AN EVALUATION OF FINANCIAL PERFORMANCE AND VIABILITY OF COOPERATIVE BANKS - A STUDY OF FOUR DCCBs IN HARYANA (INDIA)

Ramesh Chander* and Jai Kishan Chandel**

Being an important constituent of Indian Financial System, Cooperative Credit Institutions have been engaged in wide variety of activities namely, production, processing, marketing, distribution, servicing and banking with broad network of societies and banks in both urban and rural areas. Around 372 District Central Cooperative Banks (DCCBs) in India with large number of branches and extension counters cater to the needs of nearly one lakh societies in rural India. In Haryana 19 DCCBs with more than 200 branches have been operating to fulfill the needs by facilitating self-sufficiency in food grain production, creation of better employment opportunities for rural people and organizational strength to the people having limited means for their sustenance. In recent past the scams in cooperative sector, failure and closure of unviable branches, imposition of penalty by the regulators and payment of heavy money claims due to bankruptcy of cooperative banks are few significant reasons which persuade to enquire into the financial affairs of these institutions. Many banks became insolvent and others are on the brink of mergers or acquisition. In the present study, an attempt is made to analyze the financial performance and viability of four District Central Cooperative Banks (DCCBs) operating in Hisar division in Haryana for a period of twelve years (1997-98 to 2008-09) by financial analysis with different parameters and z-score analysis. The financial parameters here taken are profitability, liquidity, efficiency, solvency, risk and bankruptcy. The results reveal that four DCCBs with approximately fifty branches have not been performing well on all financial parameters taken for study. The banks performed well on one parameter but deteriorated on another and in different years as well. All the banks have been a part of bankruptcy zone (weak performance zone) throughout the study period. The banks need to visualize their operations, policies and strategies for effective utilization of available financial and human resources.

INTRODUCTION

The success of any financial system lies in the effective operations of all its components, viz. markets, services, instruments and institutions. Cooperative banks play imperative role in Indian financial system as cooperation has been inherent in Indian cultural ethos to work as a socio-economic organization for the well-being of the people. The principles and practices of cooperative system have been guiding the people for community based management of means of production and economic resources. The expectations from cooperatives have been to facilitate self-sufficiency in food grain production, creation of better employment opportunities for rural people, workers and artisans and to provide organizational strength to the persons of the limited means for their sustenance. In three tier structure of working, District Central Cooperative Banks (DCCBs) operate in the middle/district level by providing finance to the primary credit societies, accepting of deposits, granting of loans/advances, fixed deposit receipts, gold/bullion, goods and documents of title of goods, collection of bills, cheques, safe custody of valuables, agency services and work as balancing center for PACS.

The financial situation of cooperative banks in India cannot be claimed sound at present. Many banks became insolvent and others are on the verge of mergers or acquisition. Various scams have been surfaced in 2001-02 in cooperative sector which had given a big jolt to the banking sector. In 2005-06, the RBI cancelled licenses of 14 Urban Cooperative Banks and DICGC made a payment of Rs. 565 crore towards the settlement of depositor's claims. During 2006-07, as many as 25 cooperative banks closed operations resulting into a payout of Rs. 438 crore by the insurer towards settlement of depositors' claims. In the year 2007-08, failing cooperative banks have cost Reserve Bank's credit insurance arm dearly as it had to shell out over Rs. 123.37 crore towards payment to depositors of...
17 insolvent banks. The Reserve Bank’s credit insurance arm has paid over Rs. 142 crore to depositors of 19 cooperative banks that have gone bankrupt till March 2009. As 32 Cooperative Banks failed between January and December 2009, Rs. 482 crore has been paid by DICGC to settle the dues of the depositors.

Keeping in mind the vulnerable situation of the cooperative banks, many committees suggested for revitalization of cooperative banks and Government announced the financial package of Rs. 14,839-crore as suggested by A.Vaidyanathan panel. NABARD has been the implementing agency for the revival package for the Short Term Cooperative Credit Structure. As indicated in the annual policy statement of April 2008, the Government approved a package and an aggregate amount of Rs 4,740 crore has been released by the NABARD.

However, cooperative banks have made a commendable progress in extending its geographical spread and functional reach, yet huge decline in productivity and efficiency, erosion of profitability, unrealizable debts and increase in unviable branches has been seen inspite of Government help. Today, the cooperative credit institutions are facing a tough challenge to deliver on high expectations in a fiercely competitive credit environment. Concern and skepticism are expressed on their creditworthiness and viability. Considering these facts, probing into the financial and operational aspects of these institutions becomes significant. In the present study efforts are made to investigate into the financial and operational affairs of four Central Cooperative Banks operating at district level in Hisar division with focus on profitability, liquidity, solvency, efficiency, risk and viability for twelve year period (1997-98 to 2008-09).

The present study has been divided into four sections. First section covers brief review of the relevant literature. Objectives of the Study and Research Methodology are covered in second section. Third section is devoted to results and discussion part and in the fourth section conclusion and suggestions are made.

SECTION - I
REVIEW OF LITERATURE
To review the financial performance of the banks and the term-lending institutions, various committees and analysts have presented their expertise as it has been a key area of study for financial institutions and the respective governments at the global level. They have suggested various tools and techniques for effective analysis and interpretation of the financial and operational aspects of the financial institutions specifically banks. Beaver (1966), Altman (1968), Lev (1974), Argenti (1976), Bernhard (1979), Ohlson (1980), Taffler (1982), Shetty (1990), Urs and Chitambaram (2000), Chandra (2006), Singh and Singh (2006), and Ramesha and Nagaraju (2007) and various other studies have primarily focused on the analysis of financial viability and credit worthiness of money lending institutions with a view to predict corporate failures and incipient incidence of bankruptcy among these institutions.

Narsimham Committee (1991) emphasized on capital adequacy and liquidity, Padamanabhan Committee (1995) suggested CAMEL rating (in the form of ratios) to evaluate financial and operational efficiency, Tarapore Committee (1997) talked about Non-performing assets and asset quality, Kannan Committee (1998) opined about working capital and lending methods, Basel committee (1998 and revised in 2001) recommended capital adequacy norms and risk management measures, Kapoor Committee (1998) recommended for credit delivery system and credit guarantee and Verma Committee (1999) recommended seven parameters (ratios) to judge financial performance and several other committees constituted by Reserve Bank of India to bring reforms in the banking sector by emphasizing on the improvement in the financial health of the banks. Similarly various studies validate the need of better financial performance of these banks. Urs and Chitambaram (2000) studied performance of 14 District Central Cooperative Banks (DCCBs) in Kerala on 23 parameters and found inefficiency in their operations with lower capital and poor deployment of funds in the DCCBs. Bhaskaran and Josh (2000) concluded that the recovery performance of cooperative credit institutions continues to be unsatisfactory which contributes to the growth of NPA even after the introduction of prudential regulations. They suggested legislative and policy prescriptions to make cooperative credit institutions more efficient, productive and profitable organization in tune with competitive commercial banking. Jain (2001) has done a comparative performance analysis of District Central Cooperative Banks (DCCBs) of Western India, namely Maharashtra, Gujarat and Rajasthan and found that DCCBs of Rajasthan have performed better in profitability and liquidity as compared to Gujarat and Maharashtra. Singh and Singh (2006) studied the funds management in the District Central Cooperative Banks (DCCBs) of Punjab with specific reference to the analysis of financial margin. It noted that a higher proportion of own funds and the recovery concerns
have resulted in the increased margin of the Central Cooperative Banks and thus had a larger provision for non-performing assets.

Mavaluri, Boppana and Nagarjuna (2006) suggested that performance of banking in terms of profitability, productivity, asset quality and financial management has become important to stable the economy. They found that public sector banks have been more efficient than other banks operating in India.

Pal and Malik (2007) investigated the differences in the financial characteristics of 74 (public, private and foreign) banks in India based on factors, such as profitability, liquidity, risk and efficiency. It is suggested that foreign banks were better performers, as compared to other two categories of banks, in general and in terms of utilization of resources in particular.

Campbell (2007) focused on the relationship between nonperforming loans (NPLs) and bank failure and argued for an effective bank insolvency law for the prevention and control of NPLs for developing and transitional economies as these have been suffering severe problems due to NPLs. Singla (2008) emphasized on financial management and examined the financial position of sixteen banks by considering profitability, capital adequacy, debt-equity and NPA.

Dutta and Basak (2008) suggested that Cooperative banks should improve their recovery performance, adopt new system of computerized monitoring of loans, implement proper prudential norms and organize regular workshops to sustain in the competitive banking environment.

Chander and Chandel (2010) analyzed the financial efficiency and viability of HARCO Bank and found the poor performance of the bank on capital adequacy, liquidity, earning quality and the management efficiency parameters.

Centric to the ratio analysis, these studies have customized and blended financial ratios in a model form to examine and predict the financial health. Similarly, comparative performance, recovery performance, cost reduction, productivity and efficiency are vital areas which have been considered by various analysts. With inquisitiveness the present study has been undertaken with specific objectives as envisaged in the next section.

SECTION - II
OBJECTIVES AND RESEARCH METHODOLOGY
Objectives of the Study:
The study under consideration proposes to achieve the following objectives:

i) To study and examine the financial performance and efficiency of District Central Cooperative Banks operating in Hisar division in Haryana comprising of Hisar, Bhiwani, Fatehabad and Sirsa.

ii) To study and examine the financial viability of these DCCBs.

iii) To suggest measures for augmenting working and operations for these DCCBs.

Research Methodology
For proper administration, the Haryana state was divided into four divisions, A) Ambala division, which covers six districts, B) Rohtak division, which covers five districts, C) Hisar division, which covers four districts and D) Gurgaon division, which covers four districts. In the present study four districts central cooperative banks (DCCBs) of Hisar division has been covered. The study encompasses twelve year period from the financial year 1997-98 to 2008-09. The requisite data has been obtained from the published financial statements of all district central cooperative banks of Hisar division in the state of Haryana (India).

Here, an attempt is made to analyze five key financial areas (profitability, liquidity, solvency, efficiency and risk) considering the data from financial statements. Under each of these five categories of analysis four different ratios are calculated and analyzed. After calculating the average of the ratio (Mean), Standard Deviation, t-value and f-value have also been calculated to deepen the study.

Profitability Analysis- In the present study the profitability of DCCBs is tested with four profitability ratios. These are I) Net worth ratio (Net profit after tax to total shareholders’ funds), II) Return on capital employed (Net profit after tax to total assets), III) Profit margin (Net profit to total income) and IV) Net interest margin (Interest margin to total assets).

Liquidity Analysis- The liquidity of DCCBs is tested with four liquidity ratios. These are I) Cash-assets ratio (Cash plus bank balance to total assets), II) Cash-deposit ratio (Cash to total deposit), III) Cash-demand ratio (Cash to demand deposit) and IV) Working funds to assets ratio (Net working capital to total assets).

Solvency Analysis- The solvency of DCCBs is tested with four solvency ratios. These are I) Debt-equity ratio (Outsiders funds to shareholders funds), II) Capital gearing ratio (Owner’s funds to total fixed interest bearing liabilities), III) Outside liabilities to total assets (Total borrowings to total assets), IV) Fixed assets to total net worth ratio (Fixed assets to total capital).

Efficiency Analysis- To measure the efficiency
of DCCBs four ratios are calculated, viz. I) Operating efficiency (Total operating expenses to total assets), II) Cost of funds (Total interest expenses to total borrowings), III) Income productivity per employee (Net income after tax to total employees) and IV) Overhead efficiency (burden) ratio (non-interest income to non-interest expenses)

Risk Analysis- Four key ratios are applied to test risk level in DCCBs, these are- I) Equity ratio (Total equity to total assets), II) NNPA to sales (Net non performing assets to total advances), III) GNPA to sales (gross non performing assets to total advances) and IV) GNPA to asset ratio (gross non performing assets to total assets).

Bankruptcy and Financial Viability Analysis- After making above analysis, an attempt was made to evaluate the financial health and viability of these banks by using Altman Z-Score model. Altman (1968) coined a multivariate Z-score analysis to assess financial health and to predict bankruptcy. It has been considered a powerful diagnostic tool that forecasts the bankruptcy. The model is defined as: \( Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 0.999X_5 \) wherein, the variables \( X_1 \) to \( X_5 \) are computed as percentage values while \( X_1 \) is the ratio of working capital to total assets, \( X_2 \) is the ratio of retained earnings to total assets, \( X_3 \) is the ratio of earnings before interest and tax to total assets, \( X_4 \) is the ratio of market value of equity to book value of debt, \( X_5 \) is the ratio of sales to total assets. The model discriminate the sampled unit(s) in three categories in terms of Z-score output in relation to the financial performance.

<table>
<thead>
<tr>
<th>Category</th>
<th>Z-score value</th>
<th>Inference/Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Below 1.8</td>
<td>Weak performance/ bankruptcy zone</td>
</tr>
<tr>
<td>II</td>
<td>1.8 – 3.0</td>
<td>Healthy performance</td>
</tr>
<tr>
<td>III</td>
<td>Above 3.0</td>
<td>Very healthy/ sound performance</td>
</tr>
</tbody>
</table>

SECTION - III

RESULTS AND DISCUSSION

However, the overall environment including agriculture, services, industry, facilities and working culture of people are similar in these districts and there have been lesser probability of deviations in the financial results, yet the financial results differ from one bank to another as visible in the following discussion.

Profitability analysis: However, Cooperative banks are not meant for profit earning yet they can make their operations properly and discharge their obligations to different segments of the society only through earnings or profits. Following four ratios have been calculated to measure profitability of the DCCBs of Hisar division.

It can be construed from table 1 and other financial details gathered for the purpose that all the banks have incurred losses in different years under the study period. Due to this fact the net worth ratio has been negative in different years in all banks and average ratio was below the ideal ratio (10 percent) in all the DCCBs. The average score has been highest in Fatehabad followed by Sirsa and Bhiwani. The Hisar CCB has lowest cum negative score. The lower score attained by these banks reveal that the returns available to the shareholders on the capital invested by them are very less and the banks could not make proper use of capital. The dispersion in the ratios has been highest in Sirsa (13.79) and in lowest in Bhiwani (6.94). The t-values were not significant for any bank at 0.01 or 0.05 level, but f-value for the division was significant at 0.05 level. ROCE has been very less in all the banks due to the losses incurred by all DCCBs in different years under study. It has been highest in Sirsa (0.65) followed by Fatehabad. The Hisar CCB has scored zero due to heavy losses in most of the years. The lower ratio signifies that all the banks are deficient in utilizing the total investments made in fixed and current assets and leading to generation of lesser returns. The variation in these ratios is highest in Sirsa (1.25) and lowest in Bhiwani (0.33). The t-values have been significant at 0.01 level in Hisar and Fatehabad only and f-value for the division was significant at 0.05 level. The rate of profit margin has been less than 9 percent in all the banks and in Hisar it has been negative which reveal that very less part of the total income was available to the owners in the form of profits and rest of the amount (more that 90%) has been incurred in expenditure. It also shows that the amount of expenditure is very high in the Ambala division. The deviation in ratios has been highest in Sirsa (18.98) and lowest in Bhiwani (3.77). The t-value has been significant at 0.01 level in Hisar CCB only. The f-value for the division has been significant at 0.05 level. The average net interest margin has been highest in Sirsa (3.12) and lowest in Bhiwani (2.14) which reflects that the ratio of core income (income from lending operations) to income producing assets has been very less throughout the study period. Net interest margin is the difference between total interest income and total interest expenses. It shows that
the management of these banks has been unable to control the spread between interest revenue and interest costs, which lead to increase in interest costs. The variance is highest in Bhiwani (1.01) and lowest in Sirsa (0.71). The t-values have been significant in all the banks except in Sirsa at 0.01 level and f-value for the division has been significant at 0.05 level. The profitability has been highest in Sirsa followed by Fatehabad. The profitability situation has been vulnerable in Hisar with negative ratios and critical in Bhiwani.

Liquidity Analysis: Liquidity refers to the ability of a concern to meet its current obligations as and when these become due. The short term obligations are met by realizing amount from current, floating or circulating assets. The current assets should either be liquid or near liquidity.

The Cash Asset Ratio (CAR) reflects the liquidity level against the asset base in a bank. The higher the ratio, higher is the liquidity of the asset portfolio of a bank. It is evident from table 2 that in Hisar division the average CAR in the division and individually in all banks has been less than 3 percent being highest in Bhiwani (2.89) and lowest in Fatehabad (1.72) which shows that liquidity position of these banks against assets has been very poor and critical. The banks have lesser proportion of liquidity in the asset portfolio. Lower liquidity may impact the creditworthiness negatively. The dispersion in the ratio has been highest in Sirsa (1.03). The t-values have been significant at 0.01 level in all banks except Fatehabad. The f-value of the division has been significant at 0.05 level. The cash deposit ratio (CDR) denotes the liquidity and payment capacity of the banks and it has been highest in Fatehabad (7.17) and lowest in Hisar (4.08). The banks with lower ratio may face problem of timely payment to the depositors due to shortage of cash and ultimately may adversely affect the creditworthiness and profitability. The Sirsa CCB has highest variance.

<table>
<thead>
<tr>
<th>Ratio</th>
<th>DCCB</th>
<th>Average for DCCB (in %)</th>
<th>Average for the division</th>
<th>Std. dev.</th>
<th>t-value (sig 2-t)</th>
<th>F-value (sig)</th>
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<tbody>
<tr>
<td>New of Ratio</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Sirsa</td>
<td>-0.2 (1)</td>
<td></td>
<td></td>
<td>7.38</td>
<td>0.007 (0.994)</td>
<td>1.450 (0.242)**</td>
</tr>
<tr>
<td>Bhiwani</td>
<td>4.56 (2)</td>
<td></td>
<td></td>
<td>6.94</td>
<td>0.000 (1.000)</td>
<td></td>
</tr>
<tr>
<td>Fatehabad</td>
<td>7.16 (4)</td>
<td></td>
<td></td>
<td>8.78</td>
<td>0.001 (0.999)</td>
<td></td>
</tr>
<tr>
<td>Sirsa</td>
<td>7.09 (3)</td>
<td></td>
<td></td>
<td>13.79</td>
<td>0.000 (1.000)</td>
<td></td>
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<tr>
<td>Return on Capital Employed (ROCE)</td>
<td></td>
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<tr>
<td>Sirsa</td>
<td>0.00 (1)</td>
<td></td>
<td></td>
<td>0.53</td>
<td>0.027 (0.979)**</td>
<td>1.668 (0.189)**</td>
</tr>
<tr>
<td>Bhiwani</td>
<td>0.23 (2)</td>
<td></td>
<td></td>
<td>0.03</td>
<td>0.009 (0.999)</td>
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<tr>
<td>Fatehabad</td>
<td>0.54 (3)</td>
<td></td>
<td></td>
<td>0.61</td>
<td>-0.011 (0.992)**</td>
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<tr>
<td>Sirsa</td>
<td>0.65 (4)</td>
<td></td>
<td></td>
<td>1.25</td>
<td>0.000 (1.000)</td>
<td></td>
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<tr>
<td>Profit Margin (PM)</td>
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<td></td>
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<tr>
<td>Sirsa</td>
<td>-1 (1)</td>
<td></td>
<td></td>
<td>7.42</td>
<td>0.010 (0.992)**</td>
<td>1.434 (0.247)**</td>
</tr>
<tr>
<td>Bhiwani</td>
<td>2.7 (2)</td>
<td></td>
<td></td>
<td>3.77</td>
<td>0.004 (0.999)</td>
<td></td>
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<tr>
<td>Fatehabad</td>
<td>4.32 (3)</td>
<td></td>
<td></td>
<td>6.97</td>
<td>0.001 (0.999)</td>
<td></td>
</tr>
<tr>
<td>Sirsa</td>
<td>8.35 (4)</td>
<td></td>
<td></td>
<td>18.98</td>
<td>0.000 (1.000)</td>
<td></td>
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<tr>
<td>Networth Margin (NIM)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Sirsa</td>
<td>2.41 (2)</td>
<td></td>
<td></td>
<td>0.81</td>
<td>-0.018 (0.986)**</td>
<td>2.883 (0.047)**</td>
</tr>
<tr>
<td>Bhiwani</td>
<td>2.14 (1)</td>
<td></td>
<td></td>
<td>1.01</td>
<td>0.011 (0.991)**</td>
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</tr>
<tr>
<td>Fatehabad</td>
<td>2.51 (3)</td>
<td></td>
<td></td>
<td>0.8</td>
<td>-0.017 (0.987)**</td>
<td></td>
</tr>
<tr>
<td>Sirsa</td>
<td>3.12 (4)</td>
<td></td>
<td></td>
<td>0.71</td>
<td>0.000 (1.000)</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.01 level and **Significant at 0.05 level, Numeric (1-4) in braces are ratings as 1=worst and 4=best.
0.01 level in Hisar only. The t-value has been significant at 0.05 level for the division. The availability of cash in proportion to the demand deposits has been highest in Bhiwani (16.9) and lowest in Sirsa (10.5) which reveals that the banks can pay the cash in the tune of 10-17 percent (average) at a time out of total demand deposits. The situation should be improved in order to strengthen the liquidity position. The Fatehabad has highest variance in the ratio (7.23) and f-value has been significant at 0.05 level for the division. The t-values for the banks have been significant at 0.01 level in all banks. Net working capital being the difference in current assets and current liabilities is a measure of pure liquidity in bank. The average ratio of working funds to assets for the division has been 26.62 being

The higher ratio shows the better situation of working funds in the banks. The variance in the ratio has been highest in Hisar (8.06) and f-value in the division has been significant at 0.05 level. The t-values of the banks have been significant at 0.05 level in Hisar and at 0.01 level in Fatehabad and Sirsa. However the liquidity position of all the banks has been pathetic yet CCB Bhiwani has been better in comparison to other banks. There is a crunch of liquid assets in Sirsa, Hisar and Fatehabad.

Solvency Analysis: The term ‘solvency’ refers to the ability of a bank to meet its long term obligations. Long term indebtedness of an entity includes debenture holders, financial institutions providing medium and long-term loans. The long term creditors of firm are

<table>
<thead>
<tr>
<th>Ratio</th>
<th>DCCB</th>
<th>Average for DCCB (in %)</th>
<th>Average for the division</th>
<th>Std. dev</th>
<th>t-value (sig. 2%)</th>
<th>F-value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Asset Ratio (CAR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hisar</td>
<td>1.99 (3)</td>
<td>2.09</td>
<td>0.61</td>
<td>0.014 (0.989)x</td>
<td>4.987 (0.005)x</td>
<td></td>
</tr>
<tr>
<td>Bhiwani</td>
<td>2.89 (4)</td>
<td></td>
<td>0.74</td>
<td>-0.020 (0.985)x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatehabad</td>
<td>1.72 (1)</td>
<td></td>
<td>0.92</td>
<td>-0.004 (0.997)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sirsa</td>
<td>1.75 (2)</td>
<td></td>
<td>1.03</td>
<td>-0.014 (0.989)x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Cash Deposit Ratio (CDR) |
| Hisar | 4.08 (1) | 5.63 | 1.07 | -0.011 (0.992)x | |
| Bhiwani | 5.20 (2) | | 1.37 | -0.002 (0.998) | |
| Fatehabad | 7.17 (4) | | 3.8 | -0.002 (0.999) | |
| Sirsa | 6.05 (3) | | 3.83 | 0.002 (0.998) | |

| Cash Demand Ratio (CDR) |
| Hisar | 10.9 (2) | 128 | 3.5 | -0.022 (0.983)x | |
| Bhiwani | 16.9 (4) | | 5.15 | -0.023 (0.982)x | |
| Fatehabad | 12.9 (3) | | 7.23 | 0.015 (0.989)x | |
| Sirsa | 10.5 (1) | | 6.92 | -0.020 (0.985)x | |

| Working Funds Assets Ratio (WFAR) |
| Hisar | 30.2 (3) | 26.62 | 8.06 | 0.11 (0.991)x | |
| Bhiwani | 31 (4) | | 6.86 | -0.005 (0.996) | |
| Fatehabad | 16.8 (1) | | 6.35 | -0.011 (0.992)x | |
| Sirsa | 28.5 (2) | | 3.53 | 0.041 (0.968) | |

*Significant at 0.01 level and **Significant at 0.05 level, Numeric (1-4) in braces are ratings as 1=worst and 4=best
primarily interested in knowing the bank’s ability to pay regular interest on long-term borrowings, repayment of the principal amount at the maturity and the security of their loans. Thus, solvency ratios indicate a bank’s ability to meet the fixed interest, costs and repayment schedules associated with its long term borrowings.

Table 3: Solvency Analysis of Hisar Division for the Period 1997-98 to 2008-09

<table>
<thead>
<tr>
<th>Ratio</th>
<th>DCCB</th>
<th>Average for DCCB (in %)</th>
<th>Average for the division</th>
<th>Std. dev.</th>
<th>t-value (sig. 2%)</th>
<th>F-value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt to Equity Ratio (DER)</td>
<td>Hisar</td>
<td>556.6 (4)</td>
<td></td>
<td>130.2</td>
<td>0.001 (0.999)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bhiwani</td>
<td>698.1 (2)</td>
<td></td>
<td>144.1</td>
<td>0.000 (1.000)</td>
<td>7.726 (0.000)**</td>
</tr>
<tr>
<td></td>
<td>Fatehabad</td>
<td>866.5 (1)</td>
<td></td>
<td>198.6</td>
<td>0.000 (1.000)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sirsa</td>
<td>686.3 (3)</td>
<td></td>
<td>114.7</td>
<td>0.001 (0.999)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>701.88</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Liabilities to Assets (OLTA)</td>
<td>Hisar</td>
<td>38.5 (3)</td>
<td></td>
<td>6.323</td>
<td>0.001 (0.999)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bhiwani</td>
<td>323.7 (4)</td>
<td></td>
<td>3.324</td>
<td>0.003 (0.998)</td>
<td>79.188 (0.000)**</td>
</tr>
<tr>
<td></td>
<td>Fatehabad</td>
<td>61.69 (1)</td>
<td></td>
<td>6.513</td>
<td>0.000 (1.000)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sirsa</td>
<td>56.78 (2)</td>
<td></td>
<td>4.495</td>
<td>0.000 (0.999)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>47.33</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Assets to Total Capital (FATC)</td>
<td>Hisar</td>
<td>393.9 (2)</td>
<td></td>
<td>88.98</td>
<td>0.001 (0.999)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bhiwani</td>
<td>859.2 (1)</td>
<td></td>
<td>234.7</td>
<td>0.000 (1.000)</td>
<td>49.096 (0.000)**</td>
</tr>
<tr>
<td></td>
<td>Fatehabad</td>
<td>313.6 (3)</td>
<td></td>
<td>97.19</td>
<td>0.000 (1.000)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sirsa</td>
<td>226.2 (4)</td>
<td></td>
<td>37.33</td>
<td>-0.002 (0.998)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>448.23</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Gearing Ratio (CCR)</td>
<td>Hisar</td>
<td>18.9 (1)</td>
<td></td>
<td>4.59</td>
<td>-0.003 (0.998)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bhiwani</td>
<td>14.9 (3)</td>
<td></td>
<td>3.22</td>
<td>0.000 (1.000)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fatehabad</td>
<td>12.15 (4)</td>
<td></td>
<td>3.09</td>
<td>0.000 (1.000)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sirsa</td>
<td>14.91 (2)</td>
<td></td>
<td>2.28</td>
<td>0.008 (0.994)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>15.22</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.01 level and **Significant at 0.05 level, Numeric (1-4) in braces are ratings as 1=worst and 4=best

Table 3 evinces that DER has been very high for Hisar division (701.88) and ranges between 550 and 870 percent in all the DCCBs proving lower margin of safety for the creditors and the owners are enjoying the financial leverage which can be fatal for the banks in the coming future. The ratios depicted by all banks are not favorable for the long term creditors because high ratio gives a lesser margin of safety to them at the time of liquidation. The variance in the ratio has been highest in Fatehabad (198.6). The OLTA for the
division has been 47.33 percent which evident the availability of assets with all the DCCBs to pay for outside liabilities, but the banks with lower ratio are more solvent. The banks with lower ratio signify that the long term solvency of the banks is maintained as lesser outside liabilities lead to lesser payments and give more confidence to maintain higher solvency level. The dispersion has been highest in Fatehabad (6.51). Ideally FATC should be 60-65 percent but the average for the division has been 448.23 which exemplify that the value of fixed assets has been much higher than the capital available and the assets probably purchased from the borrowed amount also, which make the situation more critical. The deviation has been highest in Bhiwani (234.7). The fixed interest bearing securities are much higher than the owner’s funds and the banks are highly geared. It ranges from 12 to 19 percent and average in the division 15.22, which imply the transfer of maximum profits into interest payments and very less amount is available to the owner’s in the form of dividends. This situation can be fatal for the banks in the near future as there should be optimum capital structure in any business concern for long term sustenance. The variance in the ratio has been highest in Hisar (4.59). The t-values of the banks have been insignificant for all ratios in all banks and f-values have been significant at 0.05 level in the division. The solvency position has been best in Sirsa, average in Hisar and Bhiwani and critical in Fatehabad.

Efficiency Analysis: The efficiency ratios are calculated to measure the effectiveness with which funds are utilized in the business, how well the institution controls expenses relative to produce revenues, and how productive employees are in terms of generating income, managing assets and handling operations.

<table>
<thead>
<tr>
<th>Ratio</th>
<th>DCCB</th>
<th>Average for DCCB (in %)</th>
<th>Average for the division</th>
<th>Std. dev.</th>
<th>t-value (sig. 2%)</th>
<th>F-value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Efficiency (OE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hisar</td>
<td>2.5</td>
<td>2.39</td>
<td></td>
<td>0.56</td>
<td>-0.011 (0.992)*</td>
<td>6.211 (0.001)**</td>
</tr>
<tr>
<td>Bhiwani</td>
<td>2.09</td>
<td></td>
<td></td>
<td>0.74</td>
<td>-0.034 (0.982)*</td>
<td></td>
</tr>
<tr>
<td>Fatehabad</td>
<td>2.07</td>
<td></td>
<td></td>
<td>0.41</td>
<td>0.008 (0.994)</td>
<td></td>
</tr>
<tr>
<td>Sirsa</td>
<td>2.92</td>
<td></td>
<td></td>
<td>0.39</td>
<td>-0.022 (0.983)*</td>
<td></td>
</tr>
<tr>
<td>Burden Ratio (BR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hisar</td>
<td>0.01</td>
<td>0.34</td>
<td></td>
<td>0.56</td>
<td>-0.003 (0.998)</td>
<td>1.374 (0.264)**</td>
</tr>
<tr>
<td>Bhiwani</td>
<td>0.25</td>
<td></td>
<td></td>
<td>0.38</td>
<td>-0.015 (0.986)*</td>
<td></td>
</tr>
<tr>
<td>Fatehabad</td>
<td>0.51</td>
<td></td>
<td></td>
<td>0.59</td>
<td>0.006 (0.996)</td>
<td></td>
</tr>
<tr>
<td>Sirsa</td>
<td>0.6</td>
<td></td>
<td></td>
<td>1.24</td>
<td>0.009 (0.993)</td>
<td></td>
</tr>
<tr>
<td>Income Productivity per Employee (PPE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hisar</td>
<td>16.3</td>
<td>13.81</td>
<td></td>
<td>5.47</td>
<td>0.017 (0.967)*</td>
<td>11.564 (0.000)**</td>
</tr>
<tr>
<td>Bhiwani</td>
<td>18.1</td>
<td></td>
<td></td>
<td>4.07</td>
<td>-0.029 (0.977)*</td>
<td></td>
</tr>
<tr>
<td>Fatehabad</td>
<td>11.7</td>
<td></td>
<td></td>
<td>4.34</td>
<td>-0.031 (0.976)*</td>
<td></td>
</tr>
<tr>
<td>Sirsa</td>
<td>9.17</td>
<td></td>
<td></td>
<td>1.89</td>
<td>-0.003 (0.998)</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.01 level and **Significant at 0.05 level, Numeric (1-4) in braces are ratings as 1=worst and 4=best
The lesser the proportion of operating expenditure to total assets, the better is for the banks as more profit will be available to meet other expenditures. As depicted in Table 4 the Hisar division has not been efficient on this front as the average ratio has been 2.39 which ought to be in zero decimal points only. The dispersion in this ratio has been highest in Bhiwani (0.74) and t-values have been significant at 0.01 level in all DCCBs except in Fatehabad. Burden ratio reflects the efficiency of an institution to pay non-interest expenditure out of non-interest income. Higher ratio means lesser burden on interest income and the bank is earning more through fee based services. The burden of payment of non-interest expenditure has been higher on interest income as non-interest income has been very less being average 7.76, and less than 9 percent in all DCCBs except Bhiwani having highest ratio 11.6. The variance in the ratio has been highest in Bhiwani (13.4) and the t-value has been significant at 0.01 level in Bhiwani only. The negligible amount of income productivity per employee is an evidence for poor efficiency of the employees and management in all DCCBs. The ratio being in the range of 0.1 to 0.51 percent connotes the poor efficiency to earn income in all DCCBs. The average for the division has been 0.34. The banks should emphasize on increasing the income by utilizing their manpower effectively. The variance in the ratio has been highest in Sirsa (1.24) and the t-values have been insignificant at 0.01 level except in Bhiwani. However, cost of funds depends upon the interest rates prevailing in the market, yet the banks can minimize it with efficient management and better predictions. It has been highest in Bhiwani (18.1) and lowest in Sirsa (9.17) and more than 10 percent in rest of the banks, which connotes that Sirsa has been better and more efficient in funds management in comparison to other banks. The variance in the ratio has been highest in Hisar (5.47) and the t-values have been significant at 0.01 level except in Sirsa and f-values have been significant at 0.05 level for the division. The Hisar division has not performed well on efficiency parameter. Fatehabad has been the best performer, the average performers were Bhiwani and Sirsa. Hisar has been the worst performer.

Risk Analysis: Banks face many risks including losses on loans and losses on investments. Financial managers must limit these risks in order to avoid failure of the banks (bankruptcy). Basel Committee on Banking Supervision (BCBS) in both the accords (Basel accord I and II) have given weight to capital adequacy and risk in banks.

It is inferred from Table 5 that equity ratio has been very less (average 6.89) and less than 9 percent in all DCCBs which signals lower capitalization in the banks in comparison to the assets and has been a risky situation. Total assets being 10 times greater than total capital, exhibit that maximum amount invested in the assets has been the borrowed one and can adversely impact the creditworthiness of the banks. A bank with inadequate capital base remain in dwindling situation and face difficulty in making adequate use of assets for earning. The dispersion in this ratio has been highest in Fatehabad (1.4) and the t-values have been insignificant in all DCCBs. The GNPS has been a measure of effective sales in a bank and the ratio should be less than 5 percent as prescribed by the RBI, but in Hisar division it has been more than 5 in all DCCBs except Sirsa. Due to implementation of loan waiver scheme by the Government in the year 2008, the NPA increased tremendously in 2008-09 and affected adversely all the banks, yet the effective sales have been more than 91 percent in all the banks. The ratio and variance have been highest in Fatehabad (4.0) and t-values have been insignificant in all DCCBs. The GNPA has been highest in Bhiwani (6.23) and average for the division (5.26) which portrays that asset quality of the banks has been quite well and hence leads to lesser risk with better asset utilization. The dispersion in the ratio has been highest in Fatehabad (3.7) and t-values have been significant at 0.01 level in Hisar and Sirsa only. The ratio of Net Non Performing Assets (NNPA) to Total Advances should not be greater than 3 as per the RBI guidelines, but in Hisar division it ranges between 48 and 135 and with an average of 85.1 which indicate danger to the banks. The banks should emphasize more on better provisioning and careful lending in order to decrease the loss assets. The dispersion in the ratio has been highest in Fatehabad (67.8) and t-values of in all DCCBs have been insignificant except in Bhiwani. The f-values for the division have been significant at 0.05 level. The risk level has been lowest in Sirsa and Fatehabad, higher in Hisar but highest in Bhiwani.

It is clear from the above analysis that the banks in Ambala division have not performed well on all the parameters. One bank performed best in parameter but worst in other which prove that the overall financial performance of the banks has not quite well and all the banks have to make improvements on different fronts. In the following table an attempt is made to find out the total score and position attained by the banks.
Table 5: Risk Analysis of Hisar Division for the Period 1997-98 to 2008-09

<table>
<thead>
<tr>
<th>Ratio</th>
<th>DCCB</th>
<th>Average for DCCB (in %)</th>
<th>Average for the division</th>
<th>Std. dev.</th>
<th>t-value (sig. 2%)</th>
<th>F-value (sig.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity Ratio (ER)</td>
<td>Hisar</td>
<td>7.06 (2)</td>
<td>6.89</td>
<td>0.97</td>
<td>0.000 (1.000)</td>
<td>30.679 (0.000)**</td>
</tr>
<tr>
<td></td>
<td>Bhiwani</td>
<td>4.75 (1)</td>
<td></td>
<td>0.7</td>
<td>0.004 (0.997)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fatehabad</td>
<td>7.38 (3)</td>
<td></td>
<td>1.4</td>
<td>0.002 (0.998)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sira</td>
<td>8.38 (4)</td>
<td></td>
<td>0.74</td>
<td>0.000 (1.000)</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.01 level and ** Significant at 0.05 level, Numeric [1-4] in braces are ratings as 1=worst and 4=best

Table 6: Aggregate Score and Position of DCCBs on Five Financial Parameters

<table>
<thead>
<tr>
<th>DCCB</th>
<th>Profitability analysis (out of 16)</th>
<th>Liquidity analysis (out of 16)</th>
<th>Solvency analysis (out of 16)</th>
<th>Efficiency analysis (out of 16)</th>
<th>Risk analysis (out of 16)</th>
<th>Total (out of 80)</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hisar</td>
<td>05</td>
<td>09</td>
<td>10</td>
<td>08</td>
<td>08</td>
<td>40</td>
<td>IV</td>
</tr>
<tr>
<td>Bhiwani</td>
<td>07</td>
<td>14</td>
<td>10</td>
<td>10</td>
<td>04</td>
<td>45</td>
<td>III</td>
</tr>
<tr>
<td>Fatehabad</td>
<td>13</td>
<td>09</td>
<td>09</td>
<td>12</td>
<td>12</td>
<td>55</td>
<td>II</td>
</tr>
<tr>
<td>Sira</td>
<td>15</td>
<td>08</td>
<td>13</td>
<td>10</td>
<td>16</td>
<td>62</td>
<td>I</td>
</tr>
</tbody>
</table>

One ratio carries maximum 4 points, 4 ratios = 16 points and 20 ratios = 80 points
From table 6, it can be interpreted that in profitability analysis, the Sirsa has been the best performer with highest rating (62) followed by Fatehabad (55). Sirsa and Fatehabad performed well on profitability, solvency, efficiency and risk parameters but critical on liquidity. Bhiwani performed best on liquidity, average on solvency and efficiency but critical on profitability and risk parameters. Being average performer on solvency Hisar has been the worst performer on other four parameters and attained the lowest IV position. In addition to above analysis, the bankruptcy level has been checked with Altman’s Z-score analysis as depicted in following table 7 and figure 1.

**Figure 1 : Graphical Presentation of Z-Score Values of Hisar Division**

![Graphical Presentation of Z-Score Values of Hisar Division](image)

**Table 7 : Z-score Analysis of Hisar Division for the Period 1997-98 to 2008-09**

<table>
<thead>
<tr>
<th>Year</th>
<th>Hisar</th>
<th>Bhiwani</th>
<th>Fatehabad</th>
<th>Sirsa</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997-98</td>
<td>1.54</td>
<td>1.59</td>
<td>1.53</td>
<td>1.44</td>
</tr>
<tr>
<td>1998-99</td>
<td>1.44</td>
<td>1.45</td>
<td>1.35</td>
<td>1.49</td>
</tr>
<tr>
<td>1999-00</td>
<td>1.55</td>
<td>1.53</td>
<td>1.44</td>
<td>1.49</td>
</tr>
<tr>
<td>2000-01</td>
<td>1.26</td>
<td>1.34</td>
<td>1.40</td>
<td>1.49</td>
</tr>
<tr>
<td>2001-02</td>
<td>1.40</td>
<td>1.35</td>
<td>1.49</td>
<td>1.49</td>
</tr>
<tr>
<td>2002-03</td>
<td>1.40</td>
<td>1.35</td>
<td>1.49</td>
<td>1.49</td>
</tr>
<tr>
<td>2003-04</td>
<td>1.16</td>
<td>1.35</td>
<td>1.49</td>
<td>1.49</td>
</tr>
<tr>
<td>2004-05</td>
<td>1.19</td>
<td>1.35</td>
<td>1.49</td>
<td>1.49</td>
</tr>
<tr>
<td>2005-06</td>
<td>1.35</td>
<td>1.35</td>
<td>1.49</td>
<td>1.49</td>
</tr>
<tr>
<td>2006-07</td>
<td>1.35</td>
<td>1.35</td>
<td>1.49</td>
<td>1.49</td>
</tr>
<tr>
<td>2007-08</td>
<td>1.35</td>
<td>1.35</td>
<td>1.49</td>
<td>1.49</td>
</tr>
<tr>
<td>2008-09</td>
<td>1.35</td>
<td>1.35</td>
<td>1.49</td>
<td>1.49</td>
</tr>
</tbody>
</table>

have been a part of bankruptcy or weak performance zone and even not touched the floor line for healthy zone. DCCBs Hisar and Bhiwani have been the worst performers having average values 1.43 and 1.42 respectively. It proves that these banks lack in maintaining proper level of working capital, shortage of retained earnings, lower rate of returns and less business in terms of loans and advances. The overall performance of DCCBs Sirsa and Fatehabad has been better with average score 1.52 and 1.49 respectively but these banks too unable to enter the healthy zone. This situation shows the poor and vulnerable financial viability of these banks and requires intervention of administration for proper working and operations.

**CONCLUSION AND SUGGESTIONS**

The present study has been an attempt to identify the financial performance and efficiency of District Central Cooperative Banks (DCCBs) operating in Hisar division in Haryana comprising of Hisar, Bhiwani, Fatehabad and Sirsa. The results reveal that DCCB Sirsa and Fatehabad scored first and second position respectively by performing well profitability, solvency, efficiency and risk parameters but critical on liquidity. Bhiwani performed best on liquidity, average on solvency and efficiency but critical on profitability and risk parameters. Hisar attained the lowest position and has been worst performer on all parameters except solvency. The z-score analysis
elucidates that all the DCCBs are in weak performance (bankruptcy) zone throughout the study period which evident the danger to the banks. The banks should emphasize on proper utilization of the available resources including manpower in order to increase the profitability, liquidity, and efficiency. The banks should also lower the NPAs so that risk can also be minimized. As the banks have been suffering from financial mismanagement and underutilization of resources, so these banks should change their vision besides bringing transparency in their working to sustain in the competition and become dynamic financial institutions.

REFERENCES


VOCATIONAL EDUCATION AND TRAINING – NEEDED PARADIGM SHIFT

Megha Aggarwal*

The importance of vocational education and training in India, for its quicker economic growth in globalize world, needs hardly be emphasized. The weakest link in India today in this respect is not the dearth of engineers, managers and IT professionals, it is the shortage of young skilled workers to make our factories run, to provide top notch ancillary services to a host of installations. In fact, the existing set-up has led to a mass churning of graduates who are not needed by the industry as they are not adequately equipped with the basic-technical know-how and skill. There is, therefore, an urgent need to evolve high quality relevant education system in the country in collaboration with established private players.

1. INTRODUCTION

Most policy decisions in India invoke the ‘guns and butter’ trade-off due to limited resources and their usage for many conflicting goals. Therefore, policy makers in India have to make hard choices. However, there are some critical issues, the solutions for which lie less in resource allocation, and more with a change in policy and mindset. This article focuses on one such issue – the severe need that India has for skilled workers, and the inability of our existing vast educational system to produce them.

2. PRESENT SCENARIO

According to the International Labour Organisation (ILO), India has approximately 39 million registered unemployed persons. There are probably another 260 million who are underemployed or unemployed in the age group of 18-50 years, according to iWatch, a Mumbai-based voluntary organization. At the same time, the organized private sector is struggling to find skilled workers, which in turn is impacting its ability to compete on a global scale.

Take the example of steel. India is targeting an increase in steel capacity by 120 per cent, to 120 million tons by 2019-2020. To achieve this, in the next few years more than eight million skilled people will be required to work in this sector. According to industry experts such as Tata Steel’s HR head, the country lacks the skill development centres to supply these human resources. This is the tragedy of our labour scenario – a large number of unemployed and unemployable young Indians, who are hungry to learn, but who lack the skills needed to participate in the Indian growth story.

*cursory glance at several industrialized nations indicate that a thriving, dominant Vocational Education and Training (VET) system can play a significant role in reducing this imbalance. Vocational education focuses on the creation of skills in specific trades that generates employability. Its focus is significantly different from higher education in that it recognizes a very basic fact from operations theory – our products, services, and potentially our long-run welfare are only as good as the weakest link in the chain paramount importance to India’s economic and social development, if we want India to become a force to be reckoned with globally.

For example, world-wide, about 80 per cent of the population between 15 to 35 years of age learns a vocation, a skill or a trade, with a choice of 3000 (VET) programs. India has only identified about 500 courses and according to a recent World Bank study, less than three per cent of our population undergoes formal VET training.

We live in a world with diverse and evolving production lines, which in turn require diverse skill sets. While a country needs someone to produce research on say, how to build the best goods, it also needs someone who is trained to a world-class level, to man and operate the technical apparatus used to produce and maintain these world-class goods and services. The weakest link in India today is not a lack of engineers and doctors, business school students or IT professionals. It is the lack of young skilled-workers to make our steel factories run, to provide top-notch ancillary services from automobile repair and white-goods installation to planning our cities better and improving our revenues from tourism.

2.1 Large Numbers, Little Impact

*An alumnus of London School of Economics and currently a social entrepreneur settled in London (U.K.).

*The author is grateful to Dr. K.L. Johar, former Vice-Chancellor of G.J. University of Science and Technology, Hisar for constructive comments and suggestions.
Our ambitious growth forecasts are partly based on what is known as the ‘demographic dividend’. India is a very young country with over 770 million people under the age of 35. The average age in India is 25 years, compared to China, where the average age is 34 years and Europe, America or Japan, where it is 40-45 years. We expect this to translate into higher growth, via improved output, production and consumption. But the ‘dividend’ cannot come from the numbers alone; the nation will also require its young population to have the skills that increases productivity and output.

According to the Modular Employment Skills (MES) initiative by the Directorate General of Employment and Training (DGET) only about 2.5 million vocational training seats are available in the country, whereas about 12.8 million people enter the labour market every year. The large gap is partly due to the lack of high quality VET institutions. However, there is also another reason; the student population does not perceive VET as an option that gets them what they aspire for. An optimal strategy has to address both why more Indian students are not taking up vocational education, as well as aim to correct the ineffectiveness of existing providers to attract and equip motivated students with skills to become part of a productive workforce.

The good news is that vocational education is making its way on to the radar of the various influential bodies that have the power to generate change. For instance, the Prime Minister’s National Council on Skill Development has been established with a target of creating 500 million skilled people by 2022. There is growing engagement by the World Bank, the Human Resource Development Ministry, industry organizations like the FICCI and CII and various consultants who recognize the importance of a skilled and employable youth population.

Industry insiders, however, are aware that mechanisms for promoting vocational education have been around in the Government for ages, in different shapes and forms, and have failed dismally for the most part. There are close to 7000, where training is imparted in 128 trades. The period of training varies from 6 months to 3 years, while the entry qualifications are academic and vary – from those who have passed class 8 to 12. These institutions are widely perceived – both by students and the industry – as being ineffective and out of touch with industry needs. Of the 128 trades they teach, many such as turners, machinists and grinders have been rendered obsolete by technological advances. The curriculum for several of the others e.g. several engineering trades has not been revised in several decades.

This has led to a mass-churn of graduates who are not needed by the industry and are not equipped with the basic technical know-how of their trade and as a result are becoming a part of India’s vast unemployment pool. At the same time, the government is encouraging private sector participation in the form of Public-Private-Partnership (PPPs). However, due to the lack of a transparent and intuitive accreditation system, a multitude of unaccredited institutions have sprung up in places, and a lack of any formal accreditation makes accountability and quality control impossible. There are several thousand community polytechnics that are training about 450,000 people a year, and none of these program has been evaluated rigorously.

Unfortunately, simply reducing existing government inefficiencies and involving the private sector will not automatically ensure that parents will want their children to take up vocational education. It is dangerous to discount the very deep-rooted stigma associated with vocational training. It is common perception amongst parents and students that going for any sort of vocational or skills-based training would lead to eventual employment (if at all) in a ‘blue collar’ job, which is considered less respectable. Also vocational education is perceived as a dead-end, with no existing linkages to the formal higher education system.

Given these challenges, the critical message to get across is that not everyone should (as opposed to can) become an engineer, MBA, lawyer or a doctor. It is only by demonstrating that vocational education allows people to improve their livelihoods by getting jobs they desire that this mindset can be shifted.

At this stage, as the next new wave of vocational education and training approaches us, we need to ensure that we do not repeat mistakes from the past. This is all the more critical as the Government is planning to invest significant resources to scale up VET in India. It is critical that we step back and ask ourselves what key principles policy makers have to keep in mind while developing a model for the “perfect” institute for vocational education, which will be able to deal with both demand and supply hurdles faced by skills-based training today.

3. THE GOLDEN RULES FOR POLICY-MAKERS

Vocational education has evolved over the last few
decades in other countries, and their experiences are extremely valuable resources for our policy makers. The “golden rules” that a system of vocational education should follow are:

- Institutions should be able to understand and evolve alongside industry needs, through a dynamic structure and deep involvement of industry practitioners in institution design and function.
- Institutions should avoid narrow focus on just one skill, by equipping students with generic skills such as problem solving, basic computer literacy, language and communication skills to make them employable.
- Institutions should incorporate motivation into criteria for admission, as opposed to using purely academic benchmarks.
- Components of general education within vocational education should be established, and institutions should have links with traditional higher education institutions.
- The policy making process for vocational education should be streamlined, with transparent accountable mandates established for various supervisory entities.
- Accreditation bodies should be publicly accountable and monitored on a regular basis.

Vocational education in Japan on the other hand, is mostly run by the private sector and boasts of some of the most innovative and responsive vocational training institutes. They offer some very compelling case-studies on the critical need for institutions to be able to evolve to meet the requirements of the economic landscape. Their focus has continually shifted in response to Japan's changing output profile. This was made possible by very strong linkages with industry, with courses on offer being dictated by societal needs coming from industry. Also, motivation of the students is the sole basis for admission into several of these colleges, not academic ability. They accept all those who are motivated, and whenever the capacity is filled they close applications. Their teaching staff is learning constantly, and there is a healthy turnover in staff that often goes back to industry.

The advantage of a practitioner faculty is being widely recognized even outside the space of vocational education. A general higher education giant like the University of Phoenix subscribes almost completely to this model. Their faculty primarily comprises of industry practitioners who hold regular industry jobs and teach on a part-time basis. This model has generated shock-waves throughout the US since it goes against the traditional “knowledge-based” structure of higher education. However, the model has been a huge success where few can argue with the results as they are observed in placement statistics as well as the average quality of students.

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Vocational education system in Korea has evolved considerably since it was set up in the early 1960s. While initially the emphasis was on churning out semi-skilled workers for the industry, the current focus is on equipping students with basic knowledge and skills and providing them with a foundation which will enable them to learn further. Some key features of the system include:

- Delaying streaming into vocational education till high school (for three years after grade 11). All students undertake a common national curriculum in the first year of high school, following which they choose to enter the general or vocational stream for the remaining two years – however the vocational stream includes extensive elements of general education;
- Ensuring the vocational stream is not dead-end – by allowing vocational students to proceed to higher education;
- Financing vocational education through government
and private resources – about 40 per cent of financing for vocational education comes through entrance and tuition fees; and

- Linking up vocational schools with specific industries to ensure that curriculum and outputs match industry needs.

4. NEEDED: A SYMBIOTIC RELATIONSHIP

The challenge for Indian policy makers is to ensure that both the supply-side players i.e. the government and the private sector, enter into a symbiotic relationship to battle the perception issue plaguing the demand for vocational education. They need to work with each other to create impact on a large-scale to plug the massive human resource gap. The government has the advantage of existing infrastructure, credibility and scale, whereas the private sector is innovative, dynamic with strong links to the industry space. At the same time, industry is recognizing the importance of having skilled workers and is coming forward to actively involve itself – we can see this in the form of several industries adopting it and the Confederation of Indian Industries (CII) entering into a partnership with corporate organizations such as IndiaCan.

There is no denying that the task ahead is daunting. Unsurprisingly, the single biggest source of hope lies in the youth. I recently visited Radaur, a village in Haryana with a population of under 15,000 people. The wide range of students, from class 10 students to MBAs, were for the most part from modest backgrounds, with parents employed as sweepers, drivers and small shop owners. However, their motivation and hunger to succeed was evident, as was the recognition that in order to get employment they need to be equipped with not just a degree but with employable skills – trade based and soft. The concept of participatory management is a panacea for educators, educational planners and administrators in country like India.

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ANALYSIS OF FEATURES AFFECTING TESTING IN OBJECT ORIENTED SYSTEMS

SUJATA KHATRI* and R.S. CHILLAR**

As we are moving from developing traditional procedural systems to object oriented systems, the complexity which found in functions and procedures is moving to the interconnections among its components. Earlier the faults being in the software units, the problem is now primarily in the way in which we connect the software. Software testing is difficult and expensive and testing object oriented system even more difficult. Testing of object oriented software has presented a numerous variety of new challenges due to its features like encapsulation, inheritance, polymorphism, coupling and cohesion. A tester often needs to spend significant time in developing lengthy testing code to ensure that system under test is reasonably well tested. Substantial research has been carried out in object oriented analysis and design. However, relatively less attention has been paid to testing of object oriented programs. In this paper we investigate various factors which make testing more complicated in object oriented programs.

INTRODUCTION

Software testing is an important and integral part of software development process. In traditional procedural language the basic component is function and testing method for such component is input/output. In object oriented systems the approach is different. The basic component is represented by class which is composed of data structure and set of operations. Object oriented technology has been widely studied and applied due to its advantage in improving the productivity and reliability in software development. Substantial research has been carried out in object oriented analysis, design. However relatively less attention has been paid to testing of object oriented programs. Testing of object oriented software has presented a numerous variety of new challenges due to its features. With object oriented approaches testing should center on objects, classes, super classes, inheritance and polymorphism, instead of subprograms. What is that makes code hard to test in object oriented systems?

Software testing is affected by many different factors. Object oriented programs have some unique features which facilitate software reuse and component based development. The faults related with these features cannot be detected only using traditional testing techniques. There is number of test issues that are unique to object oriented software. Several researches have proved that some traditional testing techniques are not effective for object oriented software. Many of the interactions that occur among program units take place through complex state interactions due to inheritance and polymorphism. In this paper we investigate various factors object oriented programs in detail which makes testing more complicated. Object oriented features introduce new testing that cannot be easily addressed with the previous techniques used in traditional approaches and require definitions of new techniques, new problems that require new solution. Here we identify six critical features namely encapsulation, inheritance, polymorphism, dynamic binding, coupling and cohesion and abstract cenes. We consider these features separately to identify the different problems.

FACTORS AFFECTING TESTING IN OBJECT ORIENTED SYSTEMS

(i) Encapsulation/Data Abstraction: Encapsulation enables the programmer to hide design decisions within the implementation and to narrow the possible interdependencies with other components by means of interface. If a programmer changes only the implementation of unit leaving the interface same then he needs to retest that unit and any unit that explicitly depends on it. Hence, when we modify the super class then it is necessary to retest all its subclasses since they depend on it in the sense that it inherits its method. There are both benefits and dangers to this abstraction. The benefit is that the closer the implementation is to logical design, the easier to understand the intended function of code. The danger is that the further the implementation is from machine computation, the harder to understand the actual function of code. The abstraction power makes it easier for programmers to
write misleading code. Informally, it is easy to tell what the code was supposed to do, but hard to tell what it actually does.

Testability of software consists of two key factors: controllability and observability. The capability to control the inputs of a given program under test is controllability and observability is the ability to examine intermediate outputs of program i.e. how input is processed to get output. Encapsulation is a major obstacle for both controllability and observability.

Data abstraction refers to the act of representing essential features without including the background details. Also due to data abstraction there is no visibility of the insight of objects. The data is not accessible to the outside world and only those functions which are wrapped in the class can access it. This data hiding makes it difficult for the tester to check what happens inside an object during testing. For example:

```java
Class sample{
    Private:
        int a;
    public:
        void check sample status( ){
            ............
            If ( a==1).....
            Else if (a....)
                }.....
            }

In this example attribute a is not accessible as it is declared as private and the behavior is strongly dependent on it hence affecting controllability and observability.

An encapsulated class is usually the focus of unit testing. However operation within the class is the smallest testable unit. Because class can contain a number of different operations, and a particular operation may exist as part of number of different classes, the strategies applied to unit testing must change. Now you can no longer test a single operation in isolation as happens in traditional procedural language but rather as a part of class. Class testing for object oriented software is equivalent of unit testing of conventional software. Unlike unit testing of conventional software which focuses on algorithmic detail of module and data, class testing of object oriented software is driven by operations encapsulated by class and state behavior of class.

Hence Encapsulation creates many problems as it makes it difficult to identify the basic unit to test. In general, it is not possible to observe input/output relation. It makes the state of object inaccessible. Hence, when abstraction works well, it hides details that need to be tested, so testing becomes easier. But when abstraction works poorly, it hides details that need to be tested, so testing becomes harder.

(ii) Inheritance: In the early years it was believed that inheritance will reduce the need for testing. Because the assumption was that if we have well tested super class, we can reuse its code without testing it and also a good quality test suite used for a super class will also be good for a subclass. So actually it provides the idea of reusability. But both the claims are wrong. For example:

```java
Class parent {
    Int x= 4;
    void print(){
        System.out.print(x);
    }
}
Class Child {
    Int a=2;
    }
Class sample {
    Int x= 4;
    void print(){
        Child c= new Child()
        System.out.print(x);  c.print ( );
    }
}

What will be printed? Is it the intended value?

Inheritance causes lots of problems from testing point of view.

(a) Is it necessary to test whether a subclass specific constructor is correctly invoking constructor of the parent class. Because when both derived and base class contain constructor, the base constructor is executed first and then the then the constructor in derived class.

(b) We need to know that whether we can trust features of classes we inherit from or need to retest all the features of derived class again which it inherits from the parent class. For example, consider a class hierarchy in which a operation x is defined for the super class and it is inherited by a number of sub class. Each subclass uses operation x, but it is applied within the context of the private attributes and operation that have been defined for the subclass. Because the context in which operation x is used varies in subtle ways, it is necessary to test op. x in the context of every subclass. This means testing of x in standalone fashion (i.e. conventional approach) is ineffective in object oriented context.

(c) Inheritance makes the subclasses dependent on the super class and a change in the super class will directly affect the subclasses.
that inherit from, it means we have to retest the subclasses again making it more complicated.

(d) Testing is also affected by the depth in inheritance tree i.e. more the depth of a tree more testability is required. For instance multiple inheritance as the sub classes are further derived, complexity also go on increasing. Hence, testability is inversely proportional to depth of tree.

(e) The number of children i.e. more the subclasses created from a super class than more testing is required. As all subclasses which are inheriting the features of super class need to be tested again in their context.

(iii) Polymorphism: It allows an object reference to bind with the objects of other classes. Method overriding is a way of giving a method one name that is shared up and down in a class hierarchy, with each class in hierarchy implementing the method in a way appropriate to itself. The decision as to which method is to be used is left till run time using a technique called Dynamic binding. If the subclass includes a method with the same “signature” as a method in the super class the super class will not be inherited. Dynamic binding allows the same statement to execute different method bodies. Which one is executed depends on current type of the object. For example the operation addition generates sum for two number if the operands are strings, than it will produce a third string by concatenation. These features make testing more complicated as exact data type and implementation cannot be determined statically.

(iv) Dynamic Binding: To understand the problem caused by dynamic binding and method overriding we consider the following example in the figure given below suppose some instance of T is used that calls a method T.y() followed by method calls T.z() and T.w(). state variables T.a and T.c. It does not create any data flow anamoly as T.a and T.c are already defined by T.y(). But if the call to T.y() is followed by T.z() using instance of S, an anamoly would exist because T.c is used by T.w() but was not defined because S.y() was called instead of T.y().

In traditional procedural language procedure calls are bound statically means the code associated to a call is known at compile time (5). But in the presence of Polymorphism, the code associated with a polymorphic reference is known only at run time. For example consider the Procedure draw() in figure given below. The draw() procedure will be redefined in each subclass that define the object. At run time the code matching the object under current reference will be called.

![Diagram](insert image here)

Late binding introduces undecidability concern in program based testing. To gain confidence in code containing in method calls on polymorphic entities, all the possible bindings need to be exercised but exhaustive testing of all possible combination of bindings may be impractical. Also, if message is sent from one object to other object and if both objects are polymorphic in nature than number of possible combination depend on type of sender, type of receiver, type of parameters leading to a further increase in number of test cases to be generated.

(v) Coupling and Cohesion: Coupling is an inter-module concept which captures the strength of interconnection between modules. Three different types of couplings are needed for testing i.e. parameter coupling, shared data coupling and external device coupling. Parameter coupling occurs whenever one procedure passes parameters to others, shared data coupling occurs when two procedures reference the same global variable, and external device couplings occur when two procedures access the same external storage device. The more tightly coupled the modules are, the more dependent they are on each other and more difficult is to understand and test them (6). The degree of coupling between a module and another module depends on how much information is needed about the other module for understanding and modifying this module. More the module coupled more the system required test cases to test a class. Tightly coupled system tends to exhibit the problems more than loosely coupled system as change in one module usually forces a ripple effect of change in other
The interaction between components with an Object oriented programs is actually the interaction or coupling between classes. There are two types of interactions between classes: through class inheritance i.e. when new classes are derived from the existing classes means we are increasing the coupling factor and through direct method calling i.e. when we are sending message from one object to another object. We have already discussed factors related to the class inheritance factors. A class is coupled to another when method declared in one class use methods or variables defined by other. Coupling between classes through message passing will increase the no. of test cases needed to cover a certain testing tactics. For e.g. if a class A is coupled with n no. of classes. If we test class A we must go through all n classes with which it couples. Thus n times more test cases are needed to cover coupled class A. Therefore Testability of a class is inversely proportional to coupling number.

\[ T(A) = \frac{1}{n} t(A) \]

Where n is the coupling number of class and t(A) is the testability of class before considering its coupling factor.

The 'cohesion among methods' within a class is a measure of how closely those methods are related to local instance variables within the class. It measures the degree of similarity of methods within a class (6). The greater the number of similar methods, the more cohesive is the class. Cohesiveness among methods within a class is desirable means decreasing number of methods, the size of methods and hence the testing efforts. Low cohesion usually means poor design or poor organization of a class and thereby increasing the complexity of a class and increasing the testing efforts. Therefore, the more cohesive are the methods within a class, the higher the testability of that class. The lack of cohesion in methods results in lowering the testability of the class. Hence Testability of a class is directly proportional to cohesion.

(vi) Abstract Classes: These are the classes which are used to create objects. It is designed only to act as a base class (to be inherited by other classes). These classes cannot be instantiated and thus cannot be thoroughly tested. Only classes derived from the abstract class can be tested, but errors can be presented also in the super class i.e. abstract class. For example first, we declare an abstract class, draw object, to provide member variables and methods that are wholly shared by all subclasses, such as the current position and the move method. Draw object also declares abstract methods for methods, such as draw or resize, that need to be implemented by all subclasses but must be implemented in different ways.

```java
abstract class DrawObject {
    int a, b;
    ...
    void move(int newA, int newB) {
        ...
    }
    abstract void draw();
    abstract void resize();
}
```

Each non-abstract subclass of DrawObject, such as Circle and Rectangle, must provide implementations for the draw and resize methods:

```java
class Circle extends DrawObject {
    void draw () {
        ...
    }
    void resize () {
        ...
    }
}
class Rectangle extends DrawObject {
    void draw () {
        ...
    }
    void resize () {
        ...
    }
```

Here the abstract class Drawobject cannot be instantiated alone and making it difficult to test. Hence we need to write a abstract test class for every abstract class.

RELATED WORK: The problem of identifying various difficulties arises as testing object oriented system is extremely relevant and has been tackled in several research papers. Most of the papers that address this problem propose one or two factors. Some work investigate inheritance related problems (2) and other investigates polymorphism related problems (5). We have taken six factors all together and how they make testing difficult in object oriented systems. The purpose of this paper is to explore the various factors that affect testability of object oriented software. The testability presented here is all related to the testability of classes and methods and interconnection among them. The testability of an object oriented programs
is the combination of all these factors from program level down to method level.

RESULTS AND FINDINGS

Object oriented programming languages may reduce some kind of errors, however they increase the chances of others. Methods tend to be small with low algorithmic detail hence making, path faults are less. But encapsulation, inheritance, and polymorphism, coupling, and cohesion create more problems or increase the chances of errors. Inheritance is one of the primary strengths of object-oriented programming. However, it is precisely because of inheritance that we find problems arising with respect to testing. Encapsulation, together with inheritance, which ought to bring a reduction in testing problems, compounds them instead.

CONCLUSION

Object oriented approach has become integral part of software development process. Traditional software engineering approach has been converting into object oriented engineering. The testability factors in object oriented described above is all related to the testability of classes and methods. The testability of object oriented program is the composition of all these factors. Object oriented programming languages may reduce some kind of faults, however they increase the chances of others due to these factors. Hence more efforts need to be undertaken to cover these factors while developing new object oriented tools.

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SUSTAINABLE DEVELOPMENT OF PILGRIMAGE TOURISM:
A STUDY OF SHRI MATA VAISHNO DEVI SHRINE

Bharti Gupta*, Jaya Bhasin** and S.C. Bagri***

Economic agendas are the prime focus of the authorities involved in the developmental plans for pilgrimage tourism. The members of the authorities share a myopic vision of huge economic benefits out of the infrastructural developments which can increase their catering and clearing capacities in case of heavy rush of pilgrims. The primary importance to economic returns from pilgrimage tends to ignore the sustainability of the basic elements of environment of the destination. The ignorance of the basic elements of environment in developmental plans put adverse impact on environment. To check this adverse impact, there is a need to update and reorient the understanding of the authorities responsible for development. This study is an effort to empirically examine the impact on the basic elements of environment due to pilgrims’ influx to the shrine of Shri Mata Vaishno Devi on the basis of the expectations and experiences of the pilgrims and the insights from board officials.

INTRODUCTION
Tourism can be viewed as an interaction between cultures and sub cultures. Seen in this perspective tourism involves generation of tourists, their travel and their stay at a particular destination. Weaver (1997) defines tourism as “the sum of the phenomena and relationship arising from the interaction among tourists, business suppliers, host governments, host communities, origin governments, community and nongovernmental organizations, in the process of attracting, transporting, hosting and managing these tourists and visitors.”

The economic benefits of tourism have made governments to take interest in tourism development in an institutional manner. A man made attraction needs to have well planned initiatives on the part of developers, however a natural attraction which is known at large always motivates visitors on its own credentials for which no extra efforts are involved in respect of marketing by the tourism development enterprises. In India, pilgrimage destinations are mostly in locations full of natural bounty. As such, in case of religious destinations, faith and natural beauty exist as dual motivation for visitors. Realizing the potential of pilgrimage destinations in tourism promotion, both state and central governments in India have taken initiatives in facilitation of services and infrastructure. Revenue generation from such destinations is many times rated in terms of the whopping numbers of visitors and the donations made by them to the shrine. Number and donation as a criteria for success is out of the mindset where only economic benefit is at the focus and the consequent environmental cost incurred is just ignored. In tourism management, concepts like alternative tourism, carrying capacity, sustainable tourism, etc have come up as intelligentsia has become aware of the various adverse environmental impacts that have surfaced due to the unplanned tourism development. The extent of human impact on natural systems and environmental issues began to gain more ascendancy by the late 1960s and also with the rapid growth in tourism experienced in the second half the 20th century (Fergusan, 1996). It has been rightly observed that “if tourism is a tool for economic development, then carrying capacity is the compass and eco tourism is the road map for sustaining economic development.”(UNDP/WTO, 2005).

REVIEW OF LITERATURE
There is significant research work in view of unplanned tourism growth that has damaged the natural and socio-cultural environments of many tourism destinations (Singh, 1989). These undesirable side-effects have led to the growing concern for the conservation and preservation of natural resources, human well being and the long-term economic viabilities of communities (Bagri et al., 1997). Middleton (1996) suggested to have a balance between the ‘top-down’ and the ‘bottom-up’
approaches and has further suggested a constructive partnership between all bodies as a necessary condition for sustainability to save the tender ecologies. There are numerous case studies related to planning and development of tourism resources at national level in maintaining sustainability of tourist destinations. The issues of maintaining sustainability in Garhwal Himalaya due to the increase in pilgrims and its effect to the environment and the mountain ecosystem have been discussed extensively (Kaur, 1987). Various deliberations suggest that tourism resources should not be consumed, depleted or polluted in such a way as to be unavailable for the use by future generations of tourists (Burton, 1995). Delivering a Sustainability Strategy for tourism destinations is the crying need of the hour, especially in the eco-sensitive areas. Comprehensive planning is to be recommended for overall tourism development in mountain region (Australian Government, 2004). The disturbance to the ecosystem in maintaining the sustainability while promoting tourism in mountainous areas is highly risky (Gurung, 1998). Various measures like Environmental impact assessment (EIA) and Carrying Capacity Assessment provide a basis for assessing the plan and implementing the tourist facilities and help for better maintenance and better results in achieving sustainability (Mc Intyre et al., 1993). Thus, Planning is of immense significance to check the negative impacts of tourism (Singh and Kaur, 1985). In this backdrop, the focus of the present study is upon the sustainability related issues of pilgrimage destination.

STUDY AREA

This study has taken up a case of Katra town, the base camp for pilgrimage to Shri Mata Vaishno Devi Bhawan, which is receiving nearly 7 million pilgrims annually due to Shri Mata Vaishno Devi shrine. Katra has been taken for the study purpose because of its huge inflow of pilgrims. It lies at an altitude of 3000 mts above sea level and is located at the foothills of sub Himalayan ranges, known as Shivalik hills, in the J&K state of northern India. On north and northwest of this town runs a sacred Banganga and on south and southwest runs Bhoomica rivulet. Katra town is located 635 km towards the northwest of New Delhi on national highway 1A and is about 50 km from the Jammu, the winter capital of Jammu and Kashmir.

RESEARCH METHODOLOGY

(A) Objectives of the study

1. To find out the significance of difference between the expectation and experience of pilgrims visiting Shri Mata Vaishno Devi Shrine with respect to the various environmental aspects.

2. To compare the experience of pilgrims with the perception of the shrine board officials with respect to the environmental aspects.

3. To give suggestions in the context of the sustainability of the destination of Shri Mata Vaishno Devi Shrine.

(B) Hypothesis

H₁ There is no difference between the expectation level and experience of the pilgrims visiting Shri Mata Vaishno Devi Shrine with respect to various environmental aspects.

H₂ There is no difference between the experience level of the pilgrims and perception of the board officials of Shri Mata Vaishno Devi Shrine with respect to the environmental aspects.

(C) Data Collection and Statistical Tool

The research is based on both primary and secondary data. The primary data collection has been done with the help of schedule during the peak months of the pilgrimage. The schedule consists of 7 questions at five point likert scale with score 1 to 5, where 1 represents highly disagree and 5 represents highly agree.

Independent t-test and paired t-test are the two statistical tests which have been applied in this study. The independent t-test has been applied to test the significance of difference between the experience of the pilgrims and the perception of the officers. The paired t-test has been applied to test the significance of difference of opinion of the pilgrims before the start of the pilgrimage and after the pilgrimage i.e. the difference between the expectations and the experiences of the pilgrims.

ANALYSIS AND INTERPRETATION

In Table 1, the positive and insignificant mean difference for the statement no.1 with values greater than 3.5 shows that the vehicular traffic in Katra has affected the air quality to some extent. The expectation mean value for the statement pilgrimage has increased the erosion problem and environmental accidents like land slides is 2.9067 and experience mean value is 2.9867, with mean difference of .08. This shows that pilgrims are almost not sure about whether the erosion problem and environmental accidents like landslides have been one of the affects of pilgrimage. This difference between the expectation and the experience for the statement numbers 1 and 2 is quite insignificant showing that the pilgrims hold the same view before and after the pilgrimage.

The statement tourism has increased the
contamination of water bodies such as Banganga has mean experience value 4.60 and mean expectation 4.330 with positive mean difference of .2667. The insignificant difference of mean shows that pilgrims agree to the fact before and after the conduct of their yatra that the pilgrimage has increased the contamination of water bodies. The positive mean difference reveals that their experience of yatra further confirmed their earlier disposition.

The experience mean value 4.0 and the expectation mean value 3.46 for the statement ‘increased number of pilgrims at the site has increased demand of water resources which has resulted in shortage of these resources’ reveal that pilgrims were not sure about it before the start of the yatra. Their experience has made them to believe that heavy rush of pilgrims has affected the water resources at the shrine. The significant difference with t-value 8.082 emphasizes that the matter needs a consideration.

Vegetation on Trikuta hills has been affected adversely due to the development projects of the destination has mean value expectation 2.9333 and mean value experience 2.733. The mean values and insignificance of the difference reveal that the pilgrims are almost not sure about it both before and after the pilgrimage.

The significant level of difference between the experience mean value of 4.7267 and expectation mean value of 3.726 for the statement ‘heavy rush of pilgrims either at Banganga or Bhawan or Adhkuware cause congestion and suffocation’ show that the pilgrims agree to this fact that crowd at this shrine causes congestion and suffocation. The positive mean difference is also confirming the same.

The statement ‘there are frequent sights of garbage and unhygienic conditions en route the shrine’ has mean value expectation 1.6067 and the mean value experience 1.2667 with negative mean difference (-.34). These values show that pilgrims disagree with any frequent sight of garbage and unhygienic conditions. Before the conduct of pilgrimage, they assumed pilgrimage. This reveals the shrine board’s success with respect to the achievement of cleanliness.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Experience Mean</th>
<th>Expectation Mean</th>
<th>Mean Difference</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicular traffic has affected the air quality in Katra</td>
<td>3.973</td>
<td>3.7933</td>
<td>.180</td>
<td>1.66</td>
</tr>
<tr>
<td>Pilgrimage has increased the erosion problem and environmental accidents like land slides</td>
<td>2.986</td>
<td>2.9067</td>
<td>.080</td>
<td>.850</td>
</tr>
<tr>
<td>Tourism has increased the contamination of water bodies such as Banganga</td>
<td>4.600</td>
<td>4.3333</td>
<td>.2667</td>
<td>1.230</td>
</tr>
<tr>
<td>Increased number of pilgrims at the site has increased demand of water resources which has resulted in shortage of these resources</td>
<td>4.000</td>
<td>3.4667</td>
<td>.5333</td>
<td>8.082</td>
</tr>
<tr>
<td>Vegetation on the Trikuta hills has been affected adversely due to the development projects at the destination</td>
<td>2.7933</td>
<td>2.9833</td>
<td>-.020</td>
<td>-.610</td>
</tr>
<tr>
<td>Heavy rush of pilgrims either at Bhawan or Banganga or Adhkuware cause congestion and suffocation</td>
<td>4.7267</td>
<td>3.7267</td>
<td>1.000</td>
<td>3.787</td>
</tr>
<tr>
<td>There are frequent sights of garbage and unhygienic conditions en route the shrine</td>
<td>1.2666</td>
<td>1.6067</td>
<td>-.340</td>
<td>1.620</td>
</tr>
</tbody>
</table>
In Table 2, the mean values of 3.973 and 3.666 of pilgrims and officers respectively as well as the insignificant difference between them clearly show that both officers and pilgrims hold the view that ‘vehicular traffic has affected the air quality in Katra’ to some extent as the values are above 3.5 score in five point likert scale. The statement ‘pilgrimage has increased the erosion problem and environmental accidents like land slides’ has mean values 2.986 for pilgrims and 3.333 for officers. This shows that both pilgrims and the officers are not sure about the statement. The t-value also shows that the difference is insignificant.

The mean values of 4.600 and 4.666 of pilgrims and officers respectively with insignificant difference show that both pilgrims and officers agree with the fact ‘pilgrimage tourism has increased the contamination of water bodies such as Banganga’. Similar to this statement, ‘there exists a insignificant difference between the perceptions of pilgrims and officials about the statement that increased number of pilgrims at the site has increased demand of water resources’; which has resulted in shortage of these resources. The statements ‘vegetation on Trikutta has been affected adversely due to the developmental projects at the destination’ and the statement ‘Heavy rush of pilgrims either at Bhawan or Banganga or Adhkuwari cause congestion and suffocation’ demand serious attention of the shrine board as on these issues pilgrims and officers differ from each other significantly. In case of vegetation on trikuta hills, pilgrims disagree and officials are not sure and in case of congestion and suffocation pilgrims agree while officials are not sure. These findings are important to make recommendation to Environmental Impact Assessment (EIA) and carrying capacity assessment.

The statements ‘pilgrimage has increased the contamination of water bodies such as Banganga’ is the fact pilgrimage tourism has increased the contamination of water bodies such as Banganga. Similar to this statement, ‘there exists a insignificant difference between the perceptions of pilgrims and officials about the statement that increased number of pilgrims at the site has increased demand of water resources’; which has resulted in shortage of these resources. The statements ‘vegetation on Trikutta has been affected adversely due to the developmental projects at the destination’ and the statement ‘Heavy rush of pilgrims either at Bhawan or Banganga or Adhkuwari cause congestion and suffocation’ demand serious attention of the shrine board as on these issues pilgrims and officers differ from each other significantly. In case of vegetation on trikuta hills, pilgrims disagree and officials are not sure and in case of congestion and suffocation pilgrims agree while officials are not sure. These findings are important to make recommendation to Environmental Impact Assessment (EIA) and carrying capacity assessment.

**INITIATIVES OF THE SHRINE BOARD IN RELATION TO ENVIRONMENT CONSERVATION**

Responses of the officers for the subjective questions have revealed about initiatives of the shrine board regarding environment conservation. Responses to the statement ‘importance of environment in relation to the pilgrimage tourism has prompted your organization to declare some areas as protected areas’ reveal the fact that there are such protected areas in the name of vatikas where trespassers are not allowed. There are in total 14 vatikas. However, the area earmarked for these vatikas is not significant.

The responses for the statement ‘your organization carries out environmental impact assessment before setting any project for Shri Mata Vaishno Devi Shrine’...
bring forth the fact through cross check that there is no technical usage of EIA in its real sense. This implies there is no assessment of probable impacts on environment due to the developmental projects before the start of project. Responses also show that there is no ‘life cycle analysis for the destination’ is being carried by the board. On further exploring this issue, all the respondents from board expressed that the destination is shrine of goddess where the visit of pilgrims is out of their faith and the pilgrims’ inflow to the destination shall continue till the faith remains. And as such the board needs not to analyze the life cycle for any objective benefit. The destination, however, is at the growing stage and the board’s focus is mainly on creating facilities to the ever increasing number of the pilgrims. This notion of the board can be confirmed from the revealing fact that the board has created one more man made tunnel, adding to the already existing man made tunnel to increase the capacity of clearing rush at the site of holy cave per day. This further shows that their focus is devoid of sustainable carrying capacity. The study shows adverse impacts on air quality and water bodies. Suffocation and congestion, as revealed by pilgrims, further shows that number of pilgrims at the shrine are beyond the carrying capacity. But unfortunately these adverse impacts have not acted as eye opener to shrine board. Thus, the board has not changed its focus from creation of facilities to sustainable creation of facilities. Their knowledge of adverse impacts have not prompted to think that environmental sustainability should be the core issue and for that an upper limit of the pilgrims which should not deteriorate environment must be determined. At present the board’s focus is on the clearing capacity of the pilgrims i.e. the most possible limit to clear a good number of pilgrims per day.

Despite the economic centric and facilities centric mindset, the shrine board is undertaking a few activities which are good for environment. These include use of renewable sources of energy e.g. solar energy is under consideration. Recycling of waste water and solid waste is also under due consideration. There are already existing 3 sewage plants, one each at Banganga, Adhkuwari and Bhawan. The upgradation of these plants is in pipeline.

In practice, the dominant motive for the development of pilgrimage tourism is economic (improvements in employment and incomes), but the very process of developing pilgrimage tourism will impose costs elsewhere. If governmental and non-governmental organisations are to make sensible and rational decisions with respect to the current and future development of tourism, they must have reliable information on its costs and benefits (Fletcher, 1989). Based on the secondary data, the Cost and Benefit analysis for the Shri Mata Vaishno Devi Shrine is as follows:

Table 3: Benefits and Costs Analysis for Shri Mata Vaishno Devi Shrine

<table>
<thead>
<tr>
<th>BENEFITS</th>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attraction of external/foreign investment for local infrastructure / services</td>
<td>Cost of enforcement/administration</td>
</tr>
<tr>
<td>Diversification of local employment and income</td>
<td>Liability of service providers</td>
</tr>
<tr>
<td>Service sector employment opportunities</td>
<td>Cost of training</td>
</tr>
<tr>
<td>Support employment opportunities: e.g. agriculture, fisheries, handicrafts, cottage industries, etc</td>
<td>Cost of infrastructure development</td>
</tr>
</tbody>
</table>
SUGGESTIONS AND CONCLUSIONS
The results with respect to the environmental statements reveal that environmental features like air quality and water bodies have been affected adversely. In addition to it, heavy rush at the destination causes congestion and suffocation. Pilgrims expressed their view that over-crowd deteriorates their satisfaction in paying obeisance to the goddess inside the cave (the final destination). So these issues need a special consideration from the shrine board as the which is an authority responsible for overall maintenance of the shrine. Cleanliness is the main issue which has been perceived as good by the pilgrims. Thus, cleanliness and hygiene at the destination is the flagship achievements of the board. In case of environmental accidents like landslides, pilgrims do not hold the pilgrimage being the cause behind.

Independent t-test results show existence of insignificant difference of opinion between pilgrims and board except in case of ‘vegetation on the trikuta hills has been affected adversely due to the developmental projects at the destination’ and ‘heavy rush of pilgrims either at Bhawan or Banganga or Adhkuwari cause congestion and suffocation’. Rests of these differences are however expressing the same level of agreement between pilgrims and officers.

Shrine board’s focus on creating facilities should be reoriented. This reorientation should involve giving primary focus to the environmental sustainability. Air quality, water bodies’ contamination, shortage of water resources and overcrowd are the issues affecting the sustainability of the destination. As such the priority needs to shift from facility creation to protection of the vital elements of environment. The environment of the
Shri Mata Vaishno Devi Shrine is being affected and it is being felt by pilgrims as well as the representatives of the board. The board is not having any focus about taking measures that should give priority to the environment. Their top most priority is giving the best facilities to the pilgrims which is evident from their opening one more man-made tunnel to increase their capacity to clear more rush per day. The board needs to change this focus and make the destination environmentally sustainable. For practical diversion of their focus, they need to adopt certain measures like carrying capacity, EIA before the start of the project, environmental education to the staff and creation of protected sites with significant areas.

REFERENCES
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MIGRATION FROM PAPER BASED TO ELECTRONIC PAYMENTS

Himani Sharma* and M.S.Turan**

The growing use of IT in the banking sector has brought in its fold the emergence and adoption of electronic payment instruments acutely affecting paper based transactions. This transition has been especially evident at the point of sale as debit and credit cards have become pervasive. Today, the rapid growth of EFT, ECS, debit and credit cards look to extinct the traditional paper cheques. However, electronic payment technology is still in its adolescence in India; the interplay of many stakeholders in the industry, including technology firms, banks, customers, payment cards and merchants has led to rapid innovation in just a few years. This paper quantifies some of the trends in Indian electronic payments and then compares the same with the changing trend in paper based transactions. The comparison in terms of percentage shares and CAGRs for the period 2003-2009 depicts contrasting results in that the electronic payments registered a rise with associated decline in paper based payments.

INTRODUCTION

The last decade and a half has witnessed a sea change in the style and functioning of banking operations, due, particularly, to the intensive use of information technology. Most of all, customers have benefited, as have the banks themselves. There have been very significant strides in the efficiency of banks leading to greater prospective for higher profitability and ensuing benefit to the economy as a whole. In India, one of the major technological developments in recent years has been the fast-paced transition from physical, paper-based exchange of value to a virtual electronic payment mode. This is also evident from the following table, which records the growth of electronic payments in top 15 countries. It shows that U.S. is leading with Rs.52, 273 million change in transactions but at the same time its compound average growth rate (CAGR) is only 12.4 percent. On the other hand, India's share in change in transactions is Rs. 3,180 million but its CAGR is 26.1 percent which is second only to China (31.6 percent). It concludes from this analysis that growth of electronic payments in India is much better as compared to many other top countries.

Payment systems are the backbone of the financial infrastructure of the nation, boost globalization and act as a tool of economic growth. A retail payment system can be defined as that which “typically handles transactions which are low in value, but very large in number, relating to individuals, firms and corporate”. The process started off in the early 1990s when automation was first applied to paper based clearing activities. Today, there are various payment systems in vogue—ranging from paper-based systems where the instruments are physically exchanged and settlements worked out manually, to the most sophisticated electronic fund transfer system which is fully secure and settles transactions on a gross real time basis. The benefit of electronic payments system is that the transactions can be processed quickly, more cheaply and they also offer a much more expedient method of effecting settlement of transactions. In the past few years, Indian banks and generally the financial service industry, have embraced e-payments in a big way. “Payment Systems in India Vision 2005-08” document released by the Reserve Bank of India in May 2005 acknowledged the importance of establishing a safe and sound efficient payment system for India, matching international standards and best practices. Payments offer banks considerable opportunities to augment transaction volumes and fee income. Board for Regulation and Supervision of Payment and Settlement System (BPSS) was constituted in March 2005, to recommend policies relating to the regulation and supervision of all types of payment and settlement systems and set standards for the existing and future systems. In fact, according to a study by McKinsey, India ranks 4th in the world, in terms of currency in circulation. India's currency in circulation is 11.8 percent of GDP against the Organization for Economic Cooperation and Development (OECD) average of 6.3 percent. Mckinsey estimates that improving the payment systems in India, by fully moving to electronic systems, could result in an annual savings of close to $6.3 billion. Electronic mode of

* Assistant Professor, Department of Business Administration, Chaudhary Devlal University, Sirsa.
** Professor, Haryana School of Business, Guru Jambheshwar University of Science and Technology, Hisar.
payments is increasingly substituting the traditional paper cheques.

Electronic Clearing Service (ECS) and Electronic Funds Transfer (EFT) System introduced by RBI are growing at a very rapid pace. The ECS and EFT systems are now Public Key Infrastructure (PKI) enabled and message transfer takes place in a secure environment. Magnetic Ink Character Recognition (MICR) technology transformed cheque processing systems by enabling the introduction of automated clearing houses. Cheque clearing accounts for over 95 percent of the retail payments and more than 70 percent of cheque clearing is based on MICR technology. ECS facilitated processing of huge volumes of small amount instruments. While Real Time Gross Settlement (RTGS) system is meant for large volume payments, National Electronic Fund Transfer (NEFT) is acknowledged for small payments. Payment systems enhance transparency, by bringing cash into the banking field, which would otherwise have been kept out of the system. While substantial strides have been made in the Systemically Important Payment Systems (SIPS) by the establishment of the Clearing Corporation of India Ltd. (CCIL) and the RTGS system, the retail payment systems are still dominated by paper-based cheque clearing processes. The present paper is an attempt to illustrate the different aspects of retail electronic payments in India and its comparison with paper based transactions. Such study is of great relevance for Indian banking industry and the researchers in the field. The paper consists of four sections. Section-I discusses the review of literature, while Section- II provides different aspects of retail electronic payments. Section-III presents research methodology and Section-IV is devoted to analysis of data. Section-V offers conclusions and suggestions.

### Table 1: Electronic Payments Volume Growth of Top 15 Growing Countries:

<table>
<thead>
<tr>
<th>Top 15 Countries</th>
<th>Change in transactions (millions)</th>
<th>Compound Annual Growth Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 United States</td>
<td>52,273</td>
<td>12.4 percent</td>
</tr>
<tr>
<td>2 China</td>
<td>17,080</td>
<td>31.6 percent</td>
</tr>
<tr>
<td>3 United Kingdom</td>
<td>10,994</td>
<td>9.8 percent</td>
</tr>
<tr>
<td>4 Brazil</td>
<td>9,978</td>
<td>13.9 percent</td>
</tr>
<tr>
<td>5 South Korea</td>
<td>8,317</td>
<td>20.0 percent</td>
</tr>
<tr>
<td>6 Germany</td>
<td>6,433</td>
<td>6.5 percent</td>
</tr>
<tr>
<td>7 France</td>
<td>5,780</td>
<td>8.5 percent</td>
</tr>
<tr>
<td>8 Canada</td>
<td>5,638</td>
<td>10.0 percent</td>
</tr>
<tr>
<td>9 Russia</td>
<td>4,084</td>
<td>18.9 percent</td>
</tr>
<tr>
<td>10 Mexico</td>
<td>3,763</td>
<td>17.1 percent</td>
</tr>
<tr>
<td>11 Australia</td>
<td>3,544</td>
<td>10.4 percent</td>
</tr>
<tr>
<td>12 Spain</td>
<td>3,261</td>
<td>11.4 percent</td>
</tr>
<tr>
<td>13 Poland</td>
<td>3,243</td>
<td>20.3 percent</td>
</tr>
<tr>
<td>14 India</td>
<td>3,180</td>
<td>26.1 percent</td>
</tr>
<tr>
<td>15 Singapore</td>
<td>2,856</td>
<td>17.4 percent</td>
</tr>
<tr>
<td><strong>Total Top 15</strong></td>
<td><strong>1,40,423</strong></td>
<td><strong>13.0 percent</strong></td>
</tr>
<tr>
<td><strong>World</strong></td>
<td><strong>1,74,414</strong></td>
<td><strong>12.9 percent</strong></td>
</tr>
</tbody>
</table>

Source: Global Electronic Payments Market Study and Forecast May 2006
SECTION - I
REVIEW OF LITERATURE

Taking a broad stock of the past, the commencement of the process can be traced to the mid-80s with the introduction of mechanized cheque processing using MICR technology and the efforts towards introduction of network of computers in banks. The Reserve Bank of India, has played a key role in the innovation process of assimilating IT in banking, like, introduction of MICR based cheque clearing, in the form of ECS-Credit and Debit Clearing and EFT, Special Electronic Funds Transfer (SEFT), the introduction of the RTGS System for online settlement of inter-bank funds transfers on a transaction by transaction basis. This has resulted in risk free credit mode of funds settlement.

Empirical studies have also found that mere ownership of payment cards reduces the demand for cash. Duca and Whitesell (1995) combined cross-sectional data on US households and found that credit-card ownership is related to less use of cheques and cash. Blanchflower, Evans and Oswald (1998) also found that credit cards enable an economy to function with a smaller amount of cash.

Aaron L. Phillips, the Treasury Management Association (TMA) (1998) conducted a survey to identify the barriers to, benefits of, and incentives for converting corporate paper cheque payments to electronic forms. The results reveal federal and state mandates (e.g., for tax payments) to be the most common incentives for organizations to adopt electronic payments. The biggest barriers to further expansion are lack of vendor (trading-partner) capability to receive electronic payments accompanied by remittance information, lack of systems integration and costs of additional technology. The most important benefits are lower costs, certainty of payment date and improved cash-flow projections.

Stojanovic (1999) analyzed general public policy issues and opportunities and threats for countries in transition (CIT) in particular, brought about by the electronic money and other electronic retail payments systems developments. It is argued that the new payment instruments and e-money in particular, can contribute to cash substitution and development of more efficient payment and banking systems practice in CIT and arouse competition among financial intermediaries.

Snellman and Vesala (1999) examined the electronification of retail payments in Finland, using S-shaped learning curve to model the process of cash substitution (displacement) and generated forecasts by extrapolating such curves. The data are for the years 1988 to 1996 and the findings suggest that cash displacement was gradually reaching the saturation level and that cash usage was likely to remain at a high level in retail payments. It was forecasted that the cash share of POS payments would stabilise at 65 percent.

Humphrey, Kaloudis and Øwre (2000) suggest that the learning curve provides a useful framework for this type of analysis. According to their calculations, cash accounted for 50 percent of the value of Norwegians’ POS payments in 1999. Their forecasts point to further declines in the ratio: 30 percent in 2005, 18 percent in 2010 and only 10 percent in 2015. In a very recent article, Humphrey et al (2004) revised the forecasts to 38 percent in 2005 and 25 percent in 2010, implying a more gradual decline.

Leinonen (2000) analyzed the current development trends in the payments systems. It emphasizes the need to develop payment standards and the content of payment instructions in order to fully automate the payment process. Payment system development requires cooperation between the banks and other participants to employ the possibilities created by modern technology.

Mantel (2000) investigated the factors that influence consumers’ choice of payment instrument. These preferences differ but generally appear to include combinations of budgeting, convenience, incentives, control, privacy, security, recourse and personal involvement. Consumer’s financial positions, the nature of a particular transaction or merchant relationship and the availability of convenient payment infrastructure also contribute to consumer decisions. The paper asserts that to the degree that electronic payment instruments carry broader features similar to those of cheques and credit cards, consumers will migrate towards electronic payments at increasing rate out of self-interest.

Snellman, Vesala and Humphrey (2001) extended Snellman and Vesala (1999) study to include other European countries in the forecasts to analyse cash payments and used it to estimate currency in circulation, using as independent variables cheque payments, interest rate, and number of terminals for electronic funds transfer at point of sale (EFTPOS terminals). Panel data for ten European countries (1988–1996) were used in the estimation. The findings suggest that cash displacement is similar across the countries studied and that the extent of it depends critically on the extent of payment-card infrastructure. Increasing number of cash dispensers and EFTPOS terminals are found to have negative effects on
currency in circulation.

Spiotto (2001) in a paper on Electronic Bill Payment and Presentment (EBPP) services supported that these are a core component of many financial institutions’ online banking offerings. The paper discusses the laws (state and federal), regulations, and regulatory guidance, generally applicable to EBPP services offered through financial institutions. The paper provides an overview of the law and regulatory guidance as it is today - it does not advocate or recommend any specific changes at this time.

The staff study “The Future of Retail Electronic Payments Systems: Industry Interviews and Analysis”(2002) presents highlights of interviews with representatives of forty-nine organizations and discusses areas in which, the Federal Reserve and other organizations may be able to foster, or help reduce barriers to bring innovation in the payments system. The study presents some key issues—including settlement timing and standards—and accompanying recommendations.

American Bankers Association/Dove Consulting (2005) in their study on Consumer Payment Preferences concludes that although consumer adoption of electronic payments is increasing across the board, the speed of migration to electronic payments is not consistent across payment venues. Although, cash continues to offer unique benefits, it may lose some of its distinctiveness as the array of electronic payment options proliferates.

Harper, Simes and Malam (2005) examined development of Electronic Retail Payments systems in Australia. The study posed two sets of questions. First, what are the forces driving the spread of electronic payments instruments and why has the use of some instruments flourished while that of others struggled? Secondly, are there good public policy reasons for the authorities to interfere in these markets and, if so, how should they do it? It also reviewed some of the recent evidence on the costs and benefits of various payments instruments. Survey evidenced consistently that both cardholders and merchants see real benefits from using electronic means of payment. One observation was that both credit and debit cards provide clear net benefits for higher value transactions but are still dominated by cash for smaller transaction. The paper concluded with some implications for public policy.

RBI in its Payment Systems in India - Vision 2005-08, perspectives encompasses Safety, Security, Soundness and Efficiency (the Triple-S and E) as its vital components. Keeping this in view, for the period 2005-08, the focus will be on the following major themes: a new institutional structure for retail payment systems; national settlement system; sound legal base; continuation of risk mitigation efforts; efficiency enhancements; rural sector facilitation; and customer facilitation and protection.

Global electronic payments market study and forecast (2006) assessed the size of global electronic payments market, by studying transaction volume of 79 countries, to forecast expected volume growth for a period of 5 to 10 years and to identify statistically valid correlations, to create a reusable model and to create a baseline for strategic planning. The sources of data were Bank for International Settlements data, Industry reports, and ACI internal data. Using Econometric Approach the study validated that retail payment and retail transfer transactions are driven by real GDP and trade; wholesale transactions by real GDP and apparent consumption of technology and cheques by consumer spending. The study forecasted that in future electronic payments growth will outpace GDP growth with explosive growth in some markets.

McGrath (2006) in its paper on Micropayments: The Final Frontier for Electronic Consumer Payments analyzed the impact of conventional payment mechanisms in the small payments area, discussed the size of the traditional market for micro payments for POS purchases, and introduced the implications for new markets related to payments for online content. It then identifies some of the reasons that electronification of small payments has lagged and how further progress in this area may benefit consumers and merchants. The paper concludes that, despite some structural limitations, the existing payment card infrastructure and related products are likely to be the primary vehicles for electronifying micro payments in the U.S. in coming years.

Bech and Hobijn (2007) examined the diffusion of the real-time gross settlement (RTGS) technology across the world’s 174 central banks. RTGS reduces settlement risk and facilitates financial innovation in, for example, the settlement of foreign exchange trades. In 1985 only three central banks had implemented RTGS systems; by year-end 2006 that number had increased to ninety-three. The study found that the RTGS diffusion process is consistent with a standard S-shaped curve. Real GDP per capita, the relative price of capital, and trade patterns explained a significant part of the cross-country variation in RTGS adoption. These determinants are remarkably similar to those that seem to drive cross-country adoption patterns of other technologies.

Borzekowski, Elizabeth and Shaista (2008) used
Retail electronic payments comprises of many aspects like EFT, NEFT, ECS (Debit and Credit), Debit cards and Credit cards. These aspects are briefly discussed hereunder:

- Electronic Fund Transfer (EFT): EFT is a scheme introduced by Reserve Bank of India (RBI) to help banks offering their customers money transfer service from account to account of any bank branch to any other bank branch in places where EFT services are offered. The EFT system presently covers all the branches of public sector banks and scheduled commercial banks. Funds transfer is possible from any branch of these banks to other branch of any bank both inter-city and intra-city.

- Electronic Clearing Service (ECS): It is a mode of electronic funds transfer from one bank account to another bank account using the services of a Clearing House. This is normally for bulk transfers from account to many accounts or vice-versa. This can be used both for making payments like distribution of dividend, interest, salary, pension, etc. by institutions or for collection of amounts for purposes such as payments to utility companies like telephone, electricity, or charges such as house tax, water tax, etc. or for loan installments of financial institutions/banks or regular investments of persons. There are two types of ECS called ECS (Credit) and ECS (Debit).

- ECS (Credit): It is used for affording credit to a large number of beneficiaries by raising a single debit to an account, such as dividend, interest or salary payment. This scheme was introduced in Chennai and Mumbai in April 1995.

- ECS (Debit) is used for raising debits to a number of accounts of consumers/ account holders for crediting a particular institution. It was introduced in March 1996 by RBI. The advantages of this system to the ultimate beneficiary are: no frequent visits to his bank for depositing the physical paper instruments, no apprehension about loss of instrument and speedy realization of proceeds after receipt of paper instrument. The bank also enjoys benefits of the above system like free from paper handling so less pressure. In ECS, banks simply get the payment particulars relating to their customers.

- Debit card/Credit card: Debit card unlike Credit, which is a post-paid card, is prepaid card with some stored value. Every time a person uses the card, the merchant who in turn can get the money transferred to his account from the band of the buyer, debits the exact amount of purchase from the card. A Credit card is a type of retail transaction settlement and credit system, issued to users of the system. In the case of credit cards,
the issuer lends money to the consumer and it allows the consumer to ‘revolve’ their balance, at the cost of having interest charged. Consumer studies have shown that spending is much higher with debit cards than with credit cards.

- Clearing Corporation of India (CCIL): It was set up in April, 2001 for providing exclusive clearing and settlement for transactions in Money, GSecs and Foreign Exchange. The organization is a clearing house for bonds issued by Central Government of India as well as State Government and Inter-Bank Foreign Exchange Trades. It also provides a platform for trading in foreign currencies to market players of India. Trading of bonds is also allowed online by special software developed by CCIL. The prime objective has been to improve efficiency in the transaction settlement process, insulate the financial system from shocks emanating from operations related issues, and to undertake other related activities that would help to broaden and deepen the money, debt and forex markets in the country.

SECTION – III
RESEARCH METHODOLOGY
Good methodology follows the standards of the well-known principles. For the present paper, a number of requisite points of the research methodology are:

- Objectives of the Study: The main objective of the paper is to examine the growth of electronic payments and making its comparison with the growth of paper based payments. Results of this analysis will be helpful in implementing new technology in Indian banks.

- Nature and Sources of Data: The present paper is based on the use of secondary data collected from largely www.rbi.org.in, www.google.com, www.ssrn.com. The journals like Journal of Banking Studies, Professional Banker and The Management Accountant have also been referred to obtain the relevant information.

- Tools Used: The statistical tools used in the study are CAGR and Growth Rate.

SECTION - IV
RESULTS AND DISCUSSIONS
Table I exhibits that convenience and easy acceptability of debit cards, credit cards and technological advances have resulted in a continuous rise in electronic mode of payments. During 2008-09, share of retail electronic payments have reached to 81.8 percent from mere 29.7 percent in 2003-04. Conversely, share of paper based payments is depicting a decreasing trend from 70.3 percent in 2003-04 to 18.2 percent in 2008-09.

### Table 1: Paper Based, Retail Electronic and Card Based Payments

<table>
<thead>
<tr>
<th>Years</th>
<th>Paper Based</th>
<th>Electronic*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>115,95,960</td>
<td>48,90,962</td>
<td>164,86,922</td>
</tr>
<tr>
<td>(70.33)</td>
<td>(29.67)</td>
<td>(100)</td>
<td></td>
</tr>
<tr>
<td>2004-05</td>
<td>1,04,58,895</td>
<td>1,09,09,497</td>
<td>2,13,68,392</td>
</tr>
<tr>
<td>(48.94)</td>
<td>(51.06)</td>
<td>(100)</td>
<td></td>
</tr>
<tr>
<td>2005-06</td>
<td>1,15,29,154</td>
<td>1,94,86,152</td>
<td>3,08,15,286</td>
</tr>
<tr>
<td>(36.77)</td>
<td>(63.23)</td>
<td>(100)</td>
<td></td>
</tr>
<tr>
<td>2006-07</td>
<td>1,20,42,426</td>
<td>3,03,17,963</td>
<td>4,23,60,389</td>
</tr>
<tr>
<td>(28.43)</td>
<td>(71.57)</td>
<td>(100)</td>
<td></td>
</tr>
<tr>
<td>2007-08</td>
<td>1,33,96,066</td>
<td>4,66,89,754</td>
<td>6,00,85,820</td>
</tr>
<tr>
<td>(22.30)</td>
<td>(77.70)</td>
<td>(100)</td>
<td></td>
</tr>
<tr>
<td>2008-09</td>
<td>1,24,61,202</td>
<td>5,39,72,211</td>
<td>6,84,33,413</td>
</tr>
<tr>
<td>(18.20)</td>
<td>(81.80)</td>
<td>(100)</td>
<td></td>
</tr>
</tbody>
</table>

*Includes ECS (Debit and credit), EFT RTGS, Cards, CCIL.
Figures in parentheses are percentages
Growth rates of paper based and electronic payments are exhibited in Table 2. It is evident from the table that paper based payments reflect a negative growth (-9.81 percent) from the year 2003 to 2005, but in 2007-08, there is slight increase in the same (11.24 percent). Conversely, percentage growth in electronic payments have registered a positive trend at declining rate over the years resulting in 123.05 percent in 2005 to 54.00 percent in 2008. Though, growth in electronic payments has shown a declining trend, yet the same is positive, highlighting a decline in paper based transactions. Even in the terminal year of the reference period when paper based transactions registered a negative growth rate of -6.98 percent, the growth rates of electronic payments were far ahead at 19.88 percent.

Table 2: Growth Rate of Paper Based Versus Electronic Clearing
(Value in Rs. Crores)

<table>
<thead>
<tr>
<th>Years</th>
<th>Paper Based</th>
<th>Growth percent</th>
<th>Electronic</th>
<th>Growth percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>1,15,95,960</td>
<td>-9.81</td>
<td>48,90,962</td>
<td></td>
</tr>
<tr>
<td>2004-05</td>
<td>1,04,58,895</td>
<td>8.32</td>
<td>1,09,09,497</td>
<td>123.05</td>
</tr>
<tr>
<td>2005-06</td>
<td>1,13,29,134</td>
<td>6.3</td>
<td>1,94,86,152</td>
<td>78.62</td>
</tr>
<tr>
<td>2006-07</td>
<td>1,20,42,426</td>
<td>11.24</td>
<td>3,03,17,963</td>
<td>55.59</td>
</tr>
<tr>
<td>2007-08</td>
<td>1,33,96,066</td>
<td>-6.98</td>
<td>4,66,89,754</td>
<td>54.00</td>
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<tr>
<td>2008-09</td>
<td>1,24,61,202</td>
<td>-9.81</td>
<td>5,59,72,211</td>
<td>19.88</td>
</tr>
</tbody>
</table>

Source: RBI, Report on Trend and Progress of Banking in India, 2008-09
* includes ECS (Debit and credit), EFT RTGS, Cards, CCIL.

The above pattern is further confirmed by the figures of compound annual growth rates (CAGR) computed for various years in Table 3. From 2003 to 2009 CAGR of paper based transactions is only 3.38 percent while electronic transactions reveal CAGR of 62.49 percent during the same period. From the foregoing analysis, we can conclude that growth performance of electronic transactions is much better as compared to paper based transactions.

Table 3: CAGR (%)

<table>
<thead>
<tr>
<th>Years</th>
<th>Paper based</th>
<th>Electronic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-09</td>
<td>3.38</td>
<td>62.49</td>
</tr>
</tbody>
</table>

Source: RBI, Report on Trend and Progress of Banking in India, 2008-09
* includes ECS (Debit and credit), EFT RTGS, Cards, CCIL.

SECTION – V
CONCLUSION AND SUGGESTIONS
Analysis made with the help of growth rates highlights some concrete results regarding growth of electronic payments. It has been seen that usage of electronic payments has been showing increasing trends which are encouraging. Since 2003, this study has predicted the shift in consumer payment behavior across multiple payment avenues. In 2003-04, paper-based payments represented 70.33 percent of consumers’ payments and by 2004-05, that share decreased to 48.94 percent—a major milestone for retail electronic payments, which shares 51.06 percent during 2004-05, from 29.67 percent in 2003-04. Between 2005 and 2009, the shift toward electronic payments continued, with paper payments decreasing. Increasing use of modern payment systems have far reaching economic and social connotation for India where significant population have so far been excluded from the benefits of new technology. Use of electronic payments in the banking industry brings transparency, lowers transaction costs, improves operational effectiveness and enhances globalization of economy. Migration of paper based funds movement to electronic modes for the benefit of the people is a challenging task and may not be achieved overnight. Ample progress can be, however, made by means of a system of incentives.

For the development of electronic payment systems, government should work strongly in collaboration with private sector for policy development and make...
sure that governmental activities accommodate the
requirements of the banking industry. The study may
be used as a ready reference for future researches
on the area under discussion. Further, for the policy
makers of the Indian Banking Industry, the study may
prove to be useful for drawing their attention on the
importance of electronic payments system, keeping in
view the results and discussions made herein.

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AN EMPIRICAL STUDY ON FACTORS AFFECTING CONSUMER PREFERENCES OF SHOPPING AT ORGANISED RETAIL STORES IN PUNJAB

K C Mittal*, Mahesh Arora** and Ms Anupama Prashar***

The share of organised retail in total retail market in India is growing. Many domestic and global players have already entered in this sector. Due to intense competition in this field, it is important to focus on retaining existing consumers. Working out strategies in this direction requires a thorough understanding of the preferences of the consumers on the attributes that are considered of much significance. The present paper attempts to analyze the consumers’ preferences of the specific attributes of retail stores in the selected five cities of Punjab. Factor analysis has been used in identifying the main factors. The factors identified include: availability and variety, ambience, service, price, advertisement, prestige, and quality.

INTRODUCTION

The present paper is devoted to examine the factors affecting consumer preferences of shopping at organized retail stores in Punjab. Before taking up the analysis, it presents an overview of retailing in general and India in particular. According to Philip Kotler, ‘Retailing includes all the activities involved in selling goods or services to the final consumers for personal, non-business use. Any organisation selling to final consumers whether it is a manufacturer, wholesaler or retailer – is doing retailing. It does not matter how the goods or services are sold (by person, mail, telephone, vending machine or internet) or where they are sold (in a store, on the street or in the consumer’s home).

Retailing is set of business activities that add value to the products and services sold to consumers for their personal and family use. These value-added activities include providing assortments, breaking bulk, holding inventory, and providing services. As such retailing is the last link that connects the individual consumer with the manufacturing and distribution chain. Retailing, thus, may be understood as the final step in the distribution of merchandise, for consumption by end consumers. In the complex world of trade today, retail would include not only goods but also services that may be provided to the end consumer. In the age where consumer is the king and marketers are focusing on customer delight, retail may be redefined in the first point of customer contact.

For the purpose of research the organised and unorganised sectors of retail has been defined. According to the National Accounts Statistics of India the ‘unorganized sector’ include units whose activity is not regulated by any statue or legal provision, and/or those which do not maintain regular accounts (2006). In the context of the retail sector, it could therefore be said to cover those forms of trade which sell an assortment of products and services ranging from fruits and vegetables to shoe repair. These products or services may be sold or offered out of fixed or mobile location and the number of people employed could range between 10-20 people. Thus the neighbourhood kiriana, the paanwala, the cobbler, the vegetable, fruit vendor, etc. would be termed as the unorganized sector. The primary purpose in defining the scope of the unorganized sector is to understand the formats or the forms of trade that would be understood as unorganized and therefore, to further the understanding of the term organized.

Organized retail can be defined as any organized form of retail or wholesale activity (both food and non-food under multiple formats), which is typically a multi-outlet chain of stores or distribution centres run by professional management.

The retail sector in India is highly fragmented and mostly owner-run “Mom and Pop” outlets. The entire sector is dominated by small retailers consisting of local Kiryana shops, general stores, footwear and apparel shops, hand-cart hawkers and pavement vendors. These together form the “unorganised retail” or “traditional retail”. According to the Investment Commission of India (ICI) estimates, there are over...
In the midst of the unorganised retail sector’s strong dominance, some of the major industrial houses have entered into this sector and have announced ambitious future expansion plans. Transnational corporations have also joined hands with big Indian companies to set up retail chains. India’s Bharti group joined hands with Wal-Mart, the world’s largest retailer and Tata group tied up with the UK based Tesco, the world’s third largest retail group.

This present study focuses on analyzing the consumer’s preferences of the specific attributes of retail store in various cities of Punjab.

REVIEW OF LITERATURE

Several attributes have been identified in the retail and marketing literature as reasons for store patronage and choice. Some of the studies are listed below

- Martineau (1958) categorized store attributes into two main categories: functional and psychological. The functional category includes attributes such as location, assortment of products and store layout. The psychological category represents the feelings generated by the functional elements of the store. The former category has gained more attention in the subsequent research into store choice than the latter.

- Fisk (1961) identified six attributes as the most important: location accessibility, merchandise suitability, value for price, sales efforts and store service.

- In their study of department stores in Arizona, Kunkel and Berry (1968) proposed a twelve-factor scheme which includes price of merchandise, quality, assortment, fashion of merchandises, sales personnel, sales promotion, advertising, store atmosphere, locational accessibility, service, reputation on adjustments and other accessibility factors. In a subsequent study, Berry (1969) identified three general factors that predominantly influenced consumer’s store choice regardless
of store type: namely, quality and variety of merchandise, sales staff, and store atmosphere.

- A prominent and widely-cited work on the topic of store image was that of Lindquist (1974). Based on a review of 19 research articles, he synthesized the framework of these studies into a set of nine groups: merchandise, service, clientele, physical facilities, promotion, accessibility, store atmosphere, institutional and post-transaction satisfaction.

- Doyle & Fenwick (1975), propose that price, product variety, one-stop shopping, quality, location of the store, advertisement, general appearance of the store and convenience are some of major attributes looked upon by the consumers while evaluating a grocery store.

- Bearden (1977) distinguished seven attributes as potentially significant for store patronage: price, quality of merchandise, assortment, atmosphere, location, parking facilities and friendly staff.

- Arnold et al. (1983) extended the accessibility attribute to the ease of mobility through the store and fast checkout

- Mason, Mayer, & Ezell, 1994 proposed that Reasonable prices in a retail store induce customer satisfaction as well as building customer loyalty. In the retailing sector, the store having reasonable prices will often capture a large market share

- Hasty and Reardon (1997) classified store attributes into three general categories: accessibility (e.g., location, layout, appearance, and knowledgeable staff), facilitation of sales (e.g., low-priced specials, promotional offers and methods of payments accepted) and auxiliary attributes (e.g., play areas for children and food court).

- Wong & Sohal, (2003) compared the relationship between dimensions of service quality and customer loyalty in a retail chain departmental store located in a city to that of a country. The results showed that service quality is positively associated with customer loyalty, and that the most significant predictor of customer loyalty in the city retail district is empathy, while the most significant predictor of customer loyalty in the country retail district is tangibles.

- Solgaard and Hansen (2003) identified several store attributes that were considered important for the consumer’s evaluation of stores. These attributes include merchandise, assortment, merchandise quality, personnel, store layout, accessibility, cleanliness and atmosphere.

- Spiller Bolten and Kennerknecht (2006) identify service and product quality as main determinants of customer satisfaction. They propose that customers consider freshness of fruits and vegetables’ as the quality of whole assortment.

OBJECTIVES AND RESEARCH METHODOLOGY

The aim of the study is to identify the factors affecting consumer preference related to shopping at organised retail store.

The data has been collected with the help of questionnaire (29 close ended question) from five urban cities of Punjab i.e. Amritsar, Patiala, Mohali, Jalandhar and Ludhiana. These cities were selected due to high growth of organised retail in these cities. The survey was conducted at selected organized retail stores in these selected cities. The target population of the study included customers who prefer to shop at organised retail stores in Punjab. A sampling frame from which a random sample could be drawn was unavailable. However, an accidental sampling method was chosen to serve the purpose of data collection. This method seemed acceptable and appropriate taken into account the exploratory nature of the study and the lack of a sampling frame. 50 organized retail stores were selected in five selected cities for data collection. 100 consumers were interviewed from sampled organized outlet adopting the Systematic random sampling procedure in each selected urban city of Punjab. Over 500 consumers were interviewed at the selected stores in 5 selected cities. Of the 500 questionnaires distributed, 25 were excluded for reasons of inconsistencies in responses and incompleteness of answers. The 475 usable questionnaires were analyzed using SPSS software version 14.0. Frequencies were used to generate a profile of the key demographic characteristics of the respondents. Descriptive statistics were utilized to calculate the mean and standard error scores. An exploratory factor analysis was used to uncover the underlying factors which affect consumer preference.

RESULTS AND ANALYSIS

Demographics Characteristics

The number of male respondents in the survey were 52% and 48% were female respondents. Most of the respondents visiting an organized retail outlet were graduates and had educational qualifications above it. 36 Percent of the respondents were post-graduates, 23 percent had professional degree and 34 percent were graduates and the remaining 7 per
cent were undergraduates. Most of the respondents were self-employed/unemployed or belong to other professions (36%); whereas, the other respondents were from varied professions such as civil services (14.7%), educational (15.5%), medical (23.8%), financial services (10%). What can be seen from this is that most respondents belong to tertiary sector and very few to manufacturing sectors. As reflected in our survey most respondents have income between 3 and 8 laks (56%) and the remaining 44% were having income more than 8 laks. This indicates that the respondents are mostly of the higher middle income group or Middle income group and from the service class. There are 183(38.5%) of the respondents in the age group of 18-25, 100 (21%) respondents in the age group of 26-35. Remaining 192 respondents (40.5%) were above 36 of age. This indicates that most of the respondents were youth.

Factor Analysis
As the first step, the suitability of the data collected for using factor analysis was thoroughly checked. The sample is greater than 100 as mentioned above. The proportion of the respondents and the variables used in is more than 5:1 (475 respondents and 22 variables), then the correlations matrix was checked, there were enough high correlations to proceed with factor analysis.

Prior to running the factor analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett’s test of sphericity were performed. The generated score of KMO was .77, reasonably supporting the appropriateness of using factor analysis to explore the underlying structure of supermarket image. The Bartlett’s test of sphericity was highly significant (p< .000), rejecting the null hypothesis that the 22 important attributes are uncorrelated in the population. Using principal components with varimax rotation, only attributes with factor loadings of .5 or greater on a factor were regarded as significant. The factor analysis generated four factors explaining 63.7% of the variability in the original data. The Cronbach’s alphas, which measure the internal consistency of each of the identified factors, fell within an acceptable range.

The communalities and other are presented in Tables 3-6 (Appendix). Communalities represent the proportion of the variance in the original variables that is accounted for by the factor solution. The factor solution should explain at least half of each original variable’s variance, so the communality value for each variable should be 0.50 or higher. As can be seen from the table all the variables used have a communality higher than 0.50. Table 3 shows the communalities.

The most significant factor that determines the retail outlet preference is the shopping availability and variety of products. This is the most important factor looked at by the consumers according to the results of factor analysis. The consumers prefer that retail store should have large variety of brands for grocery items. Availability of items even in late hours is also important consideration. The second factor can be called the “services”. The consumers prefer stores that offers free home delivery. They prefer stores with many sales executives to help. Other factors like sufficient parking space, availability of baskets and trolleys and fact check out are equally important for consumers. The third most important factor is “ambience” of store. Consumers prefer shopping at stores which are not over crowded and where products are easy to locate. They prefer stores which are clean with attractive displays and sufficient lighting. The fourth most important factor is the “discounts” and “fair prices”. People do look into savings on their total billing at the end of shopping. The consumers would like to be informed in advance about the discounts and special offers so that they can get the best buy. The fifth factor is “quality of food” and “grocery items”. They prefer stores which stock fresh and good quality items. The sixth factor which is important for consumers is “promotion of stores”. Consumer prefers stores recommended by their friends and relatives. They like to visit stores which advertise (newspaper, television, radio) regularly.

CONCLUSION

- The study focused on finding out the major attributes of the retail stores as perceived by the consumers in Punjab. The methodology adopted was a structured questionnaire and the analysis was done using “principal component method”.
- The study shows that there are six major factors that consumers prefer as far as the retail stores are concerned. These factors include availability & variety, service, ambience, discounts & price, quality of products, and promotion.
- The knowledge of these factors is very useful to retailers and the strategists to plan the policy and formulate strategies accordingly for customer retention and improving loyalty towards their store. The changing consumer need can be understood and plans be accordingly implemented.
- The consumers are more inclined to get an experience of their shopping. Purchasing
what they require is the drive for coming to retail store, but in the process they want a wonderful overall shopping experience. This may be mainly to relieve them from the day-to-day stressful life. The consumers do not want the shopping also to be another pain. The shopping place should be convenient, a place where they can relax, and also can lay their hands on whatever they wanted. These retail outlets should focus on improving their service focusing on improving the convenience of the consumers. They should try to attract new consumers and also retain the existing ones by adopting promotional offers, adding value to their shopping experience and overcoming their shortcoming on these attributes.

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**APPENDIX**

Table 3: Communalities Table

<table>
<thead>
<tr>
<th>Variable (V)</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>V1</td>
<td>0.503</td>
</tr>
<tr>
<td>V2</td>
<td>0.585</td>
</tr>
<tr>
<td>V3</td>
<td>0.573</td>
</tr>
<tr>
<td>V4</td>
<td>0.505</td>
</tr>
<tr>
<td>V5</td>
<td>0.734</td>
</tr>
<tr>
<td>V6</td>
<td>0.549</td>
</tr>
<tr>
<td>V7</td>
<td>0.582</td>
</tr>
<tr>
<td>V8</td>
<td>0.518</td>
</tr>
<tr>
<td>V9</td>
<td>0.529</td>
</tr>
<tr>
<td>V10</td>
<td>0.594</td>
</tr>
<tr>
<td>V11</td>
<td>0.603</td>
</tr>
<tr>
<td>V12</td>
<td>0.584</td>
</tr>
<tr>
<td>V13</td>
<td>0.571</td>
</tr>
<tr>
<td>V14</td>
<td>0.683</td>
</tr>
<tr>
<td>V15</td>
<td>0.624</td>
</tr>
<tr>
<td>V16</td>
<td>0.665</td>
</tr>
<tr>
<td>V17</td>
<td>0.587</td>
</tr>
<tr>
<td>V18</td>
<td>0.565</td>
</tr>
<tr>
<td>V19</td>
<td>0.581</td>
</tr>
<tr>
<td>V20</td>
<td>0.662</td>
</tr>
<tr>
<td>V21</td>
<td>0.609</td>
</tr>
<tr>
<td>V22</td>
<td>0.646</td>
</tr>
</tbody>
</table>

Extraction method: Principle Component Analysis
Table 4: Extacted Factors

Table 4 above gives the 6 extracted factors that explain 56 percent of the total variations.
Table 5: Rotated Matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products are never out of stock</td>
<td>0.688</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variety of grocery items</td>
<td>0.606</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Many brands are available</td>
<td>0.693</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Store offers a maximum choice</td>
<td>0.529</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Everything you need under one roof</td>
<td>0.536</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not over crowded</td>
<td></td>
<td>0.586</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good layout</td>
<td></td>
<td>0.654</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display is attractive</td>
<td></td>
<td>0.577</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean and free from clutter</td>
<td></td>
<td>0.643</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good music and soothing colours</td>
<td></td>
<td>0.559</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertised regularly</td>
<td></td>
<td>0.560</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommended by friends</td>
<td></td>
<td>0.663</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home delivery</td>
<td></td>
<td></td>
<td>0.552</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Many sale people</td>
<td></td>
<td></td>
<td>0.673</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comfortable air conditioned environment</td>
<td></td>
<td></td>
<td>0.764</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return or replacement policy</td>
<td></td>
<td></td>
<td>0.779</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trolleys and baskets are available</td>
<td></td>
<td></td>
<td>0.594</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Many billing counters for a faster check out</td>
<td></td>
<td></td>
<td></td>
<td>0.566</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitive price</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.654</td>
<td></td>
</tr>
<tr>
<td>Discounts</td>
<td></td>
<td></td>
<td></td>
<td>0.580</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock good quality items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.848</td>
<td></td>
</tr>
<tr>
<td>Fresh groceries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.665</td>
</tr>
</tbody>
</table>
Table 6: Factors Extracted From Factor Analysis

<table>
<thead>
<tr>
<th>Factor description</th>
<th>Variables included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability and variety</td>
<td>products are never out of stock, variety of grocery items are available, many brands are available, everything you need under one roof</td>
</tr>
<tr>
<td>Service</td>
<td>home delivery, many salespeople, comfortable air conditioned environment, return or replacement policy, trolleys and baskets are available, many billing counters for a faster checkout</td>
</tr>
<tr>
<td>Ambience</td>
<td>Not over crowded, Good layout, displays are attractive, clean and free from clutter, good music and soothing colours</td>
</tr>
<tr>
<td>Discounts and price</td>
<td>Discount offers, competitive pricing</td>
</tr>
<tr>
<td>Quality of items</td>
<td>Freshness, good quality</td>
</tr>
<tr>
<td>Promotion</td>
<td>Advertisement, recommendation</td>
</tr>
</tbody>
</table>
GENDER EQUALITY AND DEVELOPMENT UNDER ECONOMIC REFORMS: A CASE OF TEXTILE INDUSTRY

Santosh Nandal*

This paper based on the issue of ‘gender equality and development’ deals with the position of women in pre and post-reform periods. Gender equality gives women and men the same entitlements to all aspects of human development including economic, social, cultural, civil and political rights, the same opportunities to make choices; and same level of power to shape the outcome of these choices. Since the mid-1970s the main symptoms of macro-economic instability have been inflation and balance-of-payment difficulties in a context of economic recession, and unemployment. How do they relate to women both as members of the labor force and in their reproductive and household functions in a complex process? India’s liberalization began in 1991 and has registered tremendous economical push with 8 per cent growth in GDP, increase in per capita income of approximately 5 per cent (CIA World Face Book, 2003). The growth in Indian economy has created opportunities for people but women are worse affected in new economy. Indian industries have started to use cost cutting method in the name of competition. Indian textile industry is second largest employer after agriculture and since economics reform many women workers in textile industry have lost their jobs (IDR, 2008).

INTRODUCTION

Gender equality gives women and men the same entitlements to all aspects of human development including economic, social, cultural, civil and political rights, the same level of respect, the same opportunities to make choices; and the same level of power to shape the outcome of these choices. Equality and development has been the slogan for advancing the status of women throughout the world for the last many years. In Mexico city, in 1975 at the world conference of the International women’s year, the UN decade for women equality and development was proclaimed. An action plan was adopted at the time, which was followed by the Program of Action at the Mid-Decade Conference held in 1980 in Copenhagen. 1990 was observed as the ‘Year of Girl Child’ while the year 2001 has been declared as ‘Women Empowerment Year’ and Year 2008 was celebrated as the year of women empowerment.

An earlier version of this paper was accepted for presentation for the International Association for Feminist Economics Conference, that was held during July 22 – 24, 2010 in Argentina.

REVIEW OF LITERATURE

Early 1970s marked the beginning of the consciousness about the women’s right in India, that challenged our so-called gender neutrality process of development. Only a few economists like Gadgil (1965) and Boserup (1970) noted women’s role in economic development. And a plethora of studies have appeared especially in the 1980s (Suchitra Anant, 1986). But the poor and unorganized segments of the wage-earners in India did not receive much attention (Towards Equality, 1974, SEWA, 1988). Women in most cases were hired for low but engaged in a high wage function as most of the functions of women workers are interchangeable. If the wage rates are equal in both the work, they do not object. The common view is that females are being discriminated in the labor market leading to discrimination and marginalization (Varghese, 1991). The “superwoman syndrome” has led many women to over-extend themselves in trying to do it all - a successful career, marital harmony, well-adjusted children, caring for elderly parents, an active social life and participation in community service. Women’s increasing participation in income generating activities and wage employment does not exempt them from household work (Khan, 1999).

Increase global economic integration, the adoption of market-oriented reforms, and a circumscribed role for the state in managing economies over the last decades has caused income and wealth inequality to expand both within and between countries (Branko Milanovic 2005; International Labor Organization [ILO] 2008). The mainstream perspective emphasizes equality of opportunity, in sense of formal, legal equality but is reluctant to promote equality of economic based on the argument that it would undermine efficiency. As Elson’s 2009 textual analysis of WDR 2006 indicates, the mainstream perspective argues that that promoting

* Professor, Department of Economics, Maharshi Dayanand University, Rohtak.
equality of opportunities can achieve economic efficiency (or “prosperity”, as it is put throughout WDR 2006). The WDR 2006 gives scant attention to both labor market inequality and women's burden of unpaid labor. Consistent with the mainstream perspective, however, WDR 2006 views removing legal barriers to women's participation in labor markets and access to land right as sufficient for achieving gender equity.

OBJECTIVES AND BACKGROUND OF THE STUDY
The purpose of this paper is two fold: first to explain the position of women since independence and assess the impact of economic reforms on women in Indian society; and second, to suggest alternative economic policies/opportunities to assist women who are in crisis. Specially, the study aimed to exercise in integrating gender analysis and economic policy, focusing on the specific aspects of gender disparities and trade liberalization in India. Let us draw hurriedly the comparison and parallels between these two periods.

(i) Pre- Reforms Period
In India real picture is different. Since the mid - 1970's the main symptoms of macro-economic instability have been inflation and balance-of-payment difficulties in a context of economic recession, and unemployment. How do they relate to women both as members of the labor force and in their reproductive and household functions in a complex process? In general, commerce and services have always been important employers of the female labor, both in industrialized countries and less developed countries. It is known that these sectors show greater flexibility in terms of working hours in which part time labor does not become an obstacle to work in organization and is therefore compatible with domestic duties and household work women have to perform. Because domestic duties like catering, cleaning, care of children and aged people etc. is a segment of the market which is traditionally composed by women.

The committee on status of women in India in 1971 submitted its report “Towards Equality” which pointed out that the dynamics of social change and development had affected the majority of women adversely, and had created new imbalances and diversities. The development programs have reduced the capacity of developing countries to provide food, health, education, housing and employment specially to those in need of them. As a result, women have doubly been affected as workers, a household keeper and as mothers. Technological change in agriculture sector was also loaded against women. The Seventh Five Year Plan noticed that Green Revolution in India went against the occupation of rural women.

Modern occupations are not open to women due to lack of necessary training and skills. Mechanization of many jobs led to the benefit of male workers but not to women; even men replaced women in some areas where mechanization was introduced. In India, informal or unorganized sector is women's sector to provide employment to them. Around 94 per cent workforce including agriculture is in the unorganized sector where only six per cent is in the organized sector (Government of India 1988a). Thus, there is no exaggeration in saying that the unorganized sector in India is the women's sector. Women do more work than men do, yet they have only limited access to economic resources and benefits made more clearly appropriated by men. The point is made more clear in the United Nations Report 1991 in it following observations: “Women constitute half of the world's population, perform nearly two-third of its work hours, receive one-tenth of world income and own less than one hundredth of world's property”. Such is the scale of ‘gender gaps’ in the distribution of work, resources and benefits.

(ii) Post Reform Period (New Economy)
India's liberalization began in 1991 and has registered tremendous economic growth with 8 per cent in GDP, increased per capita income of approximately 5 per cent (CIA World Face Book, 2003). The growth in Indian economy has created opportunities for people but women are worse affected in new economy growth. Indian industries have started to use the cost cutting method in the name of competition. Women have traditionally taken on more manual, engaged in low paid jobs, their positions are jeopardized with the introduction of mechanization and technology. After trade liberalization, India has opened the doors for foreign investment and the structure of traditional industry has changed toward lower cost method to remain competitive. This competition has effected the women adversely.

A CASE OF TEXTILE INDUSTRY
Indian textile industry is the second largest employer after agriculture, with more than 35 million persons engaged in it. It contributes 5 per cent of GDP, 30 per cent to the total exports, and 20 per cent to the industrial production of India (IDR, 2008). This industry is major contributor to exports in which majority of women workers are engaged and after economic reform many women workers in textile industry have lost their jobs or they are engaged in low paid jobs to maintain efficiency. During the past decade, the
textile industry has been facing recession. Numerous organized textile mills have been closed and declared sick, while many of them are being operated, despite losses, owing to the fact that in these many employees are involved. However, the unorganized sector is progressing well because of cost cutting efficiency. This cost cutting efficiency is maintained through low wage and part time jobs in informal sector. As per National Sample Survey Organization (1994), of the total number of women workers in India, around 92 per cent workforce is in the unorganized sector, whereas merely 8 per cent are in the organized sector. This sector while extracting the maximum contribution from them has given very little in return. Women work for extremely low wages, long working hours, unsatisfactory working conditions with a total lack of job security benefit; above all they are not protected by any government labor legislation. However the whole country is gaining in export and growing economically, it is uncertain how much the women workers' situation within these industries has improved.

A wide range of regulations in the textile industry involving bureaucratic difficulties in the expansion of industry and a highly distortionary tariff structure were partly responsible for this steady recession. For example, the reservation of garment sector for Small Scale Industries (SSI) had restricted large scale investment in this sector, which led to huge losses in efficiency that could have otherwise been achieved through economies of scale. The clause ‘labor standards’ under WTO has restricted the export in this industry. The study conducted in Bangladesh strengthens this view. The restriction on spinners to allocate their fixed part of their production to handloom weavers which was 50 per cent of total marketable yarn in 1974, 40 per cent in 1986 and 20 per cent in 2003 and this restricted the profit of spinners. In addition to domestic regulations, the industry has also faced import restrictions from developed countries. The share of textile in exports in the total exports from India has fallen over the years, despite the phasing out of MFS quota. Therefore, after economic reforms, the condition of textile sector has not improved rather it has worsened.

CONCLUSION

In India, women are central to the growth and economic recovery of the country. However, not enough information is available about the dynamics and factors that shape the lives of women and men in India. Indian studies have not paid adequate attention to policy studies relevant to improve the economic capacity of women (and men). The field of gender studies has also shifted away from studying “women”to understanding how both men and women are affected by and contribute to the development process.

The perspective of women's development in India has passed through three phases “Women and Development” (WAD), “Women in Development” (WID) and “Gender and Development” (GAD). The first is concerned with women as a part of development; the second has been concerned with the question of neglect and marginalization of women in development endeavor, while the third has pleaded for gender planning in development. Gender equality and women's development are human rights that lie at the heart of development and the achievement of the Millennium Development Goals. Despite the progress that has been made, six out of ten of world's poorest people are still women and girls, less than 16 percent of the world's parliamentarians are women, two-thirds of all children shut outside the school gates are girls and, both in times of armed conflict and behind closed doors at home, women are still systematically subjected to violence. Development can not be achieved if 50 per cent of population is excluded from the opportunities it brings. The situation requires a radical reorientation of planning process so as to make it truly sensitive. Some counter balancing policies would include:

- To increase expenditure on women's formal education, professional education and on the job-training, extension services, health services etc.
- To release the women from heavy burden of household by providing necessary service to share the responsibilities for raising and caring of children and household tasks so that they can join labor force on equal terms with men.
- To increase subsidies and grants to industries who are willing to employ women particularly those industries in which women have had no access or low access until now. It will help to eliminate the sex biased labor force structure.
- To create awareness among women and also mobilizing them to fight for their rights. The state governments may play an active and positive role to organize poor women and weaker section of society by providing incentives and concessions to them on sustainable basis. That will be the only solution for lasting change.

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AGRICULTURAL INSURANCE IN INDIA: 
A MICRO STUDY 

A. Selvaraj*

Agriculture in India, as anywhere in the world, is subject to vagaries of nature. Agricultural insurance is one mean to protect the farmers against risk due to calamity. Agricultural insurance besides has several advantages. An attempt has been made in this paper to evaluate the factors influencing the farmers to insure their crops and other allied agricultural activities under different schemes. The study is based on a sample survey of 120 respondents of Erode district in Tamil Nadu. Garrett ranking analysis, with the help of scale and score values, has been employed to draw results and conclusions.

1. INTRODUCTION

Crop insurance is a means of “protecting the farmers against uncertainties of crop yields, arising out of practically all natural factors beyond their control”. It is a financial mechanism in which the uncertainty of loss in crop yields, is minimized by pooling most uncertainties that impact crop yields, so that the burden of loss can be distributed. Crop production involves numerous risks - natural, social, economic and personal. However, the principal characteristic, which distinguishes crop production from any other activity, is its great dependence on nature. Crop production unlike almost any other activity, has to be carried on in the face of continual uncertainties arising out of diverse natural and social elements. Normally, the greatest impact of all these elements falls on crops, which remain under the open skies for weeks and months.

Uncertainty of crop yield, is thus one of the basic risks, which every farmer has to face, more or less, in all countries, whether developed or developing. These risks are particularly high in developing countries more to in the tropics as in most of these countries, the overwhelming majority of farmers are poor, with extremely limited means and resources. They cannot bear the risks of crop failure of a disastrous nature. It is true that much of the present uncertainty of crop production in developing countries like India, could be removed by technical measures and by improvements in the social and institutional set-up. That a complete set of initiatives is needed in this regard, goes without saying. Still, a good deal of uncertainty will always be there, as no imaginable measure could make crop production completely independent of natural factors. Also, the physical measures envisioned, need to be justified by their cost-benefit ratio. There may be many places, for example, where flood is preventable, but the cost of prevention measures, would be far out of proportion to their benefit. In such cases, it would be bad economics to spend more capital in preventing a risk, than would be lost by the risk itself (especially where capital is so scarce). Secondly, with a growing population constantly pressing against land, no part of it could be given up for cultivation, simply because it is subject to periodical risks of failure. It is, as much in the country’s interest, as in that of the individual owners that such lands should be kept under plough, even if there were occasional risks of failure.

Therefore, the risks of crop production have to be faced. However a serious crop failure has a cascading affect leading to serious repercussions, for the entire community. Various methods have been adopted for helping to compensate farmers, at least partially, for loss of their crops through natural calamities. In the context of increasing commercialisation and globalisation, the scope and relevance of agricultural insurance are not widely understood in India. Crop insurance, which is generally restricted to field crops, is generally considered synonymous with agricultural insurance. However, agricultural insurance covers a wide spectrum of activities like horticulture, plantations, livestock, poultry, aquaculture, sericulture, etc. Further, it extends to the entire production process including post-harvest storage, processing and transportation of produce to the final markets.

Agricultural insurance has many advantages. First, as the agricultural sector is not well organised on institutional lines, it can help agriculture to develop through institutionalised channels and assist in speeding up the process of commercialisation of the sector. Second, agricultural insurance can play a distinct role in securing credit from institutional sources as it provides security to the lending institutions. Third, it

* Associate Professor, PG & Research Department of Commerce, Gobi Arts and Science College, Gobi, Tamil Nadu.
provides strength to farmers for a better deal in respect of interest rates in a liberalised interest rate regime. Four, it can ensure better recovery of loans as the credit agency would receive the payment from the insurance company in the event of production risk. Five, crop insurance has relevance for improving agricultural technology as with the security of insurance, farmers might be more willing to experiment with new technology. Six, agricultural insurance is an efficient instrument and an institutionalised mechanism for dealing with problems of natural calamities like drought, flood, etc., rather than providing ad hoc aid or relief measures (UNCATD, 1994).

In a country like India, where agricultural production has been subjected to vagaries of weather and large-scale damages due to attack of pests and diseases, agricultural insurance has to assume the role of a very vital institution for the stable growth of the sector. However, the country has failed miserably in this area as, till recently, the Government did not pay much attention on developing a well-designed agricultural insurance scheme. Suicidal deaths of many farmers in recent years in different parts of the country (especially in Andhra Pradesh and Maharashtra) could have been avoided had there been a well-designed crop insurance scheme. Against this background an attempt has been made in this paper to examine the factors influencing them to insure their crops and problems faced by them.

2. OBJECTIVES AND METHODOLOGY OF THE STUDY

To identify the factors which are influencing the farmers for insurance their crops under different schemes and to find out the problems faced by farmers regarding crop insurance schemes are the major objectives of the study.

The present study has been conducted during the period between January and June 2010. This study is an empirical research based on the survey method. In Erode district, there are five taluks viz., Erode, Gobichettipalayam, Sathyamangalam, Bhavani and Perundurai. Of them, by considering the area under cultivation, Gobichettipalayam and Perundurai Taluk have been selected purposively.

The study is largely based on primary data collected by interviewing the sample respondents personally. A detailed questionnaire embracing the objectives were designed and canvassed to the sample respondents personally. The first hand information from the sample respondents with the help of an interview schedule was collected. It is decided to use convenient sampling method. Originally, it was planned to collect the data from 120 sample respondents. Due to incompletion and contradictory information it was possible to have only 100 sample respondents as final sample size.

The collected data were tabulated to make it suitable for further statistical analysis.

As the farmers come from scattered area with different socio-economic backgrounds, there are different factors to different farmers. These factors experienced by the farmers are identified through preliminary investigation. In the study the factors influencing the farmers for availing the crop insurance like crop losses, risk coverage, natural calamities, attractive schemes, reasonable premium, government subsidy, recommendation of friends / relatives, recommendation of officers of agricultural department and recommendation of cooperative society are given in the interview schedule. This section analysis the factors influenced by the sample respondents to insure their crops.

To find out the most significance factors influencing the farmers, a list of nine statements relating to the crop insurance has been collected from various previous studies and consulting with experts. Garrett’s ranking technique has been used. As per this method, respondents have been asked to assign the rank for all factors and outcome of such ranking have been converted into score value shown in Table 1.

3. ANALYSIS

Now we proceed to analyse the findings of the survey. The score and factors values influencing farmers are presented in Table 1.
Table 1: Scale And Score Value For Factors Influencing The Farmers: Garrett’s Ranking Analysis

<table>
<thead>
<tr>
<th>Factors</th>
<th>Scale Value</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>Total Score</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>To prevent the crop losses</td>
<td>fx</td>
<td>1782</td>
<td>1104</td>
<td>744</td>
<td>784</td>
<td>500</td>
<td>616</td>
<td>152</td>
<td>124</td>
<td>76</td>
<td>5638</td>
<td>88.82</td>
</tr>
<tr>
<td>Risk coverage</td>
<td>fx</td>
<td>1134</td>
<td>552</td>
<td>372</td>
<td>112</td>
<td>900</td>
<td>792</td>
<td>380</td>
<td>496</td>
<td>76</td>
<td>5038</td>
<td>80.38</td>
</tr>
<tr>
<td>Natural calamities</td>
<td>fx</td>
<td>648</td>
<td>552</td>
<td>496</td>
<td>112</td>
<td>600</td>
<td>88</td>
<td>532</td>
<td>744</td>
<td>418</td>
<td>4190</td>
<td>41.90</td>
</tr>
<tr>
<td>Attractive schemes</td>
<td>fx</td>
<td>1296</td>
<td>276</td>
<td>744</td>
<td>336</td>
<td>600</td>
<td>264</td>
<td>532</td>
<td>310</td>
<td>380</td>
<td>4738</td>
<td>47.38</td>
</tr>
<tr>
<td>Reasonable premium</td>
<td>fx</td>
<td>810</td>
<td>828</td>
<td>248</td>
<td>224</td>
<td>400</td>
<td>1144</td>
<td>228</td>
<td>186</td>
<td>456</td>
<td>4524</td>
<td>45.24</td>
</tr>
<tr>
<td>Government subsidy</td>
<td>fx</td>
<td>324</td>
<td>690</td>
<td>1116</td>
<td>1008</td>
<td>100</td>
<td>704</td>
<td>456</td>
<td>310</td>
<td>190</td>
<td>4898</td>
<td>48.98</td>
</tr>
<tr>
<td>Recommendation of friends / relatives</td>
<td>fx</td>
<td>162</td>
<td>690</td>
<td>744</td>
<td>1232</td>
<td>1100</td>
<td>176</td>
<td>608</td>
<td>124</td>
<td>152</td>
<td>4988</td>
<td>49.88</td>
</tr>
<tr>
<td>Recommendation of officers of agricultural department</td>
<td>fx</td>
<td>648</td>
<td>1242</td>
<td>744</td>
<td>560</td>
<td>200</td>
<td>440</td>
<td>760</td>
<td>434</td>
<td>76</td>
<td>5104</td>
<td>51.04</td>
</tr>
</tbody>
</table>

Note: x = Scale value  f = Number of farmers  fx = Score value

Table 1 exhibits the factors influencing the farmers to insure their crops. The respondents are ranked from I to IX according to their views. It is seen that risk coverage is considered as the major constraint by the farmers with the highest mean value of 58.82 occupying the first place. To prevent the crop losses with mean score of 56.38 is ranked as the second highest. Recommendation of co-operative society factor with mean score of 51.04 is ranked as third, natural calamities with mean score of 50.38 as fourth, recommendation of officers of agricultural department with mean score of 49.88 as fifth, recommendation of friends / relatives with mean score of 48.98 as sixth, reasonable premium with mean score of 47.33 as seventh, government subsidy with mean score of 45.24 as eight and attractive schemes with mean score of 41.90 as ninth are listed in that order. Hence, it can safely be concluded that the risk coverage is the most important factor influencing the farmers to

4. PROBLEMS FACED BY THE FARMERS REGARDING CROP INSURANCE

The crop insurance faces the problems like soils, agro-climatic conditions, crop varieties, cultural practices, etc., However, crop insurance is important to safeguard the interest and welfare of the farming community for a variety of reasons. First, agriculture has strong forward and backward linkages with the other sectors of the economy and development in agriculture therefore, will improve upon the health of economy as a whole. Second, about two-thirds of the workforce depends on agriculture to earn their livelihood and hence safeguarding their welfare is of prime importance. Finally, Indian agriculture is dominated by small and marginal farmers and crop failures due to natural calamities have disastrous impact on the poor. In
the present study, the problems like crops coverage, payment of premium, settlement of claim, attitude of bank officials, alarming growth of pests and insects, not satisfied with area approach, lack of service and difficulties in opening bank account are provided in the interview schedule. To rank the problems, a list of eight statements relating to the crop insurance have been drawn in Interview Schedule. The sample respondents were asked to rank these statements. To find out the problems faced by the farmers towards crop insurance, Garrett’s ranking technique was used in compiling the information. Findings are shown in Table 2.

Table 2: Scale And Score Values For Problems: Garrett’s Ranking Analysis

<table>
<thead>
<tr>
<th>Problems</th>
<th>Rank</th>
<th>Scale Value</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>Total</th>
<th>Mean Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crops Coverage</td>
<td>f</td>
<td>22</td>
<td>20</td>
<td>14</td>
<td>20</td>
<td>6</td>
<td>6</td>
<td>8</td>
<td>4</td>
<td>20</td>
<td>100</td>
<td>58.42</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td>fx</td>
<td>1738</td>
<td>1360</td>
<td>826</td>
<td>1060</td>
<td>282</td>
<td>240</td>
<td>256</td>
<td>80</td>
<td>5842</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payment of Premium</td>
<td>f</td>
<td>10</td>
<td>22</td>
<td>20</td>
<td>12</td>
<td>22</td>
<td>6</td>
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<td>Lack of service</td>
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<td>20</td>
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<td>960</td>
<td>80</td>
<td>4952</td>
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Note: x = Scale value f = Number of farmers fx = Score value

In the present study, it is found that majority of the sample respondents opined that the factor of risk coverage as a very important factor to insure their crops. Hence, it is suggested that Insurance companies and government have to undertake effective steps to enlighten the farmers about the significance of crop insurance. Similarly, a majority of the sample respondents opined that the crops coverage has been ranked as the most significant problem. Hence, it is suggested that proper steps to be taken by insurance companies and government to provide financial support to the farmers in the event of failure of all crops. Government subsidy given to the farmers should not be withdrawn or reduced. The government should give the required amount of subsidy for the farmers until they themselves become capable of making their payments. Technicalities and the procedures with regard to the claims should be

5. CONCLUSION AND SUGGESTIONS

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simplified. Coverage of crops should be increased and the premium rates collected from the farmers should be increased at least to reach the no profit no loss stage. As the insurance sector is opened up for private sector, it would be more appropriate to allow the insurance companies to participate actively by taking a lead role at the earliest within the effective regulation and supervision of Insurance Regulatory and Development Authority (IRDA). If the farmers have the capability of risk management with different tools, they should not be compelled to purchase crop insurance even if they avail credit from banks and financial institutions.

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A STUDY OF STRESS MANAGEMENT WITH SPECIAL REFERENCE TO TEACHERS WORKING IN PROFESSIONAL EDUCATIONAL INSTITUTES IN LUCKNOW

Jai Pal Sharma*, Rajwanti Sharma** and Manu Srivastav***

Stress may be considered as any physical, chemical, or emotional factor that causes bodily or mental unrest and that may be a factor in disease causation. Physical and chemical factors that can cause stress include trauma, infections, toxins, illnesses, and injuries of any sort. Emotional causes of stress and tension are numerous and varied. While many people associate the term “stress” with psychological stress, scientists and physicians use this term to denote any force that impairs the stability and balance of bodily functions. The aim of the present study is to find out the causes and effects of stress in professional faculty members. However, the broad objectives of the study would include to find out the causes of stress to the faculty, to find out the various symptoms of stress experienced by professional working in the field of study, to explain it as to how the stress affect the ability of the employees to perform at the workplace and to understand the various effects of stress on the performance and behaviour of the employees in the professional institutes.

INTRODUCTION

Stress may be considered as any physical, chemical, or emotional factor that causes bodily or mental unrest and that may be a factor in disease causation. Physical and chemical factors that can cause stress include trauma, infections, toxins, illnesses, and injuries of any sort. Emotional causes of stress and tension are numerous and varied. While many people associate the term “stress” with psychological stress, scientists and physicians use this term to denote any force that impairs the stability and balance of bodily functions.

Stress is defined as a feeling of emotional or physical tension. Emotional stress usually occurs when situations are considered difficult or unmanageable. Therefore, different people consider different situations as stressful. Physical stress refers to a physiological reaction of the body to various triggers. The pain experienced after surgery is an example of physical stress. Physical stress often leads to emotional stress, and emotional stress is frequently experienced as physical discomfort (e.g., stomach cramps).

There are numerous types of stress. Major types are: eustress, distress, acute stress, hyper and hypo stress. Eustress is the type of stress you experience right before you and have the need to exert physical force. Eustress prepares the muscles, heart, and mind for the strength needed for whatever is about to occur. Eustress can also apply to creative endeavours. When a person needs to have some extra energy or creativity, eustress kicks in to bring them the inspiration they need. An athlete will experience the strength that comes from eustress right before he plays a big game or enters a big competition. Because of the eustress, player immediately receives the strength that is needed to perform better. This type of stress will cause the blood to pump to the major muscle groups, and will increase the heart rate and blood pressure to increase. If the event or danger passes, the body will eventually return to its normal state.

Distress is one of the negative types of stress. When the mind and body undergo some changes and normal routine is constantly adjusted and altered. The mind is not comfortable with this routine, and craves the familiarity of a common routine. There are actually two types of distress: acute stress and chronic stress. Acute stress is the type of stress that comes immediately with a change of routine. It is an intense type of stress, but it passes quickly. Acute stress is the body’s way of getting a person to stand up and take inventory of what is going on, to make sure that everything is okey. Hyper stress is the type of negative stress that comes when a person is forced to undertake or undergo more than he or she can take. A stressful job that overworks an individual will cause that individual to face hyper stress. A person who is experiencing hyper stress will often respond to even little stressors with huge emotional outbreaks. It leads to serious
emotional and physical repercussions. The final of the four types of stress is hypo stress. Hypo stress stands in direct opposite to hyper stress. Hypo stress is basically insufficient amount of stress. That is because hypo stress is the type of stress experienced by a person who is constantly bored. Someone in an unchallenging job, such as a factory worker performing the same task over and over, will often experience hypo stress. The effect of hypo stress is feelings of restlessness and a lack of inspiration.

STRESS-MANAGEMENT TECHNIQUES
Many techniques to lower or eliminate stress have been devised. We now proceed to discuss these briefly.

(i) Exercise
Physical exercise not only promotes overall fitness, but it helps to manage emotional stress and tension as well. For one thing, exercise can emotionally remove one temporarily from a stressful environment or situation. Being fit and healthy also increases your ability to deal with stress as it arises.

(ii) Relaxation and Meditation
There are many ways to use structured relaxation and meditation techniques to help control stress and improve your physical and mental well-being. While some types of meditation and relaxation therapies are best learned in a class, it’s also possible to learn meditation techniques on your own. There are literally hundreds of different types of relaxation methods ranging from audio CDs to group martial arts and fitness classes.

(iii) Autogenic Training
Developed in the early 20th century, this technique is based upon passive concentration and awareness of body sensations. Through repetition of so-called autogenic “formulas” one focuses upon different sensations, such as warmth or heaviness, in different regions of the body. Autogenic training has been used by physicians as a part of therapy for many conditions. Popular in Europe (where it is even covered by some insurance plans), this method is currently gaining acceptance in the United States. No particular physical skills or exercises are involved; however, people desirous to learn this technique must be prepared to invest time and patience. Since this technique is slightly more complex than some relaxation methods, a course is generally the best way to learn the method.

(iv) Bio-feedback
Bio-feedback is one method of learning to achieve relaxation, control stress responses, or modify the body's reactions through the use of monitoring equipment that provides information from the body which would normally not be available. This method is based upon the principle first advanced in the early 1960s that the autonomic nervous system (the part we don’t consciously use) is trainable. For example, instruments can be used to measure heart rate, blood pressure, brain activity, stomach acidity, muscle tension, or other parameters while people experiment with postural changes, breathing techniques, or thinking patterns. By receiving this feedback, one can learn to identify the processes that achieve the desired results, such as reduction in heart rate and blood pressure. Biofeedback is used by many practitioners for a variety of psychological and physical conditions. Because the technique involves the use of measuring devices, it can only be performed by a professional.

(v) Meditation Techniques
Ranging from practices associated with specific religions or beliefs to methods focusing purely on physical relaxation, meditation is one of the most popular techniques to achieve physical and mental relaxation. There are thousands of different types of meditation, and many can be learnt on your own. The meditative state is one in which there is a deep centring and focusing upon the core of one’s being; there is a quieting of the mind, emotions, and body. The meditative state can be achieved through structured (as in a daily practice of a routine) or unstructured (for example, while being alone outdoors) activities. While teachers of meditative arts are readily available, some techniques can be learnt through books or online tutorials. A form of meditation popularized in the last few decades is TM, or transcendental meditation. TM has the goal of achieving transcendental consciousness, or the simplest form of awareness. It is practiced for 15-20 minutes in the mornings and evenings and is relatively easy to learn. Numerous classes and teaching materials are available for beginners. Another variant of a meditation technique has gained popularity in the U.S. since its description in the 1970s by Harvard physician, Herbert Benson. This technique involves generation of the so-called relaxation response through the repetition of a word or phrase while quietly seated, 10-20 minutes per day. Designed to evoke the opposite bodily reaction to the stress response (or “fight or flight” reaction), this method carries no religious or spiritual overtones. Its value has been documented in the reduction of blood pressure and other bodily stress responses. Like other forms of meditation, it can be learnt on one’s own, but time and practice are required to elicit the desired relaxation stress.

(vi) Yoga
There are many forms of this ancient Indian form of exercise based upon the premise that the body and breathing are connected with the mind. The practice of yoga is thought to be over 5,000 years old. One goal of yoga is to restore balance and harmony to the body and emotions through numerous postural and breathing exercises. Yoga, which means “joining” or “union” in Sanskrit, has been called the “search for the soul” and the “union between the individual and the divine.” Among the benefits of yoga are increased flexibility and capability for relaxation. No special level of conditioning is required; yoga can be learnt by nearly anyone.

REVIEW OF LITERATURE

OBJECTIVES AND RESEARCH METHODOLOGY
The major aim of the present study is to find out the causes and effects of stress in professional faculty members in their institutions. However the broad objectives of the study would include:

• To find out the causes of stress to the faculty.
• To find out the various symptoms of stress experienced by professionals working in the field of study.

Table 1: Aspects of Stress on Likert Scale in Percentages

<table>
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<tr>
<th>Sr. No.</th>
<th>Aspect</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
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<td>5</td>
<td>Personal family problems</td>
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<td>Insomnia</td>
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<td>15</td>
<td>Control your emotions vary well under pressure</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>16</td>
<td>Satisfied with your work</td>
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<td>20</td>
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<td>0</td>
<td>0</td>
<td>100</td>
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<tr>
<td>17</td>
<td>Your family supports you when you are in stress</td>
<td>10</td>
<td>20</td>
<td>0</td>
<td>0</td>
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<tr>
<td>18</td>
<td>You find positive difficult situations</td>
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<td>20</td>
<td>0</td>
<td>0</td>
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Source: Sample data
• To explain how the stress affects the ability of the employees to perform in the workplace
• To understand the various effects of stress on the performance and behaviour of the employees in the institutes.

Our research is based on both primary and secondary data. Primary data were obtained through the interviews and questionnaire personally administered to the sample respondents. The questionnaire included the closed-ended questions. On the basis of their responses, analysis and interpretation were made with the help of statistical techniques. The secondary data were obtained from books, journals, and internet. Likert scale (five-point) was used to measure the level of stress among respondents. Ten professional institutes (IT and Management) from Lucknow city were selected for the purpose of our study. A sample of 50 faculty members in all was randomly taken from these institutions.

The study will analyse the following aspects of stress. Job insecurity, high demand for performance, technological changes, work place and culture, personal and family problems, gender issue, insomnia, loss of mental concentration, anxiety, absenteeism, depression, frustration, family conflict, handling tense situation without overreacting, control your emotions under pressure, unsatisfied with your work, family support when you are in stress and you find positive different situations. Methods used in removing of stress were also located.

ANALYSIS OF THE STUDY
It is observed from the table that out of 50 people surveyed, 30 percent respondents strongly agree for job insecurity, 40 percent agree for job insecurity, 18 percent are undecided and 12 percent disagree for a job insecurity. It is further seen that performance is very essential in every organisation. Without good performance no success is possible. It is revealed from the survey that only one-fifth respondents strongly agree that high demand of performance is in aspect of stress and two-fifth just agree for it, while one-fifth are undecided, 12 percent disagree and 8 percent strongly disagree.

Technology is changing very fast and every organisation has to adopt the changes in technology, if it wants to survive and progress in this age of cutthroat competition. As to the cause of stress about one-fifth attribute strongly to technological changes while a little more than one-third do not consider technological changes as a reason for their stress. Notably, we are living in a global village and this is the time of LPG (liberalisation, privatisation and globalisation). Every organisation has to operate in this changed environment for its survival. Interestingly, nearly one-third faculty strongly agree in workplace and culture causing stress. Only about 8 percent disagree that this factor is not predominant. Understandably, different persons have different family problems which create stress at workplace. We have tried to find out whether this statement is true or not. It’s seen that nearly one-fourth strongly agree with this and nearly one-fifth disagreeing with it. Now-a-days male and female work together in every field. But at some places gender problems create stress. It is found that this factor does not pose a serious problem in these institutions and nearly three-fourth disagree with it. Insomnia as a symptom of stress is experienced by more than three-fifth faculty. Further loss of mental concentration is a symptom of a stress in which effected person loses mental concentration. Out of surveyed respondents, about 28 percent strongly agree with it while only 10 percent disagree. Similarly, about one-fifth acquire stress on account of anxiety, whereas a little more than one-fourth do not see it a potent factor. About 18 percent agree strongly that absenteeism is due to stress and about one-fifth among them are undecided. About one-fifth agree strongly that stress leads to depression and a cause of frustration. It is quite revealing and contradictory to the commonly held belief that family conflict is a source of stress. Nearly one-fifth respondents strongly disagree with it. Overacting appears to be a major cause contributing to stress. About 28 percent respondents handle tense situations without overreacting. A little more than one-third respondents are quite satisfied with their work while almost equal number dissatisfied. It is heartening to note that in the present environment the respondents get overwhelming family support when they are under stress. A little more than one-fifth find themselves in a positive mood even under the difficult situations.

Methods to Remove Stress
It is seen from the pie chart that respondents use different methods in removing stress. Interestingly, music is found to be the single predominant factor used by the respondents in lessening stress. Exercise and yoga are also used by a majority of respondents to reduce stress. Sleeping, movie, chatting, outing with friends and reading of books are reported other methods to lower or eliminate stress.
CONCLUSION AND RECOMMENDATION
The different methods which can be used to manage the stress are yoga, exercise, mediation, music, outing with friends, sleeping, chatting, reading books etc. In a stress like situation, family support is very essential to handle tense situation without overreacting. The analysis reveals that about one-fifth, more than one-tenth, about one-fourth and one-tenth use music, movie, yoga and outing with friends respectively to lessen the level of stress. Again six percent use sleeping, 14 percent people use chatting, 10 percent people use reading books and four percent use other methods for managing the stress. In present environment, every human being is facing the problem of stress. The stress is inevitable. It also affects the efficient working of teachers working in educational institutions. The problem, in fact, is not of removing the stress but managing the stress properly. Recognize the symptoms that indicate serious stress level before it’s too late. Understand the link between procrastination and stress and stop procrastinate once and for all. Learn how to ensure other, don’t loud their problems on you. Learn to say “No”

REFERENCE
GREEN MARKETING: STRATEGIES AND CHALLENGES

M. R. Chhikara* and Supriya Chaudhary**

In today’s business world environmental issues play an important role in marketing. There is growing interest among the consumers all over the world regarding protection of the environment. Worldwide evidences indicate that people are concerned about the environment and are changing their purchasing and marketing behaviour. Thus green marketing has emerged that speaks for growing market for sustainable and socially responsible products. This paper lays emphasis on as why the concept going green has become so important. The paper identifies the challenges faced by the green marketing and also suggests the business strategies which would help overcome the hindrances in adopting green marketing in practice.

1. INTRODUCTION

The twentieth century has seen the uneven growth among nations. The world population grew at a very high speed that boosted mass market. But with the beginning of twenty-first century the social and environmental consequences of unbalanced economic growth have become increasingly clear. Increasing level of greenhouse gases in the atmosphere, a hole in the ozone layer caused by CFC releases, widespread destruction of the rain forest and a growing list of endangered species and ecosystems are just a few of the indicators that all is not well.

The result has been that the concept of green marketing has gained importance. It began in Europe in the early 1980s, when specific products were identified as being harmful to the earth's atmosphere. Green marketing incorporates a broad range of activities including product modification, changes to the production process, packaging changes, modifying advertising and host of others.

The green marketing has evolved over a period of time in three phases which are: ecological, environmental and sustainable.

All said and done the concept of green marketing assuming importance and the only hope for man kind for its living. After having discussed its importance, paper than analyses challenges and strategies in that order. We have drawn heavily on various sources to prepare this research paper.

2. IMPORTANCE OF GREEN MARKETING

As resources are limited and human wants are unlimited, it is important for the marketer to utilize the resources efficiently without waste as well as to achieve the organizations objectives. So green marketing is a new dimension of marketing. We have identified here five reasons for which a marketer should go for the adoption of green marketing:

2.1 Opportunities or Competitive Advantages

All types of consumers both individual and industrial are becoming more concerned and aware about the natural environment and have modified their purchasing behavior accordingly. With the change of consumer’s behavior many firms see these changes as an opportunity to be exploited. It is believed that the marketing of environmental goods will have a competitive advantage over the other goods. For example less use of polythene bags will save the soil, CFL lightings will transmit less carbon and our air will be less polluted. This does not imply that all firms who have undertaken environmental marketing activities actually improve their behavior. The most important precaution that needs to be taken is to avoid green wash a term describing the deceptive use of green marketing in order to promote a misleading perception that a company’s policies are environmentally friendly.

2.2 Corporate Social Responsibilities (CSR)

Many firms have started to realize that they are the members of the wider community and must behave in an environmentally friendly manner. There may therefore two types of firms: a) firms which state the fact that they are environmentally responsible as a tool of marketing, and b) those who are environmentally friendly but do not disclose this fact before the consumers. For example: Coke invested a large sum in modifying their packages to minimize the environmental impact on its products. But Coke did not use this fact as a marketing tool. Thus, many consumers could not realize that Coke is a very environmentally committed company. Therefore, every firm must disclose this fact.

2.3 Government pressure

* Associate Professor, Department of Commerce, Delhi College of Arts and Commerce, University of Delhi.
** Associate Professor, Maharaja Surajmal Institute (MSI), New Delhi.
It is the primary duty of the government to protect the consumer’s interest which has green marketing implications. Government regulations relating to environmental marketing are designed to protect consumers in several ways by banning production of harmful goods or byproducts, banning the consumption of harmful goods, evaluating the system by which the common consumers may identify the sub standard goods easily.

2.4 Cost or Profit Issues
As society becomes more concerned with the natural environment, firms have begun to modify their behavior in an attempt to address society new concerns. Some firms have been quick to accept concepts like environmental management systems and waste minimization and have integrated environmental issues into all organizational activities. There are still majority of firms who believe that promoting green marketing costs too much and will reduce their profit. So they have little motivation to carry out green marketing. Such firms may be right in the short term but in the long range view, the cost actually not necessarily increases, instead, it will drop and the income can increase. This can be done in two ways by i) developing a technology for reducing waste and sells it to other enterprise, and ii) through waste recycling.

3. CHALLENGES OF GREEN MARKETING
In adopting green marketing policies, firms may encounter many challenges. Key green marketing challenges are as follows:

3.1 Consumers Attitude vs Behavior
Consumers world wide have become environmental conscious. Poll held in U.S in 1990's show that 87 per cent of adults in U.S are concerned about the conditions of the natural environment (Phillips, 1990), 80 per cent believe that protecting the environment will require major changes in their current lifestyle (Ottman, 1996) for its protection. Some scholars believe that consumers are ready to pay premium for green products because they often prefer green attributes over traditional product attributes such as price and quality. Nearly half of the Americans claim to look for environmental labels and to switch brands based on environmental friendliness. However, the caveat is that such claims and attitudes may not always translate into actual behaviors (MacGuire, 1995). One reason could be the social pressure to be green (Ritchie & MacDougal, 1985). Consequently, notwithstanding the claims about the concern for the natural environment, mass consumer markets for green products in most categories have yet to develop.

3.2 Stake Holder and Institutional Pressures From economist's point of view the maximizing shareholders wealth leads to social objectives of the firm. But the present view is in favor of institutional focus providing for the impact of the non-market institutions. There are many institutions apart from the shareholders to have the stake into the firms. These stakeholders put legitimate pressure to change policies in their favor and to win the stakeholders trust, firms are compelled to rationalize, to move and provide green products. It leads us to the broader issues known as corporate social performance responsibility and responsiveness.

3.3 Collective Action Dilemma
So far we have pointed out the compulsive reasons to adopt green marketing strategies from consumers in the market and from other non market stakeholders. Now to actually include the green marketing impact into the firm system, process and products, the benefits to the firm must be non excludable (Harding, 1968; Olson, 1965). The dilemma part is: the collective action by the firms in favor of the market and non market forces lead to sub optimal outcome both for individual actors and collectively. Political economists assume that different market and non market stakeholders, employees, consumers, firms and regulators etc must have non excludable benefits from green marketing. For example, in Japan, employees are the major concern followed by customers with shareholders having minimal influence and concerns. However in US, stockholders (shareholders) are the top priority.

3.4 Social Auditing of Green Claims
The claims of the market and non-market forces of going green must be done through proper auditing procedure but there is no legal authority to verify or evaluate such claims. For example, in India at least two Acts- Environment Protection Act, the Act on Air and Water, there is no political will to implement these. For example in the beginning of the year 2010, the Delhi Govt issued a notification banning the use of polythene bags. But, in practice, it could not be controlled and the polythene bags are used openly in the market. Now the Govt is trying to bring the policy of recalling the used polythene bags from the consumer so that they can be recycled & reused. Thus, we see that social auditing of the green claim are not properly adopted. Porter & Linde (1995) have confirmed that the human race need to work more than what is being currently done for being green and competitive.

3.5 The Role of Incentives and Structural Factors Now
Green marketing is primarily based on information motivation of the media in this regard. Make their final choice based on their own or on the consumer's must test their firm's credibility ensure the adequacy and reliability the stakeholder/agencies. Such information could be voluntary or mandatory disclosure available to firms and the government extent. In addition to mitigating collective action dilemmas, collective sacrifices provide consumers with greater level of confidence that their actions will make a difference.

But at one stage, the consumers may opt out from both that is individual and collective sacrifices and prefer to shift the burdens of sacrifice on firms. Marketing literature also examines the relative salience of consumers attributes and structural parameters (market environment, social norms & institutions) in inducing environment friendly behavior. There is also a debate on the relative efficacy of economic and non-economic factors in inducing behavioral changes. If the public policies reflect the citizen preferences then the individual attitudes can overcome the structural barriers. The impact of economic incentives/disincentives varies across income brackets. For upper income levels, they are less efficacious whereas as for other groups they may influence their preference. Thus green marketing can be termed as a three-pronged exercise. Consumers can be motivated to curtail (to reduce the impact on the environment by modifying extent living patterns), to maintain (keep equipment in good working order and to be efficient undertake structural changes such as buying environment friendly equipment). Marketers need to correctly identify consumer propensity for the three routes at a different value/price levels and accordingly design/market their products.

3.6 Information Disclosures disclosure available to firms and the government agencies. Such information could be voluntary or mandatory but the mandatory disclosures may ensure the adequacy and reliability the stakeholder/consumer's must test their firm's, products credibility through an independent audit. The consumers make their final choice based on their own or on the information they received. The essence of our discussion is to know whether and how information on greenness impacts consumer's decision making. This assumes that consumers purchase products primarily based on product's attributes. However, in some other cases, firm-level attributes (greenness of processes and systems) may be important for developing promotional strategies. Perhaps consumers want green products from green firms. From a managerial perspective, if the brand attributes are more salient, firms should invest in greening products, but if corporate images are more important, focusing on firm-level processes / systems is desirable (Prakash, 2000a).

Consumer goods companies, such s General Mills, Unilever, and Procter and Gamble, focus their communications on their brand and the benefits they deliver. Such firms focus their communication on highlighting brand attributes and how these attributes satisfy consumer needs. The advertising of Procter and Gamble highlights the superior cleaning performance of Tide, the freshness of Ivory soap or the beauty-enhancing effect of Oil of Olay. Most consumers probably do not link these brands to greening products, but if corporate images are more important, focusing on firm-level processes / systems is desirable (Prakash, 2000a).

Firms focusing on corporate advertising or having generic brand names across products (such as Sonly) have incentives to green their processes / systems (firm-level greening) and to communicate their corporate commitment to environmental stewardship. This enables them to tap into economies of scale in advertising. Of course, a reliance on corporate
advertising would require an integrated organizational approach to greening process / systems as well. Firm- and product-level greening, however, are not mutually exclusive. Most firms perhaps invest in both. Nevertheless, in terms of their relative salience, a distinction between brand-focused and firm-focused greening strategies is important.

4. STRATEGIES OF GREEN MARKETING
Many marketers now grow their businesses by addressing the specific environmental issues most relevant to their consumers. In the process, they save their money and enhance corporate and brand image while ensuring future sales for their products. One must use the following strategies to create profitable new or improved products and packages that balance consumer’s needs with environmental considerations.

4.1. Minimize Direct Environmental Impact
The excessive use of pesticide and chemical fertilizers in crops potentially pollute soil, water and atmosphere and also poses a potential threat to health and humans and wild life. According to EPA, about the pesticides registered and currently in use are probable or possible cause of cancer (Lisa). Children, in particular, are highly vulnerable. This has been brought out by various reports that the rising number of cancer patient more in fertile areas of Haryana and Punjab as compared with other states of the country are largely due to heavy use of pesticides. This is for the reason that people in Haryana and Punjab prefer M.P. wheat which is claimed to be organic

4.2 Sustainable Forestry Management
Forests are the valuable assets of every country gifted by nature, it is essential for every government to protect this natural gift which is very potential factor to protect the natural climate of its region. A nation can create healthy and environment friendly climate by designing a well planned and highly eco-sensitive practice of sustainable forestry management. Collins Pine of Polland developed an idea and he advocated a theory that each section of the forest is cut on a ten year cycle, and no more timber is harvested than was produced in the previous decade. Healthy and matured trees are left to grow while aged or deceased tree are felled. Species mix, tree spacing, animal habitat and other factors are taken into account in deciding which trees to cut. In five decades, Collins Pine has produced 1.5 billion boards fit of lumber, yet their forests still contained as much wood as when timber harvesting began.

4.3 Use Sustainable Source of Raw Material

The prospect of rapidly depleting stock of natural resources and resulting reality of price increases create opportunities for alternative technology and new efficiency with product design. Paper is a renewable and recyclable product that, if responsibly produced and consumed, is an environmentally sustainable media. The paper does not have to come form trees, in fact, alternative source may be preferable. Promising new source include Kenaf, a fast growing bamboo from southern United State and Hemp, which naturally is pest resistant, can be bleached with peroixide instead of chlorine, produces a fiber more versatile then fiber from trees.In 1995 the tree-free ecopaper company of Portland, Oregon, began producing hemp paper made form imported source (hemp has been outlawed for cultivation in the United State since 1937).

4.4 Source- Reduce Product and Packaging
Now almost all countries in the world have inacted their own Act to prevent the pollution. The main object of such legislation is to prevent or reduce the pollution at its source whenever feasible. Less packaging also means less energy required for manufacturing and transportation and less pollution from the production of packaging itself. For example, S.C.Johason's steel aerosol cans use 35 per cent less then the cans of late 1980's package in bulk for refilling.

4.5 Conserve Natural Resources
Habitats and Endangered Species:- in many countries ground water- the primary source of water is being pumped out faster then it is being replenished. The Government of India is very seriously trying to implement the scheme of rainwater harvesting by providing some subsidiary on its expance. Moreover the agricultural scientists in India have developed the new and improved variety of wheat which require less water. As a result the country has become almost self sufficient in food grains with its limited resources. In the world market, the different maker of washing machines provide some new and improved brands which requires less water in cleaning the clothes.

4.6 Use Recycled Content
Recycling cuts pollution and conserves natural resource, conserves energy, cost-competitive and creates jobs and reduces cost in manufacturing section that are an important part of our economy (Dimensions 1996). With the help of innovative technologies, the use of recycled content in consumer products has skyrocketed in recent years. Particularly in U.S. while some times ago, recycled content was limited mostly to paper, glass, metals, and some plastic laundry bottles, now an entire array of high quality products
including clothing, garden furniture, paint and motor oil are closing the loop. For example, Wal-Marts, Safety Kleen, by using innovative re-refining process converts the components of used oil and other usable products and is now the number one supplier of refined oil in the United States (1996).

4.7 Make Products Energy Efficient
Better balanced use of energy is equally essential. For example the Delhi Government recently announced a scheme of giving one CFL tube free on purchase of one tube from its outlets. Although these tubes cost significantly more but save energy and provide better light with long life. Moreover the government provides a good subsidy on purchase of electric car which combat pollution. Recently, the Maruty car company launches five new models of its cars which can be run of CNG also, the most ecofriendly and environmentally friendly fuel as compared to traditional fuel. Another example in this regards is electric gasoline hybrid cars in the world market.

4.8 Make Products More Durable
As demonstrated by historical sales pitches for Maytag washers and Volvo cars, consumers value durable appliances and automobiles. Thanks to environmental concerns, long product life will increasingly become a source of added value and an indicator for quality and convenience in many other industries as well. For example, Lexus now gives a second life as certified pre owned cars. Their luxury cars cycle back from rental –car companies or leasers, and wind up in new drive ways. In India also, almost all car dealers sell second hand cars of all makes after over hauling them on a certified guarantee.

4.9 Make Products and Packaging Reusable or Refillable
The throwaway convenience culture is making way for reuse and refilling as alternatives to land filling, incineration, and even recycling. The toys, phones, smoke detectors, watches, batteries, and other heavy-metal laced receptacles are used for land fillings with the potential to contaminate ground water. Traditional rechargeable batteries are not an acceptable alternative. When disposed of, they are the leading source of cadmium in the waste stream, and because cadmium has been linked to kidney and respiratory cancer, many states outlaw their disposal in landfills. Rayovac offers the battery-consuming public a solution – renewal, a reusable alkaline battery. Powered with Zinc and Magnesium, which the FDA categorizes as generally recognized as safe. Renewable batteries last longer per charge than nicad batteries and, with the help of a special device can be recharged 25 times or more like all alkaline batteries, they are safe for landfill disposal.

4.10 Make Products Safe For Disposal
Consumers think cleaning products should be bio-degradable. This implies that ingredients break down quickly and harmlessly after they go down the drain. But not on all ingredients are expected to bio-degradable. One of these is phosphate, a common ingredient in detergents. Their nutrients are readily taken up by water plants. However, when too many of them get in to river and lakes, they cause algal balloons, robbing the water oxygen, blocking sunlight, and ultimately killing fish and other marine life. Chlorine is another problem. Although it breaks down, it can react in a harmful way with organic compound. Then the detergent manufacturers started use of Zeolites in place of phosphate, but Zeolites are also not considered totally safe and assures of water pollution. Ultimately Amway Corporation of Ada has created a detergent which is considered a safe one.

4.11 Make Products And Packaging Compostable
In nature, every thing is recycled. Waste for one organism becomes food for another. According to EPA, approximately 40 per cent of our solid wastes are bio-degradable materials that can be effectively composted into human and organic matter that can enrich gardens and agriculture soils. This has important implications for businesses, and a number of innovative designs are developing products with this idea in mind. For example, plastic is widely used around the world. Plastic improperly disposed of on land or in water can seriously impact marine life and waterfowls, and, by one estimate, plastics, along with discarded fishing gear, kill one million sea birds annually (1996). Now, fully bio-degradable polymers made primarily from agricultural products such as corn hold promise for creating new recycling/ recovery options for plastic packaging, food service and home products.

CONCLUSIONS
Environmental issues influence all human activities in one way or the other. As consumers are concerned about the environment and their health, green marketing has assumed importance. It ensures the interest of the organization and its consumers are protected too. Both the buyers and sellers mutually benefit. The enterprises must establish new green marketing thinking, give up the temporary benefits and pursue the persistent environmental protection profit policy. Only by doing this, can they stand firm in the international market withstanding competition.
Green Marketing is not merely the need of the hour but also a profit making tool for marketing and manufacturing firms. Consumers have a tendency to trust those firms which lay stress on the protection of environment as they are feeling socially conscious and honest.

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MANAGING EXAMINATION THROUGH MEDITATION

A.S. Rana*

Every student wants to achieve the desired success in his/her examination in an environment of rapidly increasing competition. Meditation may help the students in this direction if it is properly managed in terms of the type and the form of its application. The present study, based on self-introspection method, finds that management of studies with Rajyoga meditation produces not only several positive effects but also raises the intelligence quotient (I.Q.) of students. The application of the Rajyoga meditation may generate significant impact on studies for examination.

INTRODUCTION

Examinations have always been the testimony of the level of knowledge acquired for various degrees or for admission to different professional courses or for entry in different services. In modern times due to over increasing competitions in the aforesaid examinations, success is becoming difficult day by day.

To achieve the desired success in examinations, we may practice meditation or spiritual yoga while preparing for them, because it may enlighten and energise students' minds and may raise their intelligence quotient (I.Q.). The study, therefore, raises questions like: What type and form of meditation or yoga is to be managed? How does meditation help in studies? What are the different effects of managing meditation for studies for examinations? The present study is an attempt to probe answers to such questions.

BACKGROUND

While attending an international education conference at Gyan Sarover, Mount Abu (2001-02), I listened attentively to an engineer turned Sadhu (who became sadhu after resigning the government job of an engineer). He pointed out that meditation increases the intelligence quotient (I.Q.) of students. He quoted his experiments conducted on 9th and 10th standard students. Thereafter his speech, I personally contacted him and enquired further to which he affirmed that meditation helps to sharpen intelligence and enhances concentration. Then I decided to carry out research at micro level after my retirement from active service to investigate the hypothesis that meditation helps in acquiring education or in raising I.Q.

To do that, I considered Raj Yoga meditation which states that remember God Shiv while doing work and be Karmyogi. This is also advocated by Prajapati Brahma Kumaris Ishwarya Vishwavidalya, Mount Abu. Devi Saraswati's picture also shows a garland (mala) of beads in one of her hands and books in another hand. This implies that according to Devi Saraswati also God should be remembered (mala of beads in one hand) while studying book or acquiring knowledge (as there is a book in her another hand) simultaneously. How to manage it was a difficult problem for me?

* Professor and HOD (Retd.), Department of Economics, M.D. University, Rohtak.
I found it impracticable to remember God simultaneously with studies because our mind can have only one thought at a time. Remembering God while walking, eating, cooking etc. is practicable because such activities are carried out automatically by legs, hands etc., once these are ordered by the self or the soul for doing the desired activities, of course, with a little care. But the activity of studying or learning requires entire attention and full concentration. Hence, to remember God Shiv simultaneously with studies being carried out for examinations is impracticable and impossible; which may be practicable and useful while doing research work because research is a 24 hours affair.

The way out which I had to manage was to sit in Rajyoga meditation (connecting soul with Supreme soul to charge it with peace, purity, love, might, bliss etc.) for some time just before the start of studies. This method is also corroborated by our traditional system of morning prayers which we offer before starting the classes in our schools. Following results have been discerned by the study:

EFFECTS OF MANAGING RAJYOGA MEDITATION WITH PREPARATION FOR EXAMS

When I practiced Rajyoga meditation just prior to the studies at my residence or in library for the purpose of preparation for exams, I experienced the following effects:

(i) Concentration
During preparation for the MBA IInd semester examination with managing Rajyoga meditation, I would study relatively with greater concentration. For this I used to meditate for sometime before the commencement of studies as under:

<table>
<thead>
<tr>
<th>Period of Studies</th>
<th>Period of Prior Meditation</th>
</tr>
</thead>
<tbody>
<tr>
<td>02 Hours</td>
<td>8-10 minutes</td>
</tr>
<tr>
<td>03 Hours</td>
<td>12-15 minutes</td>
</tr>
<tr>
<td>04 Hours</td>
<td>18-20 minutes</td>
</tr>
<tr>
<td>05 Hours</td>
<td>22-25 minutes</td>
</tr>
</tbody>
</table>

Such a relationship as shown in the table given above, has been established on the basis of my personal experience from time to time. After meditation, mind used to turn cool and calm leading to greater concentration.

(ii) Understanding of Difficult Problems
During meditation, I used to report to the God not only the various mental pains and disturbances I suffered at that time but also enjoyed the company of the Ocean of peace (God), making my mind peaceful. Besides, the mind become powerful also due to being in the company of the Almighty God Shiv during meditation. A peaceful and powerful mind becomes capable of handling the difficult points and problems easily and quickly.

(iii) Angry and Reactive Mind
Sometimes due to external adverse environment, mind becomes angry, restless and reactive. It may be due to some quarrel with fellow friends or one may feel insulted due to rude behavior of teachers or parents. All this would not allow the mind to concentrate on studies. Under such situations if one sits in meditation and gives true accounts to God of all the incidents troubling one’s mind, the mind becomes light, receptive and ready for studies.

(iv) Happiness
Studying after meditation becomes a pleasure as I found it easier to understand the intricate and difficult problems easily with a peaceful and energetic mind. Such achievements used to give happiness which made studies interesting and pleasure giving for me, encouraging me to study more.

(v) Space Learning
Normally, mind is fed up with studies after studying for about 3 or 4 hours at a stretch and it requires rest. A space for further learning is required to rejounate it. But such a state of mind can be refreshed if we meditate for about half an hour and may get ready quickly for further studies as per my personal experience.

(vi) Saving of Time
Prior-meditation used to increase my speed of understanding and grasping the subject matter. It increased my efficiency and saved time which is very important in present tough competition era.

(vii) Effect on I.Q.
All the above factors or effects increased my I.Q. in terms of increase in the percentage of marks which I obtained in the IInd semester MBA exam. During preparation for this examinations, I managed to practice Raj Yoga meditation and my percentage of marks rose significantly. Thus, the study finds that meditation is helpful in increasing one's I.Q.

LIMITATIONS

1. Concentration during meditation being managed for studies also matters. Increased concentration will yield better results.

2. In the aforesaid studies and in other studies, for that matter, the paper setters and evaluators of answers book may differ from one semester examinations to another semester examination, affecting the percentage of marks.
3. The study also suffers from the limitation that counting of number of hours devoted to studies in the two semesters and their comparisons have not been managed.

CONCLUSION
Thus, the Hypothesis has been empirically verified and seems to be relevant in modern times. In view of its importance it invites further such studies. The study reveals that rajyoga meditation is very significant and beneficial in preparation for examinations. It increases our concentration, efficiency, happiness in studies by making the mind peaceful and energetic on one hand and acts as a means to solution for difficult problems, space learning, angry and reactive mind on the other. All these have salutatory effects on our I.Q. However, the study suffers from certain limitations as well.

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BRAND ASPIRATIONS AND SWITCHING BEHAVIOUR OF RURAL CONSUMERS - A CASE STUDY OF HARYANA

Sanjeev Kumar* and M. R.P. Singh**

Brand is not a mere name or a assimilation of certain physically verifiable attributes that a consumer identifies, rather it is the whole set of image that consumer holds of a product and expression of desires and self-assessment that consumer attaches to a product. The present paper is an attempt to study the pattern of brand consumption in rural Haryana as to which brands were finding a favour with rural consumers and how consumers were shifting the brand choices with time and entry of newer brands particularly of MNCs. The paper is an exploratory cum descriptive research. The product category was confined to TV only. The paper gives interesting findings that rural consumers were not only aware of variety of brands in product category under reference but also were using a large variety of brands which had a certain association with variables like income, education and caste, and brand choices were affected by these factors. Also a certain brand shift was visible. The paper exhibits that modern brands act as great aspiration for rural consumers and their switch over behaviour.

1. INTRODUCTION

Brand is not a name that a consumer knows a product with or merely an assurance of quality, rather it is an expression of desires and self-assessment that consumer often attaches to a brand. Developing societies shift from necessities to comfort and from comfort to luxuries and leisure. Similarly they are likely to shift from locally available brands to national and international brands as their education and exposure grows.

It is believed that rural markets are the hub for locally made and low price products. Brand consciousness is yet a distant thing. It raises many questions with little answers as to what products and brand variants should marketers offer to rural consumers. Should they be treated like any other market or a market that needed special treatment? The reality may well reveal otherwise especially with growing income, education and media exposure coupled with highly focused attempts on the part of the marketers. The present paper deals with this situation and attempts to find out the actual picture with the following objectives in view.

2. OBJECTIVES AND RESEARCH METHODOLOGY

- To look into the brand possessions of rural consumers in case of TV.
- To study the importance of brand in consumer decision-making.
- To study the impact of the advertisements on consumers’ brand preference.
- To study the future brand aspirations.

The present research being exploratory-cum-descriptive in nature mainly is based on primary information collected with the help of structured questionnaire and un-structured interview to unveil the deeper psyche wherever required. For this purpose, the ‘universe’ comprised of the entire rural Haryana i.e. all the villages. Since, it was not feasible to study the entire Haryana; the researcher drew a representative sample from four zones in Haryana as divided by the Government of Haryana on the administrative basis. Two districts from each zone were chosen at random and further two blocks were randomly chosen from each district, which were divided into two categories i.e. near to the city and far away on the basis of distance where nearness is defined as less than 20kms. Thereafter from each block two villages were selected at random, and from each village around 5 to 10 percent of households were surveyed giving a total of five hundred respondents in all. In the entire survey, 32 villages were covered out of 16 blocks and 8 districts. The data was analyzed with the help of frequency distribution, ranking methods, coefficient of correlation, chi-square and multinomial logit analysis.

3. REVIEW OF LITERATURE

Impact of globalization would be felt in rural India as much as in urban. However, it will be slow (Kannan, 2001). It will have its impact on target groups like farmers, youth, and women. Farmers, today ‘keep in touch’ with the latest information and maximize
both ends. They keep their cell phones constantly connected to global markets. On youth, its impact is on knowledge and information and while on women, it still depends on the socio-economic aspect. While talking about profile of rural consumers it can be observed that, the profile of rural consumer is changing rapidly. They are becoming more aware and buying more luxuries than ever before (Bishnoi, 2001). Increased discretionary income and improved level of awareness have made the rural consumer shrewd enough to expect value for money and compare themselves with their urban counterparts. They are allured by their improved quality and packaging, and demand satisfaction at affordable prices (Vyas, 1997). The rural audience has matured enough to understand the communication developed for the urban markets, especially with reference to FMCG products (Kannan, 2001). Yet certain basic values and beliefs are still the same like boy child being preferred over a girl child. Media exposure, education levels and many other factors come into play when we describe rural consumers.

In the last decade, Indian marketing has been witnessing entering of numerous MNC brands across various products categories; MNCs find it thorny affaire (Venkatash and Balachandran, 2006). It is the major exercise of localization of MNCs global brands. The process seems to be a difficult affair due to the complexities involved, as the Indian market is known for its diversity. The localisation is to be carried across all the Ps of marketing mix like Uniliver Ltd. acknowledging Self Help Group for creation of societal brand image. Biggest mistake a FMCG company made while entering the rural India is to treat it as an extension of existing urban market (Manoh Raj and Selvaraj, 2007). But there is a vast difference in the life styles of urban and rural consumers. The rural consumer is economically, socially and psychologically different from his urban counterpart. In rural markets, brands rarely fight with each other; they just have to be present at the right place. Fewer brand choices are available in rural: number of FMCG brand in rural is half that of urban (Bansal and Easwaran, 2004). Brand loyalty is a function of behavioural and cognitive pattern of consumer and demographical variables affect them significantly (Verma and Munjal). A significant association exists between Brand loyalty and reference groups’ advice. Quality is found to be the most important factor affecting the brand choice decision followed by price, availability, packaging and advertisements.

Trends indicate that the rural markets are coming up in a big way and growing twice as fast as the urban, witnessing a rise in sales of hitherto typical urban kitchen gadgets such as refrigerators, mixer-grinders, and pressure cookers (Kannan, 2001). Kumar and Bishnoi (2007) in a study have revealed that the ruralites (in Haryana) are not only aware of the brands but also possess variety of brands as far as durables are concerned. They are quite open to adopting newer brands and products. Sahoo and Panda (2005) revealed that 75 percent of the total expenditure on manufactured consumer goods is spent in rural India. They observe that rural consumers consume significantly modern items as compared to traditional items.

From the review of literature it is evident that not much attempt has been made to look into psychographics and behavior of rural consumer, leave side studying the brand preferences and aspirations. Apart from it, lots of misgiving prevail about rural consumers especially of those parts of rural India which are not so backward, including rural Haryana. The present study aims to look if rural Haryanvis are different in their brand preferences and aspirations. Do they need different sets of product features and brands specially designed for these markets? Or only more focused and well designed marketing approach?

4. ANALYSIS AND FINDINGS
4.1 Brands Possession
In order to study brand aspirations and importance of brand as a factor in consumer decision making, it is important to study the brand possession of rural consumers. The following analysis attempts to look into the brand possession of TV. The results have been quite interesting and seem breaking the commonly held belief that rural people were not usually aware of modern brands and settle for local and cheaper variants of products. Rural people of Haryana were not only found aware of all major brands of consumer durables under reference but also possessed these in quite a sizeable numbers. Table 1 shows that about 60 percent of rural respondents possessed colour TVs. Majority of the respondents were found to possess LG, followed by Videocon, BPL, Onida, Akai and Samsung. The analysis clearly points towards the awareness level of rural people of Haryana and their urge to possess big and multinational brands. The same trend continues in case of two other products under reference, i.e., refrigerator and motorcycle.
Table 1: Brands of Colour TV Possessed (N=465)

<table>
<thead>
<tr>
<th>Brand Name</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>LG</td>
<td>60</td>
<td>21.3</td>
</tr>
<tr>
<td>Videocon</td>
<td>46</td>
<td>16.3</td>
</tr>
<tr>
<td>BPL</td>
<td>36</td>
<td>12.8</td>
</tr>
<tr>
<td>Onida</td>
<td>30</td>
<td>10.6</td>
</tr>
<tr>
<td>Samsung</td>
<td>28</td>
<td>9.9</td>
</tr>
<tr>
<td>Akai</td>
<td>28</td>
<td>9.9</td>
</tr>
<tr>
<td>Sansui</td>
<td>13</td>
<td>4.6</td>
</tr>
<tr>
<td>Philips</td>
<td>9</td>
<td>3.2</td>
</tr>
<tr>
<td>Sony</td>
<td>5</td>
<td>1.8</td>
</tr>
<tr>
<td>TCL</td>
<td>4</td>
<td>1.4</td>
</tr>
<tr>
<td>T-series</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Others</td>
<td>22</td>
<td>7.8</td>
</tr>
<tr>
<td>Total Possession</td>
<td>282(60)^*</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Primary survey

* Figure in parenthesis denotes percentage possession of CTVs

4.2 Brand Shift Pattern

Brand shifts is clear from Table 2. With passage of time the possession pattern of respondents was found shifting from local brands to national brands and national brands to multinational brands. Six years back, Onida (read it from the time of data collection, i.e., 2005-07) was the market leader with 35.2 percent followed by Videocon and BPL. The players like Samsung, Akai, and Philips had a very little presence. But within two years from this (four years back) LG, Samsung and Akai emerged very strongly with LG assuming the position of leadership. BPL was left behind with 15.17 percent market share and Onida was turned into a marginal player in Colour TV market from leadership position with only 7.14 percent market share. Players like Samsung, Akai, and Sansui strengthened their position in the market. During last two years, LG has emerged as market leader with 33.64 percent market share followed by Videocon and Samsung. Onida and BPL were left behind. Rural consumers were looking for more sophisticated and globally renowned brands possessing which were certainly enhance their self esteem.

Table 2: Brand Wise Possession Time of Colour TVs

<table>
<thead>
<tr>
<th>Brand Name</th>
<th>Possession Time (in years)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-2 Years</td>
</tr>
<tr>
<td>LG</td>
<td>36</td>
</tr>
<tr>
<td>Videocon</td>
<td>16</td>
</tr>
<tr>
<td>BPL</td>
<td>7</td>
</tr>
<tr>
<td>Onida</td>
<td>10</td>
</tr>
<tr>
<td>Samsung</td>
<td>10</td>
</tr>
<tr>
<td>Akai</td>
<td>8</td>
</tr>
<tr>
<td>Sansui</td>
<td>5</td>
</tr>
<tr>
<td>Philips</td>
<td>6</td>
</tr>
<tr>
<td>Sony</td>
<td>1</td>
</tr>
<tr>
<td>TCL</td>
<td>-</td>
</tr>
<tr>
<td>T-series</td>
<td>-</td>
</tr>
<tr>
<td>Others</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
</tr>
</tbody>
</table>

Source: Primary survey
How Brands Made an Impact on Rural Mind
Consumer aspires for brand because they have certain aspirational image they look to. This is not their own creation but marketers’ conscious effort to position the brand in certain image that will match the desire of targeted segment in certain time frame in context of their needs, desire and expression of self concept. The following factors are discussed:

(i) Impact of Advertisement on Brand Choice
Advertisement of variety of brands were recalled by rural consumers. Hero Honda was the most recalled brand followed closely by LG. High recall brands were those brands whose possession were also high in rural Haryana. So there seemed a clear association between the brand recall and brand consumption with very high degree of coefficient of correlation $(r = 0.89)$. 

Table 3: Advertisements Remembered

<table>
<thead>
<tr>
<th>Brand</th>
<th>Recall</th>
<th>Frequency of recall</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>LG</td>
<td>150</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>Videocon</td>
<td>120</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>BPL</td>
<td>105</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Samsung</td>
<td>80</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Unid</td>
<td>76</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Godrej</td>
<td>110</td>
<td>99</td>
<td></td>
</tr>
<tr>
<td>Hitachi</td>
<td>60</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Sony</td>
<td>20</td>
<td>05</td>
<td></td>
</tr>
<tr>
<td>Sanita</td>
<td>19</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Philips</td>
<td>15</td>
<td>09</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary survey

(ii) Importance of Brand Among Other Factors Affecting Purchase Decisions
Rural consumers often are said to be price sensitive and least brand conscious. In the present study an attempt to find out the relative importance of various factors that affected their purchase decision is made. Respondents were asked to rank the factor influenced them most in their present decision. The results were interesting and revealing. Brand was the most important factor that consumers considered while making a purchase decision as 42.8 percent of the respondents had given it the first rank among various factors (Table 4). Reference group came out to be, though a bit, surprisingly second important factor that had its bearing on consumers’ purchasing decisions.

Table 4: Importance of Factors Affecting Purchase Decisions

<table>
<thead>
<tr>
<th>Factors</th>
<th>Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank1</td>
</tr>
<tr>
<td>Brand</td>
<td>199(42.8)</td>
</tr>
<tr>
<td>Price</td>
<td>96(20.6)</td>
</tr>
<tr>
<td>Reference</td>
<td>119(25.6)</td>
</tr>
<tr>
<td>Shopkeeper’s suggestions</td>
<td>31(6.7)</td>
</tr>
<tr>
<td>Others</td>
<td>14(3)</td>
</tr>
</tbody>
</table>

Source: Primary survey
Note: Figure in parentheses denotes percentages.

Quite sizeable number of respondents had given it first, second and third ranks. It clearly indicated the strong social bondage of rural people and calls upon marketers to give it a special attention in designing their communication and promotional strategies. Price came out to be the third most important factor. However, low on score in comparison with other factors, yet shopkeepers did influence consumer’s purchase preferences and in no way marketers should overlook it. All other factors like various promotional
schemes, price cut, finance facility, gifts etc. taken together seemed to carry very little impact on consumer's preference.

(iii) Importance of Factors Affecting Purchase Decision Across Demographic Variables

(a) Education: As has been discussed that brand was the biggest factor that was affecting the purchase decisions, and its impact had a certain association with the level of education (Table 5).

Table 5: Importance of Factors Affecting Purchase Decision Across Levels of Education

<table>
<thead>
<tr>
<th>Education</th>
<th>Brand as a factor</th>
<th>Prices as a factor</th>
<th>Reference as a factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank 1</td>
<td>Rank 2</td>
<td>Rank 3</td>
</tr>
<tr>
<td>Illiterate</td>
<td>5.9%</td>
<td>17.6%</td>
<td>76.5%</td>
</tr>
<tr>
<td>Upto metric</td>
<td>101</td>
<td>55</td>
<td>103</td>
</tr>
<tr>
<td>Matriculate</td>
<td>39.0%</td>
<td>21.2%</td>
<td>39.8%</td>
</tr>
<tr>
<td>10+2</td>
<td>37</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td>Graduation</td>
<td>58.7%</td>
<td>34.9%</td>
<td>6.3%</td>
</tr>
<tr>
<td>PG</td>
<td>64.7%</td>
<td>25.0%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Total</td>
<td>44.4%</td>
<td>25.6%</td>
<td>29.7%</td>
</tr>
</tbody>
</table>

Consideration of brand increased with the increase in level of education as only 5.9 percent of illiterates ranked it number one. In case of matriculates, it went up to 39 percent, 58.7 percent for 10+2 and 64.7 for graduates. It fell a little for postgraduates however; they ranked it second in substantial numbers. Overall, it can be concluded that the impact of brand was more in higher educated respondents and that of reference group on less educated and chi-square test also established the association between these as significant. However, price as a factor was independent of level of education.

(b) Income: The brand was seen as an important factor in all the income groups but its impact was more apparent in higher income groups and with the rise in the levels of income the proportion of respondents giving it first and second rank was also increasing (Table 6).

Table 6: Importance of Factors Affecting Purchase Decisions Across Income Groups

<table>
<thead>
<tr>
<th>Income (1000)</th>
<th>Brand as a factor</th>
<th>Prices as a factor</th>
<th>Reference as a factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank 1</td>
<td>Rank 2</td>
<td>Rank 3</td>
</tr>
<tr>
<td>Equal to 95</td>
<td>30.92</td>
<td>24.79</td>
<td>45.34</td>
</tr>
<tr>
<td>95’-150’</td>
<td>41.85</td>
<td>25.05</td>
<td>33.10</td>
</tr>
<tr>
<td>150’-250’</td>
<td>41.85</td>
<td>25.05</td>
<td>33.10</td>
</tr>
<tr>
<td>&gt;250’</td>
<td>55.73</td>
<td>28.27</td>
<td>16.00</td>
</tr>
<tr>
<td>Total</td>
<td>44.72</td>
<td>25.61</td>
<td>29.77</td>
</tr>
</tbody>
</table>

Consideration of brand increased with the increase in level of education as only 5.9 percent of illiterates ranked it number one. In case of matriculates, it went up to 39 percent, 58.7 percent for 10+2 and 64.7 for graduates. It fell a little for postgraduates however; they ranked it second in substantial numbers. Overall, it can be concluded that the impact of brand was more in higher educated respondents and that of reference group on less educated and chi-square test also established the association between these as significant. However, price as a factor was independent of level of education.

(b) Income: The brand was seen as an important factor in all the income groups but its impact was more apparent in higher income groups and with the rise in the levels of income the proportion of respondents giving it first and second rank was also increasing (Table 6).
On the other hand, price impact was falling with the rise in income level. Impact of reference group on decision-making was seen independent of levels of income but sizeable proportion of respondents in all income groups gave it substantial weight. So it can be concluded that preference for brands was seen increasing with the income going up and concern for price going the other way round.

(c) Occupation: Table 7: Importance of Factors Affecting Purchase Decision Across Occupations

Looking more carefully, it can be observed that agriculturists were a little less brand conscious in comparison as less proportion of them had given it first and second rank. In case of price, servicemen were most sensitive toward it followed by others. Agriculturists and businessmen were comparatively less price sensitive. Reference group was given a bit extra weight by businessmen with 33.8 percent of them giving it first rank otherwise it was independent of type occupation. Chi-square test approves of an association of occupation with brand and price.

(d) Age: Age did determine the way these factors affect the purchase decisions (Table 8). Though a bit surprisingly aged respondents were found to be more brand conscious.

Table 8: Importance of Factors Affecting Purchase Decision Across the Age Groups
The proportion of respondents giving brand the first rank was increasing with increasing age except for the age group of above 50yrs. In the case of price, the trend was a bit reverse as younger ones were comparatively more price sensitive as more proportion of respondents in age group of 20-30 and 30-40yrs gave it the first rank. Need for reference group was decreasing with the age and the proportion of respondents giving it first rank was falling with the age except for eldest age group which perhaps needed more support from peer groups and others while making decisions.

4.4 Glimpse of the Future

In the following analysis, the impact of socio-economic indicators on the brands choice of CTV has been measured using multinomial logic analysis. For the purpose, the brands were divided into three categories- premium brands, middle level brands, and low ranked brands. Brands like LG, Sony, Samsung were put in premium brands, and, Videocon, BPL, Onida were put in middle brands, and, rest all brands were put in low ranked brands. Then these were regressed on socio-economic indicators like education, income, and caste. Table 9 presents the measures.

| Table 9: Estimates of Multinomial Logistic Regression Analysis For CTV Brands |
|---|---|---|---|---|
| Equation | Dependent variable | Intercept | Ed | Income | Caste | \( \chi^2 \) |
| eq.1 | Premium/low | -0.966 | 0.196 | 0.955 | 0.150 | 0.001 |
| eq.2 | Medium/low | -1.010 | 0.040 | 0.001 | 0.550 | 0.001 |
| eq.3 | Low | 0.0245 | 0.045 | 0.001 | 0.067 | 0.001 |

Source: Primary survey

From Table 9 we have regressed CTV brand users on the education, caste, and income. From the estimated results, it was found that income had significant influence on the selection of premium brands in relation to the lower brands. It shows that with increase of income level by one step, the probability of consumers’ shifting to the premium brands increases by more than double. Education and caste had insignificant impact on the selection of premium brands in relation to lower brands.

In selection of medium brands in relation to lower brands, income again had significant impact on the brand choice, as with rise in income the consumers shift to middle level brand from lower brand at more than double the rate. As the consumer moves to lower caste then the possibility of selecting the medium brand decreases by 27 percent in relation to lower brand, which however is statistically insignificant at 5% level of confidence.

(4. E) Marketing Implications

- Income was found to be the biggest factor that was affecting the product possession and brand choice. Thus, it forms the most important basis for market segmentation for rural markets. Different marketing mix and strategies were required for different income groups. Higher income groups were looking for more variety and higher-end brands. Whereas, lower income respondents were looking forward to established brands, which can offer them, sense of security on quality grounds. They were more concerned with utility and value for money but not at the cost of unknown brands or anything.
- The next most influential factor that was guiding consumption decisions and behaviour was Level of education. It may form the basis of segmentation for many product categories. The higher educated respondents were more interested in MNC brands and variety products. Since education level was all set to go up, thereby indicating rise in consumption of modern durables and cosmetic products with variety products and brands.
- In certain products, occupation was also affecting the product and brand choice and other decisions so may be considered as basis for segmentation in case of durables. Service class had a substantially different consumer behavioural pattern and calls for special attention if not a segment altogether.
- Brand was the most important factor that was affecting the consumer decision in case of TVs followed by reference, mainly of friends and relatives. Brand image is the most important factor that marketers need to give special attention, first by designing
proper communication strategies and reach, followed by product quality. Reference was another important factor as ruralites are a closely-knit society. Therefore, marketers need to build long lasting and continuous relationships with them.

• Indian corporations need to wake up and look as to why the respondents were shifting from local brands to national brands and national brands to multinational brands for the durables under study. Indian companies like Videocon, Onida and BPL etc were slowly loosing out to MNCs like LG, Samsung and others in recent years. They despite being foreigners were able to understand hinterlands of India better. Will Indian corporations wake up!

• Since majority purchase of durables had been initiated in recent past and more specifically in last six years only and if trend and economic outlook is to stand by, then, the real boost in demand of such things is on anvil.

• Apart from a big market for the goods under reference, the market is looking up to the products that includes high-end sophisticated products like laptops, cars, air conditioners, computers, etc to utility products like washing machines, two-wheelers, refrigerators etc. The initiators in these markets are likely to be the real gainers as ruralites of Haryana once convinced of product utility and brand image then they go for it in big way and large numbers.

CONCLUSION

Summing up the findings it can be said that rural Haryana is in growing stage and all set to grow further as nearly 70 percent respondents were planning to buy consumer durable products in near future. Changing socio-economic environment was greatly affecting the ruralites and marketer’s influence was clearly observable in terms of changing consumption pattern, which was reflecting in products and brand choices of ruralites. Income is biggest influence on the purchase decisions and consumption pattern. With each step up in income level, the consumption was seen going up substantially. Education was another important factor whose impact was clearly observed. So marketers need to plan up the right kind of strategies for such a lucrative and huge market. Such sensitive market can and must not be left to strategies that worked for other market and it needs tailor made strategies.

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KNOWLEDGE MANAGEMENT : A STRATEGIC WEAPON FOR INDIAN CORPORATES

Sunita Bharatwal* and Shalina Oberoi**

The biggest challenge for modern system is changing the mindset from ‘knowledge is power’ to ‘knowledge sharing is even more powerful’. Knowledge creation, application and its dissemination are considered to be the prime activities in the competitive times in almost every field. The present paper comprises of pondering over knowledge-management and how it relates directly to the effectiveness of the business activities in order to gain competitive advantage. The managed knowledge enables the members of the organization to deal with today's situation and effectively envision and create their future. Society is increasingly dependent on knowledge-management and life long learning. Influence or cognitive aspects of knowledge-management is that it not only improves the quality of decisions but also brings a healthy competition and highly creative environment. The paper comprises of the concept and the detailed process of knowledge-management. It ends up with a focus on the useful mantras of becoming an effective knowledge-management company accepting successfully the modern corporate challenges.

I. INTRODUCTION

The power which ruled the world, in pre-vedic civilisation, was reflected in the form of muscle power, in form of military power in medieval period and as of economic power in twentieth century. In twenty first century, the same has now taken a different form as knowledge power. Knowledge creation, knowledge application and knowledge dissemination, are considered to be the prime activities in modern society in almost every field. The value of Knowledge Management (KM) relates directly to the effectiveness, with which the managed knowledge enables the members of the organization to deal with today’s situations and effectively envision and create their future (Web).

Knowledge management comprises a range of practices used in an organisation to identify, create, represent, distribute and enable adoption of insights and experiences. Such insights and experiences comprise knowledge, either embodied in individuals or embedded in organisational processes or practice. It is a holistic philosophy that drives organisations to optimize the utilization of their knowledge resources. An established discipline since 1995, KM includes courses taught in the fields of business administration, information systems, management, and library and information sciences (Web). Knowledge management efforts have a long history, to include on-the-job discussions, formal apprenticeship, discussion forums, corporate libraries, professional training and mentoring programs (Web).

2. NEED OF KNOWLEDGE MANAGEMENT IN INDIAN

* Assistant Professor, Department of Management Studies, Technological Institute of Textile & Sciences (TIT & S), Bhiwani.
** Assistant Professor, Department of Management Studies, Technological Institute of Textile & Sciences (TIT & S), Bhiwani.
CORPORATES
Ann Macintosh (1999) identifies some of the specific business factors which necessitates the need of Knowledge Management viz. competitive marketplaces, higher rate of innovation, downsizing, trends for employees to retire earlier and for increasing mobility and need to manage increasing complexity as small operating companies are trans-national sourcing operations. In addition to these, most of the work today is information based, Inter-industry competition as well as offerings (whether of product or services) are mostly knowledge based now. In nutshell, we can formulate that knowledge and information which has become the medium in which business problems occur. As a result, managing knowledge represents the primary opportunity for achieving substantial savings, significant improvements in human performance, and competitive advantage.

There are numerous invaluable benefits of adopting a knowledge management strategy and thus have great implications both in short as well as in long run. The correct and timely use of knowledge management techniques can make a company more agile and thus enable it to respond to changes in the industry. The sharing of knowledge amongst the knowledge workers not only increases the performances but also reduces the amount of training required for new employees. The implantation of knowledge assets in the company's information technology infrastructure maximises return on investment, both in equipment and personnel. All of these factors greatly contribute to make the businesses more competitive and profitable.

3. PROCESS OF KNOWLEDGE MANAGEMENT
A knowledge management process compiles a variety of innovative ideas, processes and the techniques which are diverse and having different applications for different purposes. The technological evolution is the resultant of the changed mindset of the people. Also knowledge itself further changes the attitudes of people which trigger a change process in turn. It involves the following steps mainly:
   a) Appointment of the knowledge leader.
   b) Companies set knowledge centres for the two way flow of the useful information.
   c) Formation of the intellectual capital teams to identify and audit the intangible assets.
   d) Focus is imparted upon the development of knowledge based best practices, expert directives, market intelligence, etc.
   e) Companies develop and master the collaborative technologies such as the intranets, web networks, etc. for exchange of the information and their respective proceedings.
   f) Capturing and reusing the structured knowledge.
   g) Capturing and sharing the experiences of the usage of the knowledge.
   h) Identifying the sources and networks of experience.
   i) Structuring and mapping Knowledge needed to enhance performance.

Both the internal as well the external sources are a must to be considered for development of this knowledge bank. The organisation must systematically study the economic value of its assets in terms of utility and applicability of them in social development and commercialization. If the organisation is unable to apply its knowledge bases it should pass this to external agencies and other organisations which may require it.

4. CHALLENGES AND CONCLUSIONS
The biggest challenge confronting Indian corporates is how to change the mindset of the people and changing paradigm from believing that knowledge is power to believing that knowledge sharing is power (Web). This dramatic change necessitates constant training and development of human resources of the organisation in all spheres. Knowledge management thus demands a community with knowledge seeking and knowledge sharing attitude. Creating and nurturing such community within the structural limitations of organisation requires restructuring an organisation, particularly its norms, value, beliefs, and structural variables. The immediate benefits of knowledge management can be seen in the decision support systems, the enterprise and the quality of the decisions taken by the staff. As knowledge management ensures availability of the knowledge rather than information, the decision quality undergoes a radical change. The result is a highly competitive and creative environment in the organisation. The next visible change is the openness of the work culture.

We are in a knowledge economy where continuous innovation is the key to sustainable competitive advantage. Though people rate new knowledge creation quite important for their organization but their attitude towards new knowledge creation is not
encouraging. In this competitive and fast-technology-changes time an organization needs to go for a number of ways for new knowledge creation (2005).

Knowledge management means creating more appropriate technologies, more accurate and timely information base and more competent and confident human resources. Knowledge management is reflected in the capability of the organisation in giving organisation a distinct image in the industry as a hub of information and new innovations. Thus knowledge managements is the assimilation, formatted retention, and reuse of the foundation to impart an understanding of how all these subparts fit together and convey a meaningful frame to some other person. The basic but open mantras for the company to become an effective knowledge management company are: commitment, establishment of clear values, vision, knowledge architecture, creating a learning culture, systematic knowledge processes appropriate legal framework etc. And it’s the perfect time for Indian corporates for embracing this new mantra.

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AN ANALYTICAL STUDY ON PROBLEMS OF RURAL COOPERATIVE CREDIT IN INDIA

Major Singh* and Ramesh Lal**

Rural Cooperative Banking and Credit Institutions play an important role in meeting the growing credit needs of rural India. Cooperatives are based on the principles of autonomy and independence. The cooperative banks like Primary Agriculture Credit Societies (PACS) are working in the country to meet the demand of short term and medium term credit. But the rural credit cooperatives in the country are in an impaired state at present. Strengthening financial resources base of the various cooperative credit institutions and enterprises is definitely a priority area for working out a competitive edge for cooperatives in the field of short term and medium term credit system. Despite the phenomenal outreach and volume of operations, the health of a very large proportion of these rural credit cooperatives has deteriorated alarmingly. Several factors have led to the impairment of the cooperative credit structure in the country. Present article is an attempt to understand the underlying reasons for the impairment of cooperative credit institutions in the country.

INTRODUCTION

Rural Cooperative Credit Institutions have played a great role in providing institutional credit to agriculture and rural sector in the past. Typically, these cooperative credit institutions have been the part of two distinct structures, commonly known as Short Term Cooperative Credit Structure (STCCS) and, long term cooperative credit structure (LTCCS). The STCCS, comprising Primary Agriculture Credit Societies (PACS) at the village level, District Central Cooperative Banks (DCCBs) at district level and the State Cooperative Bank (SCB) at the Apex level, primarily, provides short terms (ST) loans, although over the last few years this structure is also providing longer duration loans in the rural sector. The LTCCS, comprising State Cooperative Agriculture and Rural Development Bank (SCARDB) at state level and Primary Cooperative Agriculture Rural Development Banks (PCARDBs) at district or block level, have been providing medium term (MT) and long term (LT) loans in agriculture and rural industry sector.

By March 2009, PACS functioning in the country covered around six lakhs villages with a total membership of around 13.2 million. This wide penetration of PACS across villages as well as across small depositors/borrowers would act like a catalyst while pursuing the objective of 100 per cent financial inclusion. However, the share of cooperative credit institutions of India has fallen from 62 per cent in 1992-93 to 24 per cent in 2005-06. This 38 percent decrease in share of cooperative inflow of rural credit in India among other factors in largely because of poor recoveries and high cost loan advancement in comparison with commercial and regional rural banks.

REVIEW OF LITERATURE

Kumar (1993) suggested that the role of cooperative sector banks in agricultural financing has to be revived and revitalized to make the rural credit delivery system stronger to meet the increased challenges. Gurumoorthy (1995) suggested that members should be motivated and guided properly not only to utilize the benefits of the cooperative society but also to make the societies financially viable by repaying the loan in time.

Pathania (1997) suggested that persons possessing cooperative attitude, adequate skills and knowledge should be recruited in cooperative institutions to improve the cooperative movement.

Gill (2000) suggested that easing of regulations or introducing financial liberalization will not cause the informal sector disappear. What is needed is adopting some of the features of the informal sector, and then offering it for competition.

Prasuna (2001) identified the problems of cooperative bank and highlighted that inadequate entry norms, absence of compliance to prudential norms of banking, lack of professional management, politicization of management, absence of proper supervision mechanism were the factors responsible for the poor performance.

It is, therefore, paramount to identify these problems and to take necessary steps to overcome.
these problems so that the future of cooperative sector can be made better. Here, in this context, the present study was conducted to know the real problems of borrowers and bankers of rural cooperative credit structure.

OBJECTIVE OF THE STUDY
1. To study the problems encountered by the borrowers as well as bankers in connection with cooperative credit.
2. To know which categories of the borrowers/bankers have faced problems more while dealing with cooperative credit institutions.
3. To offer suggestions to overcome these problems.

RESEARCH METHODOLOGY
The present study is confined to the state of Haryana. To cover the wide range of population spread all over the state ‘Multi-stage Stratified Random Sampling Technique’ has been adopted. To begin with, the state was stratified into four homogenous agro-climatic zones, designated as I, II, III & IV, each zone comprising 4 to 6 districts. At the first stage One district from each zone (stratum) was selected. Then two blocks from each district were selected. At stage III two villages from each block were selected. To select the ultimate units, i.e., the borrower households of co-operative credit institution, ‘Purposive Sampling Technique’ was adopted and only those borrowers were approached who were ready to impart the necessary information. In order to make the sample analytical, more purposeful and representative of rural community in Haryana, the borrowers were grouped into three categories as follows: big farmers (BF): owning holding land above 7 acres, small farmers (SF): holding land up to 7 acres and non-agriculturists (NA): not holding land/landless. Then from each category, 5 borrowers were selected purposively from each of the 16 villages. Thus, the study is confined to 240 borrowers– 80 big farmers, 80 small farmers and 80 non-agriculturists. Table1 is a schematic presentation of the above discussed sampling technique.

Table 1: Sample Profile

<table>
<thead>
<tr>
<th>Stratum (Zone)</th>
<th>Sample random Primary units</th>
<th>Purposive sample Ultimate sample</th>
<th>borrower households</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>District</td>
<td>Block</td>
<td>Village</td>
</tr>
<tr>
<td>I</td>
<td>Kurukshetra</td>
<td>Thanesar</td>
<td>Lukhi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Balahi</td>
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<td>Pehowa</td>
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<td>Surmi</td>
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<td></td>
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<td>Tikri</td>
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<tr>
<td>II</td>
<td>Jind</td>
<td>Narwana</td>
<td>Dharodi</td>
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<td></td>
<td>Dumar Khan</td>
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<td>Uchana</td>
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<td>Baroda</td>
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<td></td>
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<td></td>
<td>Ghogaria</td>
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<tr>
<td>III</td>
<td>Hisar</td>
<td>Barwala</td>
<td>Sarsod</td>
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<td></td>
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<td>Juglan</td>
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<td>Uklana</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Budhakhera</td>
</tr>
<tr>
<td>IV</td>
<td>Gurgaon</td>
<td>Sohna</td>
<td>Teekli</td>
</tr>
<tr>
<td></td>
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<td>Badshapur</td>
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<td>Foruknagar</td>
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<td>Khera Khurmpur</td>
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<td></td>
<td>Mubarikpur</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
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</tbody>
</table>
In addition to this, a sample study of bank managers/secretaries, was conducted but their number being small, the officials of other co-operative banks were also included in the sample so as to make it more representative. In all 60 top officials representing 35 and 25 from PACS and PARDBs, respectively, were interviewed. Both borrowers and bankers were interviewed through separate set of questionnaire to ascertain the real problems of co-operative credit.

Each set of questionnaire containing 9 problems faced by the borrowers and bank officials separately were given to the respondents, to make order of merit of those problems. But in practice, some of the responses were incomplete because of some specific reasons, i.e., difficulty in collecting record from block officer/Patwari by which non-agriculturists were not affected and they cannot assign any rank to that problem. Transmuted Rank Score Technique was used to tackle this type of the problem. It is such type of statistical technique, which helps to assign ranks to complete or incomplete responses to its mean score value. The attribute having highest mean score value obtains first rank: 2nd highest second rank, and so on.

For this, first of all, percent position of each rank has been calculated by using the formula:

\[ \text{Percent position} = \frac{100(R - 0.5)}{N} \]

Where, 'R' is for rank position (i.e., 1, 2, 3...) and N is total number of ranks given by respondents to the attributes. A reference is then made to statistical table known as The Transmutation of Orders of Merit into Units of Amount or 'Scores' to find out the transmuted scores, the total transmuted scores for each attributed ascertained is known as the sum of the scores. And to find out the mean of scores the sum of scores has been divided by the number of responses given by respondents to each attribute.

To know the correlation between the ranks given by the top officials of long term cooperative credit structure and short term cooperative credit structure, to the problems faced by them, Spearman’s rank coefficient of correlation method has been used, which is determined as under:

\[ r_s = 1 - \frac{6 \sum D^2}{N^3 - N} \]

Where

- \( r_s \) = Rank coefficient of correlation.
- D = Difference between the ranks of pairs.
- N = Number of pair of observation.

Apart from these, Chi-square test has been applied to examine the differences between the number of borrowers (Zone/Category-wise) on account of different variables.

The Chi-square (\( \chi^2 \)) value has been calculated as under:

\[ \chi^2 = \frac{\sum (O - E)^2}{E} \]

Where:

- O = Observed Frequency.
- E = Expected Frequency.

\( \chi^2 \) value is based on \((c-1)(r-1)\) degree of freedom, where 'c' refers to columns and 'r' refers to rows.

**ANALYSIS**

We now proceed to analyze the survey data. First, we identify the problems encountered by the bank officials and then the borrowers.

**A) Problems Encountered by Bank Officials in Rural Lending**

At present, both LT structure and ST structure of cooperative credit are facing several problems in the distribution of loans to rural areas. The mean score and ranks of various related problems as given by the top officials of both LT and ST structure are listed in Table 2.

<table>
<thead>
<tr>
<th>St. No.</th>
<th>Problems</th>
<th>Mean score</th>
<th>Rank</th>
<th>Mean score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Complicated loan procedure</td>
<td>55.826</td>
<td>3</td>
<td>58.917</td>
<td>3</td>
</tr>
<tr>
<td>ii)</td>
<td>Difficulty in collecting record from block officer/Patwari</td>
<td>48.174</td>
<td>5</td>
<td>48.889</td>
<td>5</td>
</tr>
<tr>
<td>iii)</td>
<td>Delay in repayment of old debts</td>
<td>55.346</td>
<td>2</td>
<td>59.034</td>
<td>2</td>
</tr>
<tr>
<td>iv)</td>
<td>Inadequacy of the field staff</td>
<td>46.429</td>
<td>7</td>
<td>48.446</td>
<td>6</td>
</tr>
<tr>
<td>v)</td>
<td>Insufficient security/safety</td>
<td>53.130</td>
<td>4</td>
<td>53.000</td>
<td>4</td>
</tr>
<tr>
<td>vi)</td>
<td>Resistance by borrowers to borrow</td>
<td>36.340</td>
<td>9</td>
<td>26.900</td>
<td>9</td>
</tr>
<tr>
<td>vii)</td>
<td>Competition with other banks</td>
<td>61.600</td>
<td>1</td>
<td>60.625</td>
<td>1</td>
</tr>
<tr>
<td>viii)</td>
<td>Lack of secrecy</td>
<td>40.625</td>
<td>8</td>
<td>40.533</td>
<td>7</td>
</tr>
<tr>
<td>ix)</td>
<td>Any other</td>
<td>45.714</td>
<td>6</td>
<td>36.000</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Field Survey

Note: (i) Spearman’s Rank Correlation Co-efficient \( r = .950 \).
This table shows that the calculated value of Spearman’s rank correlation co-efficient ($r_s$) is .950 between the opinions of top officials of the LT structure and ST structure about the problems they encountered while lending to rural areas. Hence it is evident that problems are almost same for LT and ST structures.

Loan sanctioning procedure of co-operative banks is very lengthy as against that in the nationalized banks and non-institutional sources of finance, i.e., money lenders, commission agents, friends/relatives etc. The bank officials assigned third rank to this problem. The officials also agreed with the general complaint of the farmers that the collection of revenue record from patwari is not an easy job and they assigned this problem 5th rank. They harass the farmers and compel them to visit again and again in their office. Finally, farmers have to grease the palms of so many concerned persons for obtaining the record.

It is further revealed that the problem of delay in repayment of old debts/overdues is the major problem for both LT and ST structures of co-operative credit in Haryana. Restraining the flow of funds and consequently banks are unable to disburse loans to future borrowers. They also admit that the inadequacy of the field staff makes the work of co-operatives ineffective in relation to loan disbursement. Non-production of the desired security or surety is also experienced mostly in the rural area. The problem can be overcome by providing some sort of relaxation to non-agricultural and small farmers at the bank level with regard to provide security or surety. Sometimes, rural borrowers hesitate to borrow money from co-operative credit institutions because of their strict recovery procedure, lengthy sanctioning procedure, costly loan and rude behaviour of bank employees. However, this problem is the least important and is assigned ninth rank by the bank officials. At present, co-operative banks are facing competition with other banks financing rural area, i.e., nationalized banks and regional rural banks. This is a very serious and first ranking problem for cooperative banks because competitor banks are providing loan to rural borrowers at cheaper rate of interest. This problem, thus, demands greater attention on the part of government as well as that of banks. In addition, these banks lack secrecy on account of several reasons people are hesitant to make use of the facilities of these banks.

Among other problems identified by the officials are: low income of borrowers and highly political interference in advancing loans to undeserving persons. This results in less return to genuine borrowers.

### (B) Problems Faced by Borrowers in Getting Loans From Cooperative Banks

The problem has been analysed in three ways viz; zonal wise, size of holding wise and type of problem wise.

#### Table 3: Zone-wise Distribution of Respondents Facing Problems in Getting Loan From Co-op Banks

<table>
<thead>
<tr>
<th>Problem Faced</th>
<th>No. of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Zone-I</td>
</tr>
<tr>
<td>Yes</td>
<td>28 (46.7)</td>
</tr>
<tr>
<td>No</td>
<td>32 (53.3)</td>
</tr>
<tr>
<td>Total</td>
<td>60 (100)</td>
</tr>
</tbody>
</table>

Source: Field Survey.  
Chi-square = 11.913* with degree of Freedom =3  
Note: i) Figures in the parentheses are percentage to total, ii) *Value is statistically significant at 5% level.

Table 3 depicts that a majority of the borrowers (52.5%) admitted that they faced problems in getting loans. However, there are inter zonal variations, it being the highest in zone –IV and the smallest in zone III.
Category-wise comparison reveals (Table 4) that non agriculturists (58.7 %) were facing more problems, followed by small farmers (53.7 %) in this respect. In case of big farmers, only 45 per cent were facing problems. Their number is smaller due to their influence and use of political link while managing loans. However, opinions of all categories about problems they face do not differ significantly as supported by the Chi-square test. Hence, it is to be concluded that all the categories of borrowers have encountered almost the same problems while getting loan from co-operative banks.

Table 5: Problems Faced by Borrowers in Getting Loan From Co-Operative Banks

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Problems</th>
<th>Mean Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>i)</td>
<td>Lack of suitable security/surety</td>
<td>50.129</td>
<td>6</td>
</tr>
<tr>
<td>ii)</td>
<td>More complications in getting loan</td>
<td>61.289</td>
<td>2</td>
</tr>
<tr>
<td>iii)</td>
<td>Difficulty in collecting record from Block Officer/Patwari</td>
<td>63.251</td>
<td>4</td>
</tr>
<tr>
<td>iv)</td>
<td>Lack of knowledge of rules and regulations of co-op banks</td>
<td>54.259</td>
<td>8</td>
</tr>
<tr>
<td>v)</td>
<td>Non-co-operation by bank employees</td>
<td>62.128</td>
<td>1</td>
</tr>
<tr>
<td>vi)</td>
<td>Expensive process</td>
<td>60.123</td>
<td>3</td>
</tr>
<tr>
<td>vii)</td>
<td>No. Co-op institution is situated nearby</td>
<td>48.865</td>
<td>7</td>
</tr>
<tr>
<td>viii)</td>
<td>Higher rate of interest</td>
<td>51.687</td>
<td>5</td>
</tr>
<tr>
<td>ix)</td>
<td>Any other</td>
<td>40.737</td>
<td>9</td>
</tr>
</tbody>
</table>

It is observed from this table that non cooperation by bank employees, more complications in getting loan and the expensive process, respectively were assigned first, second and third ranking problems. These three problems are interrelated and bankers are responsible for these problems. The fourth rank is assigned by the borrowers to the problem of difficulties in collecting records from Block Officer/ Patwari. Generally, Patwaris do not supply revenue record timely unless they are appeased through underhand means. The fifth problem of the borrowers was high rate of interest. They felt that credit supplied by co-operative banks is too costly, when compared with nationalized banks. They argued that this is totally against co-operative principles. This high cost of credit is mainly because of inter-mediation costs, i.e., intermediaries between PACS/PARDBS and RBI/ NABARD. In this context, the second Narasimham Committee on Bank Sector Reforms (1998) urged that consideration be given to factors which act as bottlenecks in the co-operative credit system with a view to reducing the inter-mediation costs and providing the benefit of cheaper NABARD credit to the ultimate borrowers.

Most small farmers and non-agriculturists are unable to provide the desired security and surety and this was another problem. The location of co-
operative banks, lack of knowledge and regulations of co-operative are assigned seventh and eight ranks respectively.

SUGGESTIONS

Suitable training should be given to the banks staff regarding the procedure of loan sanctioning and good behavior with the customers. There is an urgent need of fair administration and of strengthening coordination between government and cooperative agencies. Farmers should be provided an up to date pass book which contains the whole revenue record of the land. More relaxation should be given to the small farmers and non agriculturists at the bank level with regard to providing security/surety.

The only solution to the problem of lack of knowledge of rules and regulation of cooperative banks is to educate the members about the procedure, principles and practices of the cooperation. The report of ICA commission (1966) states “No cooperative institution, therefore, can be indifferent in its own interest and for its own survival, to the need for educate its members in appropriate ways”. To put a check on the decreasing share of cooperatives in the institutional finance and to stop the turn over of the borrowers for the commercial banks, regional rural banks and informal sources of finance, it is necessary for the cooperative sector to adopt the features of competitors in terms of simple loan sanctioning procedure, strong financial base, trained and qualified personnel, judicious management of their funds etc.

To overcome the problem of higher rate of interest, PARDBs and PACS should be made the branches of HSARDB and DCCBs, respectively. For speedy disposal of credit application, supply of information and verification documents, etc., complete computerization of cooperative banks must be done. Option should be given to the borrower either to receive the loan in cash/in kind/or both. Even secretary of the PACS should have the power to convert maximum credit limit (MCL) of kind into cash loan and vice versa.

It was also suggested by the borrowers that the production of witness at the time of getting loan should be done once, not time and again. It should not be compulsory even in case of secured loans. And the security/surety norms should be relaxed, based on the past recovery performance of regular old borrowers. Cheque book of the farmer borrowers should be in Hindi and in easy format.

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http://www.rbi.org.in
http://www.harcobank.nic.in
INTELLECTUAL PROPERTY RIGHTS: BOON OR BANE

T.S. Tomar*

The world is transforming from a material based to a knowledge based one. Today knowledge has become a source of a nation's economic might. A nation needs a strong system of protecting and promoting its Intellectual Property Rights for sustainable economic growth. However, Indian contribution to the pool of International patents is negligible and needs to be increased substantially. There is a vast intellectual wealth in our country and this knowledge needs to be converted into wealth. The knowledge that Indian scientists and technologists have exploited so far is, in fact, just the tip of the iceberg. Simultaneously, in present global scenario, if protection of IPR is not granted to the global players, then, innovative research will lose its momentum. But then if these inventions and innovations are not made universal, vast segment of humanity will be deprived of its benefits and further progress will be immensely hampered. Of course there is more growth of knowledge in India than other countries but still the quality and pace to match with the developed world in order to win the war of IPR, the game of the time, otherwise we shall be contesting to loose the battle of knowledge.

INTRODUCTION

Intellectual Property Rights (IPRs) are intangible rights which grant an exclusive right to obviate others to freely exploit an invention or creation. Intellectual Property Rights are related to creative works that have economic value and are protected by law. Intellectual Property Rights protect the creators of most types of intellectual property by preventing others from copying, performing or distributing those works without permission. It may be mentioned that Intellectual Property (I.P.) shares many of the features associated with real and personal property. Intellectual Property is an asset which can be purchased, sold, exchanged or given to others like any other form of property. It distinguishes itself from other forms of property in that it is intangible and therefore cannot be defined or identified by its own physical parameters.

Intellectual property consists, in the main, of the industrial property, largely in respect of technological inventions, trademarks for goods and services, industrial designs and Copyright largely in literacy, musical, artistic, photographic and audio-visual works. Intellectual Property Rights (IPRs) and its application is linked with World Trade Organisation (WTO) which came into existence on January 1, 1995. However, the United Nations by a convention on July 14, 1967 had already established an agency of its own known as World Intellectual Property Organisation (WIPO). The rights owned for the commercial use of such creations are called Trade Related Intellectual Property Rights (TRIPS). However, the concept of Intellectual Property Rights, was not heard in its present description and form before December 20, 1991, when Arthur Dunkel, the Director General of the General Agreement on Tariffs and Trade (GATT) submitted a comprehensive document to the Uruguay Round of Multilateral Trade Negotiations. Gangali (2001) pointed out that the recognition and encouragement given to the inventor and creator in the form of intellectual property rights are going to play an vital role in the era of globalization and liberalization.

OBJECTIVES

The major objectives of the research paper are (i) to explain the dilemma of the developing countries including India in the compliance of TRIPs, (ii) bring out in a balanced manner the boon and bane of TRIPs, and (iii) to draw conclusion and offer suggestions to tackle the problem.

(i) Analysis

The dilemma before the Indian government and other developing economies is how to pace the changes in the patent Act to make them TRIPS compliant so that the home grown industries can continue to grow and prepare themselves to face the global competition. Another area of concern is the protection of her rich biodiversity, traditional knowledge with fair benefit sharing arrangements to communities responsible for their upkeep and development. Rao (2001) pointed out that an issue of significance is one delicate balancing act of a patents regime that would offer the inventors a safe protection platform for their inventions and simultaneously keep adequate provisions for intervention by the government to check and overuse of misuse of IPR. The point in debate is whether to retain strong and restrictive features in the IPR laws via "compulsory licensing" or introduce...
a strong and enforceable IPR regime and do the balancing act of controlling misuse or overuse of IPR via a strong competition law.

A fraction of the Indian industry especially in the pharmaceutical sector has already made rapid strides in restructuring of its business to meet global standards to steer the growth through world class research and development, striking global alliances, partnerships, collaborations, licensing etc. The next few years will be crucial for the Indian industry as changes are introduced especially as India moves towards a patent regime as required by TRIPS.

(ii) Boon or Bane

The crucial question, is whether Intellectual Property Rights in developing countries is a boon (A) for growth or bane (B) for development.

(A) IPRS Boon for Growth

In the era of liberalization, privatization and globalization (LPG), the protection of IPRs might encourage developing countries to participate more actively in International trade. Documentation of industrial property, disclosure of technological innovations could help the developing countries as economic development is becoming increasingly technology based and is being accelerated through the use of new high sophisticated technologies.

Over the past decade and a half, industrial property is acquiring increased prominence at both national and international levels. Particularly in developing countries, policy makers, industrialists, entrepreneurs and academicians are paying greater attention to the importance of effective protection of intellectual property assets. For example in India the filing of patent applications increased from 4824 in the year 1999-2000 to 28882 applications in 2006-07 (Appendix Table 1). Further, the number of patents granted has gone from 1881 to 7959. Similar trend is visible in granting trade marks (Appendix Table 2).

Developed countries having wider resources are advanced in technological know-how and are continuously creating new technology. An effective system of Intellectual Property Rights may provide a balance of interests between the creators of new technology, who have the large resources to spend for the creation and development of new technology and users of that technology for whom it is an important tool for accelerating economic and industrial development.

The technological advancement of the developed countries and to obtain the goal of technological advancement have generated the demand of extensive protection of IPR (Butter 1996). As these rights are becoming important components of the infrastructure required for economic development. They can be useful to develop national indigenous technological capacity, to generate export opportunities, to facilitate imports and foreign investment. Further, an effective IPR protection would play an important role in promoting transfer of technology and in obtaining the desired range of technical knowledge available in different parts of the world. In other words, effective protection of intellectual property might promote the availability and supply of technology and know-how to industry in developing countries. Also on the technology gap remains, number of developing countries, trailing behind in the process of development, have to draw on the storehouse of technological information, available through patent documents in the process of trying to bridge the gap between developed and developing countries.

Industrial property protection and patents information would have an important role to play in helping to promote the directions of research in industries, in business establishments, in government and in universities. The inflow as a result of protection of inventions, encourages researchers in institutions and trust is generated in the system through effective enforcement of IPRs. This may lead to a shift in the costs of generating new technologies from the government to the private sector in developing countries.

The decision-making framework of a public research institute is governed by the objective of maximizing the public good within the national IPR policy framework (Gianakas 2008). The issues, challenges and options facing a public research institute are therefore different from a public policy maker. Public researchers and managers’ decisions about IPR will be innovative-specific and governed by the relationship they envisaged with other public and private research institutes in the development, commercialization and dissemination.

Developing countries tolerate the widespread sale of counterfeit versions of intellectual property products. Gianakas (2003) pointed out that violation of intellectual property rights cost the owners of the rights in form of lost royalties and sales in markets dominated by counterfeit products. In an attempt to reverse this situation, most nations of the world signed the agreement on TRIPS in 1994. The United States has also attempted to negotiate direct agreements with countries such as China, where counterfeiting has been particularly extensive.

Liberalization and globalization have dramatically
altered perceptions about science and its practice in India. The unabashed drive to patent and protect every conceivable scientific advance, no matter how incremental, has now reached a ridiculous level in the West (Helpman 1993). American and multinational companies never known for moderation and thoughtfulness, when commercial interests are involved, have set out to fence vast areas of science under the guise of protecting intellectual property. The attempt to patent turmeric uses and basmati rice illustrates that the IPR protection area can turn into an expensive theater of the absurd. Unlike land or other forms of tangible property, knowledge is not depleted by use. On the contrary, books, software programs and medical procedures lose their value and utility when they are not used. The development of new knowledge often requires a significant initial investment of capital, and of course those costly efforts merit recompense (Mishra 1999). But unlike traditional assets, once a new piece of knowledge exists, it incurs virtually no marginal costs from its ongoing use and dissemination. Mywish (2001) found that the world of IPR and commercialization of scientific success is largely one-sided and Western-dominated at present. There has been some pressure to ensure that inputs into science are transformed into useful products in India.

Scientists, particularly those in national laboratories are being encouraged to patent before they publish. The fact is that most patents lie unread and unlicensed and usually conveniently forgotten, the triumphantly trotted out lists of patents often only document assets, whose value is purely notional. Chaudhary (2005) found that a large number of patents which are filed do not even have a chance of attracting a potential licensee, they are like the many papers in the literature, which lie buried, unread by anyone. Patents have also become a device by which considerable amounts of irrelevant work are masked under a camouflage of potential utility.

While there is no denying that Copyright laws do encourage creativity by ensuring assured returns to the researchers, it is also true that in the current scenario, as in all other areas of globalization, the dice is heavily loaded in favour of the rich and powerful. Dahiya (2006) observed that we have evidence to prove that the big corporations refining oil or producing commonly used plastics are carrying on their billion dollar businesses only because patents for better and ecologically safer substituted have been acquired and kept in steel vaults and safe deposits.

In the fields of drug manufacture, India apprehended that the patentee firms will increase the prices (Fink et al 2005). Our law protects only the process and not the product. In International Conventions you expect only that projections from others which you give in your country. In developed countries they protect process and product both therefore, in terms of TRIPS agreement India cannot produce the drugs by other process. This will place Indian companies in bad position and only foreign multi-nationals will occupy the market. In the field of agriculture, the farmers would be loaded with the burden of paying royalties on improved seeds. Indian traditional knowledge of medicine is also threatened by the Patent law as recommended by the International Conventions. Age-old knowledge and processes in use are not patented. If these are patented then we will have to pay royalty for own alternative medicines. We have to wake up and protect our old system and collect evidence to prove our case in international courts. (GOI 2005).

(B) IPRs Bane for Development
Access to technology by developing countries would be available through licenses and technology transfer agreements (Grover 2005). However, the factual position is that the prospective technology seekers in developing countries have to face great difficulties in their dealings with technology holders in the developed countries. Some difficulties arise due to governmental practices, both legislative and administrative in both developed and developing countries, which influence the implementation of national policies and procedures designed to encourage the flow of technology to and its acquisition by developing countries (Sumanjeet 2006).

Though the TRIPS agreement calls for technology transfer to the least developed countries, yet the gap in the advancement of technology in the developed countries and that of developing countries is not decreasing fairly (Takenakla 2000). However, stronger implementation of IPRs may also enhance the acquisition costs of technology for developing countries as well as the least developed countries.

Inclusion of agriculture sector under the scope of TRIPS agreement would be highly disadvantageous for the farmers of the developing countries where agriculture is not only undeveloped but also lacks provisions for scientific research. The apprehensions is that once agricultural sector is opened to competition and patenting is granted, most of the benefits would accrue to the developed countries and MNCs operating from these countries. Among such benefits which are
likely to be withdrawn outright from the ‘farmers privilege’ which includes own seed supply. Once the seeds are patented, use of uncertified seeds will be liable for punishment. This would amount to snatching the right of farmers and imposing on them compulsory acceptance of a patented brand. This would increase the prices of seeds many times thereby threatening the food security of developing countries.

CONCLUSION
Twenty first century is going to be a century of technological advancement. The development of country would be measured by the advancement of its technological standards. A perfect state of Intellectual Property Rights would create a balance between private incentives of innovators and the public interest of maximizing access to the fruits of innovation. Intellectual Property Rights are to be harmonised globally. With the global trend in private sector research and development (R&D), application of biotechnology, and the use and protection of intellectual property in agriculture, agricultural scientists and research managers in public institutes are facing complex questions and micro-level management decisions about the use and protection of IP.

Though the importance of IPRs with the technological advancement is increasing day by day but these laws to the much extent have been overshadowed by the conflict between developing and developed countries which needs to be resolved through amicable ways at earliest so that the fruits of these laws is not lost and the economic development of nations and world trade is not affected.

SUGGESTIONS
The clause in the Act to limit the scope of patentability is extremely ambiguous and full of technical loopholes, which allows for engineering. The act further fails to provide the safeguard available with article 44 of TRIPs, which effectively allows the member state to limit remedies to remuneration that would available to patent holder where third parties are authorized by the government, without the authorization of the right holder, to use the patented goods rather than issue an injunction. A serious rethinking is also needed the manner in which the patent system ends up granting patents on what may be termed as minor innovation. The most persuasive justification for so doing is the growing concern about access to medicines at affordable prices, particularly in the developing countries. India have taken the lead in this regard by making appropriate changes in its Patents Act, which would have given strong signals that it is keen to prevent the grant of patents on products that should have been generic. The amended act is likely to create an immense pressure on the Indian Patent Office as there will not be enough examiners (the new rules provide a period of one month for the examination report to be issued following the application, this was previously 18 months) to deal with the flood of applications which is likely to occur; thus resulting in improperly examined and legally invalid patents. There is strong need to make Indian industry more aware of patents and the impact of new regulation. In fact, awareness is needed among the various stakeholders. IPR can be made a compulsory subject in colleges, law courses and in universities. In short, India will have to invest liberally to enhance skills and knowledge base of scientists through structured in-house and external professional training programme.

Simultaneously, in present global scenario, if protection of IPR is not given to the global players, then, innovative research will lose its momentum but if these inventions and innovations are not made universal, vast segment of humanity will be deprived of its benefits and further progress will be immensely hampered. Of course there is more growth of knowledge in India than other countries but still the quality and pace to match with the developed world in order to win the war of IPR, the game of the time, otherwise we shall be contesting to loose the battle of knowledge. Therefore it is suggested that first of all, India needs a vibrant and calibrated sector specific policy of IPR to meet the challenges of globalisation, privatisation and liberalisation (LPG). Secondly, improvement in quality, cost reduction, simplification of procedure of protection of IPR are the need of the hour. Thirdly, India should join some of the IPR trade groupings like ASEAN or should form its own SAARC common IPR group. Fourthly, India should go for more patents in the world trade. Fifthly, tariff structure must be rationalized for realising of full potential of IPR and service industry in the country and finally, there is a need to be cautious at various WTO Conferences.

REFERENCES
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Fink, C. and Maskus K. (2005), Intellectual Property and


Ramappa, T. (2000), IPR Under WTO- Tasks before India, First,

New Delhi, Wheeler Publishing.


APPENDIX – I

Table 1: Progress of Patents Under IPR in India

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
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<td>10592</td>
<td>11466</td>
<td>12613</td>
<td>17466</td>
<td>24415</td>
<td>28882</td>
</tr>
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<td>4264</td>
<td>5104</td>
<td>9528</td>
<td>10709</td>
<td>14813</td>
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<tr>
<td>Patents Granted</td>
<td>1881</td>
<td>1318</td>
<td>1591</td>
<td>1379</td>
<td>2469</td>
<td>1911</td>
<td>4520</td>
<td>7959</td>
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Table 2: Progress of Trademarks Under IPR in India

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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<td>70115</td>
<td>159738</td>
<td>240003</td>
<td>89958</td>
<td>711091</td>
<td>79200</td>
<td>58185</td>
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<td>Patents Granted</td>
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<td>14202</td>
<td>6204</td>
<td>11190</td>
<td>39762</td>
<td>45015</td>
<td>184825</td>
<td>109361</td>
</tr>
</tbody>
</table>
ANALYSIS OF OPERATING PERFORMANCE OF A SPECIALISED FINANCIAL INSTITUTION: A STUDY OF TOURISM FINANCE CORPORATION OF INDIA LIMITED

Amit Joshi*

The present investigation is an analysis of operating performance of a specialised financial institution i.e. Tourism Finance Corporation of India Ltd. that came into existence to promote tourism in India. The main concern of the study is to find answers to the very vital questions in respect of TFCI such as (i) To analyse and evaluate the role of TFCI in promoting direct employment, investment and hotel industry in the country during the last 15 years, (ii) to examine the role of TFCI in reducing regional imbalances in the sphere of tourism development of the country and (iii) To analyse the areas of operations and capital structure of the TFCI and make some recommendations and suggestions. The study is based exclusively on secondary data, which has been collected from various issues of Report on Development Banking in India published by IDBI and annual reports of TFCI. The data has been analysed and interpreted with the help of growth rates, tables and graphs to make the data presentable and easy to understand. The research is expected to provide assistance to the TFCI and other financial institutions to judge their operational efficiency in respect to its beneficiaries in the country.

INTRODUCTION

Tourism is the temporary movement of people to destination outside their normal places of work and residence and the activities taken during their stay in these destinations and the facilities created to cater to their needs. Tourism is an ever expanding service industry with latent enormous growth potential and has become one of the crucial concerns of the nations across the globe. In fact, it has come up as a key link gearing up the pace of socio-economic development world over. In modern times, the sphere of the tourism is a worldwide phenomenon. The outcome of increasing tourism has been found to be a critical and crucial catalyst in accelerating the pace of socio-economic development. Tourism is a software product and is in the service sector with relatively high value addition and so needs to be exploited to its full capacity. The countries should determine their national priorities and tourism's role in a proper 'hierarchy' of priorities to device its optimum tourism strategy.

Tourism industry is now seen as an engine of economic growth and development of developing nations. The governments in developing countries are playing an increasingly dominant role in the promotion and development of tourism. The tourism promotion and development in India at both macro and micro level does not seem to have reached anywhere near its potential. The reason behind this was largely due to casual attitude towards infrastructure development over the years. Tourism development requires the construction of wide infrastructure, accommodation, and transportation systems, cultural institutions, adventure and sports facilities, exhibitions and convention centers, shopping centers, man-made attractions, enhancement of natural and human environment and trained human resources.

The industry in India has lagged behind due to inadequate financial resources affecting the other dependent areas on tourism like accommodation, transportation, telecommunication, human resources and other type of infrastructure. Recognizing this vital role of finance in overall industrial development and tourism promotion, the Government of India decided to establish a specialised tourism financial institution to cater to financial requirements of the fastest growing travel and tourism industry. Therefore on 27th January, 1989 the government of India established Tourism Finance Corporation of India Limited (TFCI) to provide financial assistance to the travel and tourism industry in the country.

The TFCI started playing important role in financing tourism ventures, promoting entrepreneurship, and motivating investors to build requisite infrastructure. The corporation has helped various tourism ventures financially and also creating tourism awareness in the country. In this context, an attempt has been made to conduct a systematic and empirical study of the operations of TFCI. It is against this background that the present study has been undertaken. It is evident from the Table 1 that tourist industry is growing in the country.

*Assistant Professor (Finance), GGSITMS, Yamunanagar.
OBJECTIVES OF THE STUDY
The main objective of the study is to examine and assess the role of TFCI in the development and promoting tourism in India. However, the specific objectives of the study are as follows:

(i) To analyse and evaluate the role of TFCI in promoting direct employment, Investment catalysis and increase in hotel capacity in the country.

(ii) To examine the role of TFCI in reducing regional imbalances in the sphere of tourism development of the country.

(iii) To analyse the areas of operations and capital structure of the TFCI and make some recommendations and suggestions.

REVIEW OF LITERATURE
Various experts have worked on the similar topics of judging the operational performances of financial institutions. Some of these are quoted below:

Khandwall (1977), examined the relationship between different styles of top management and performance of organizations. He found that certain combinations of modes of management seemed to be associated with organizational performance. However, he has overlooked the issue as to which style is more appropriate for a particular organizational environment.

Panda and Saha (1983), observed that Orissa state finance corporation performs multifarious functions, however, it has been pumping more financial resources in private sector enterprises. They also pointed out that financial assistance given by the company is

<table>
<thead>
<tr>
<th>Year</th>
<th>Foreign Tourists in India</th>
<th>Growth Percentage</th>
<th>Foreign Exchange Earnings (in US million $)</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>16,77,508</td>
<td>1.74</td>
<td>1861</td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>17,64,930</td>
<td>5.51</td>
<td>2124</td>
<td>(0.09)</td>
</tr>
<tr>
<td>1994</td>
<td>18,86,433</td>
<td>6.99</td>
<td>2272</td>
<td>6.97</td>
</tr>
<tr>
<td>1995</td>
<td>21,23,683</td>
<td>12.58</td>
<td>2583</td>
<td>13.69</td>
</tr>
<tr>
<td>1996</td>
<td>22,87,960</td>
<td>7.73</td>
<td>2832</td>
<td>9.64</td>
</tr>
<tr>
<td>1997</td>
<td>23,74,094</td>
<td>3.77</td>
<td>2989</td>
<td>2.01</td>
</tr>
<tr>
<td>1998</td>
<td>23,58,629</td>
<td>0.65</td>
<td>2948</td>
<td>2.04</td>
</tr>
<tr>
<td>1999</td>
<td>24,81,928</td>
<td>5.23</td>
<td>3009</td>
<td>2.07</td>
</tr>
<tr>
<td>2000</td>
<td>26,49,378</td>
<td>6.75</td>
<td>3460</td>
<td>14.99</td>
</tr>
<tr>
<td>2001</td>
<td>25,37,282</td>
<td>4.23</td>
<td>3198</td>
<td>7.57</td>
</tr>
<tr>
<td>2002</td>
<td>23,84,264</td>
<td>6.03</td>
<td>3103</td>
<td>2.97</td>
</tr>
<tr>
<td>2003</td>
<td>27,26,214</td>
<td>14.34</td>
<td>4463</td>
<td>43.83</td>
</tr>
<tr>
<td>2004</td>
<td>34,57,477</td>
<td>26.82</td>
<td>6170</td>
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<td>2005</td>
<td>39,18,610</td>
<td>13.34</td>
<td>7493</td>
<td>21.44</td>
</tr>
<tr>
<td>2006</td>
<td>44,47,167</td>
<td>13.49</td>
<td>8534</td>
<td>15.23</td>
</tr>
<tr>
<td>2007</td>
<td>50,81,504</td>
<td>14.26</td>
<td>10729</td>
<td>24.26</td>
</tr>
<tr>
<td>2008</td>
<td>52,66,966</td>
<td>5.62</td>
<td>11747</td>
<td>9.49</td>
</tr>
</tbody>
</table>

Source: India Tourism Statistics, 2008, Ministry of Tourism, Govt. of India.
not according to the priority areas. Further, they also revealed that the company has financed these projects that are located in urban areas. Thus, the corporation was violating the laws while financing the projects and has overlooked backward areas.

Verma (1987), analysed the merchant banking services of various banking institutions- LIC, Banks, ICICI, IFCI. He concluded out that these financial institutions are performing merchant banking services almost 50 per cent. The study suggested that these financial institutions should diversify their finance mix towards merchant banking services in order to meet the corporate capital structure requirement.

Jagdish Kumar (1996), conducted research on ‘Delhi Financial Corporation: an Appraisal of its Role and Function’. In his research, he has evaluated the role & performance of DFC. He has also analyzed the shortcomings in operational areas like project evaluation, disbursements and recoveries.

Sunita Ravi (2007), in her study found that Indian capital markets have been undergoing tremendous changes to cater to the various needs of capital in the various sectors of the economy. The Reserve Bank of India and the government has taken various policy measures with the objective of speeding up the tempo of institutionalization of savings and investment. The new policy measures have facilitated the establishment of new financial instruments and one of them is the venture capital.

**RESEARCH METHODOLOGY**

To carry out the study the following methodology has been adopted:-

**Data Collection and Techniques**

The present investigation is a study of the impact made by the TFCI in the growth of tourism in India in terms of its financial performance and its contribution for development of tourism facilities in the country. The study is based exclusively on secondary data, which has been collected from various issues of ‘Report on Development Banking in India’ published by IDBI and annual reports of TFCI. An attempt has also been made to get responses through on the spot interviews of the officers concerned in the area of lending policies & practices and other facts relating to present investigation. The data is analysed and interpreted with the help of various charts, graphs and diagrams.

**ANALYSIS**

To make the analysis convenient, it has been divided into two subsections i.e. (A) analysis of areas of operation and capital structure; and (B) analysis of operating performance of TFCI in tourism promotion.

(A) Analysis of Areas of Operation and Capital Structure:

(i) Areas of Operation:

The Tourism Finance Corporation of India Limited provides financial assistance to enterprises, for setting up and/ or development of tourism related activities, facilities and services, which inter-alia include hotels, restaurants, holiday resorts, amusement parks and complexes for entertainment, education and sports, safari parks, rope-ways cultural centers, convention halls, all forms of transport industry, air-taxis, travel and tour operating agencies, tourism emporia, sports facilities etc. Besides, TFCI also co-ordinates and formulates guidelines and policies related to financing of such projects. As a developmental role, TFCI organizes seminars /participates in tourism-related activities organized by the Ministry of Tourism, Government of India and by the trade bodies/ associations.

TFCI provides all forms of financial assistance for new, expansion, diversification/ modernisation projects in tourism industry and/ related activities, facilities and services, in the following forms: Rupee Loans, Underwriting of public issues of share/ debentures and direct subscription of such securities, Guarantee for deferred payments and credits raised in India and/or abroad, Equipment Finance, Equipment Leasing, Assistance under Suppliers of Credit, Advisory Services. The company grants assistance in terms of rupee loans, underwriting of equity shares/ preference shares. It involves its lending in equipment financing, leasing etc. But, the main stress and focus of the TFCI is only at asset creation loans i.e. on the rupee loans etc. Till date TFCI has sanctioned the financial assistance amounting to Rs. 369882 lakhs to various tourism ventures. Although the ratio of financial assistance disbursed to sanctioned is only 58.96 per cent, but still TFCI is trying to develop tourism sector for which it has been established.

(ii) Analysis of Capital Structure:

Any Institution may prove best assistance provider if it is self-reliant in every terms and levels. In the same ways, if any financial institution whose work is to provide financial services (fund based or asset based), must have to be self dependent or sufficient in terms of financing. Financial Sufficiency here means that the institution should have sufficient amount of funds with it to cater the demand of borrower section in efficient way. For this purpose, it should go for that kind of financial resources which are permanent in nature and for acquiring those resources minimum cost of capital to be borne by the institution. The crux of the whole story is, if any institution needs to be self reliant in...
terms of fund, it should concentrate on its sources of finance and its ratio over the total capitalization i.e. the institution should focus on capital structure of itself.

TFCI also concentrates on its capital structure. The main and reliable source of finance adopted by the company is equity and retained earnings. Although the major source of finance of TFCI is loans from outside parties. TFCI took loans without pledging any security (Unsecured loans) on mass basis. Management of TFCI also used two basic sources of funds in its capital structure i.e. Owned (Share Capital, Reserves and Surpluses) and Borrowed Funds (Secured & Unsecured Loans). The proportion of these two components varies and do change in different financial years. TFCI raised its funds by borrowings also, by taking secured and unsecured loans. Otherwise to satisfy its need of funds through its internal arrangements, it issued equity share capital. TFCI is having outstanding secured loans against Hypothecation of Book-Debts from State Bank of India, State Bank of Indore, United Bank of India and HDFC Bank Ltd. for the current year.

It is evident from the above figure that the major source of funds of the company is unsecured loans. TFCI relied on unsecured loans as these are issued without mortgaging any security to external party. But over the period of study it showed great trust on the retained earnings and increased its balance year-after-year, it is a good sign of self-sufficiency. The status of unsecured loans as on 31st March, 2009 is stated below:

<table>
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<th>UNSECURED LOANS</th>
<th>Amount (INR)</th>
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<tr>
<td>1.29% Bonds (2012) (Series GB-I) (Interest and repayment of principal guaranteed by Government of India)</td>
<td>25,00,00,000</td>
</tr>
<tr>
<td>10.61% Bonds (2008) (Series MB XXXI)</td>
<td>18,40,00,000</td>
</tr>
<tr>
<td>10.28% Bonds (2010) (Series MB XXXI)</td>
<td>38,80,00,000</td>
</tr>
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<td>9.78% Bonds (2008) (Series MB XXXI)</td>
<td>7,55,00,000</td>
</tr>
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<td>10.25% Bonds (2013) (Series MB XXXI)</td>
<td>29,25,00,000</td>
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<td>10.28% Bonds (2013) (Series MB XXXIV)</td>
<td>7,58,00,000</td>
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<td>10.05% Bonds (2013) (Series MB XXXV)</td>
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</tr>
<tr>
<td>8.79% Bonds (2013) (Series MB XXXV II)</td>
<td>35,00,00,000</td>
</tr>
<tr>
<td>8.50% Bonds (2013) (Series MB XXXVI)</td>
<td>58,00,00,000</td>
</tr>
<tr>
<td>8.50% Bonds (2013) (Series MB XXXVII)</td>
<td>9,07,00,000</td>
</tr>
<tr>
<td>Book overdraft</td>
<td>41,12,09,8</td>
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<tr>
<td>Total</td>
<td>2,29,18,12,098</td>
</tr>
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</table>
It is evident from the above discussion that TFCI is increasing its share in retained earnings as far as internal funds are concerned, but is having a major share of unsecured loans in its portfolio of capital structure.

(B) Analysing Operating Performance of TFCI in Tourism Promotion
The reason for establishment of Tourism Finance Corporation of India Ltd. is to provide better opportunities to the tourism sector for its balanced development in the whole country by means of providing assistance. The corporation also made its serious efforts for the fulfillment of the same objective. TFCI Limited played a significant role in the development of tourism and tourism related products/services by contributing directly and indirectly.

Table 3: Table Showing the Status of Investment Catalysed, Direct Employment in Tourism Industry and Addition to Hotel Rooms through the Assistance Provided by the TFCI

<table>
<thead>
<tr>
<th>Year</th>
<th>Investment catalysed through assistance (Crores)</th>
<th>Growth (%)</th>
<th>Direct employment in tourism industry</th>
<th>Growth (%)</th>
<th>Hotel rooms</th>
<th>Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994-95</td>
<td>898.85</td>
<td></td>
<td>6,202</td>
<td></td>
<td>3,029</td>
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<tr>
<td>1995-96</td>
<td>1,702.92</td>
<td>89.46</td>
<td>6,548</td>
<td>5.58</td>
<td>2,490</td>
<td>17.79</td>
</tr>
<tr>
<td>1996-97</td>
<td>981.55</td>
<td>42.36</td>
<td>7,542</td>
<td>15.18</td>
<td>3,409</td>
<td>36.91</td>
</tr>
<tr>
<td>1997-98</td>
<td>1,049.61</td>
<td>6.99</td>
<td>6,965</td>
<td>8.98</td>
<td>3,143</td>
<td>7.80</td>
</tr>
<tr>
<td>1998-99</td>
<td>525.25</td>
<td>49.96</td>
<td>3,421</td>
<td>50.17</td>
<td>2,606</td>
<td>34.46</td>
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<tr>
<td>1999-00</td>
<td>264.82</td>
<td>49.58</td>
<td>1,547</td>
<td>54.78</td>
<td>886</td>
<td>56.99</td>
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<tr>
<td>2000-01</td>
<td>331.47</td>
<td>25.17</td>
<td>2,120</td>
<td>37.04</td>
<td>1,263</td>
<td>42.33</td>
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<td>2001-02</td>
<td>251.48</td>
<td>24.13</td>
<td>975</td>
<td>54.01</td>
<td>410</td>
<td>67.49</td>
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<tr>
<td>2002-03</td>
<td>69.13</td>
<td>72.51</td>
<td>440</td>
<td>54.87</td>
<td>247</td>
<td>39.76</td>
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<tr>
<td>2003-04</td>
<td>336.04</td>
<td>386.04</td>
<td>1,312</td>
<td>198.18</td>
<td>504</td>
<td>104.05</td>
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<td>2004-05</td>
<td>564.00</td>
<td>67.86</td>
<td>500</td>
<td>48.69</td>
<td>844</td>
<td>67.46</td>
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<tr>
<td>2005-06</td>
<td>700.00</td>
<td>24.11</td>
<td>1,500</td>
<td>200.00</td>
<td>900</td>
<td>5.21</td>
</tr>
<tr>
<td>2006-07</td>
<td>500.00</td>
<td>32.57</td>
<td>1,000</td>
<td>33.33</td>
<td>900</td>
<td>12.50</td>
</tr>
<tr>
<td>2007-08</td>
<td>1,028.00</td>
<td>106.60</td>
<td>3,296</td>
<td>22.90</td>
<td>2,061</td>
<td>12.90</td>
</tr>
<tr>
<td>2008-09</td>
<td>2,391.00</td>
<td>132.59</td>
<td>5,014</td>
<td>52.12</td>
<td>2,546</td>
<td>23.53</td>
</tr>
</tbody>
</table>

Source: Various Annual Reports of TFCI Ltd.

Above table shows the resultant positions of the assistance provided by TFCI to the different tourism related projects during the period of study i.e. from the year 1995 to 2009. The detailed contribution of the company in tourism development is discussed and analysed below:

(i) Investment Catalyst
Catalysing investment in any sector may improve the opportunities in that particular sector. Following this universal truth, TFCI also catalysed investment in tourism sector to grow it at nationwide scale. The assistance provided by the company had also led to catalysing investments in the tourism sector thereby contributing to the creation of need-based infrastructure, which has direct bearing on the development of tourism in the country. Table 3 reveals that TFCI catalysed investment through assistance ranging between Rs. 69.13 crores to Rs. 2,391 crores. Maximum assistance was provided to tourism sector in the financial year 2008-09 and the minimum in the year 2002-03. In the year 2003-04, growth in the assistance provided was recorded at its maximum (386.04), whereas in the very previous year assistance provided was at its minimum, but the overall trend shows the upward trends of the assistance provided and investment catalysed by the company.
(ii) Employment Generation

Tourism is presently the most important civil industry in the world. The hospitality industry is second only to the global oil industry in terms of turnover, and is, by far, the largest employer around the world. Ten per cent of the world’s work force is in the tourism sector and 10 per cent of the world’s Gross National Product comes from it. TFCI Ltd also contributed in the employment opportunities also. It provides financial assistance to tourism and tourism related projects and as the result of this it generated the employment opportunities also. It provided direct employment to about 71,310 persons in tourism industry by the year 2008-09. Table 3 reveals the condition and status of direct employment provided to tourism industry by the company. In the initial years of study upto 1996-97, employment opportunities generated by the company reached at the top levels and generated 7542 employments in that particular single year. But in the year 2002-03 it provided these chances to only 440 persons. Again after the year 2004-05, the company’s contribution in providing direct employment goes on higher side and it goes on increasing year after year.

(iii) Assistance to Construct, Maintain and Diversify Hotel Rooms

Indian Tourism industry has shown sustained growth during the past few years. TFCL, during the period of study, had been pursuing to expand its portfolio by extending facilities to existing hotel properties for renovation, upgradation, and expansion. However, with the improved trends and expected demand for additional room inventory in the coming years, company has been considering new proposals. Indian hospitality industry registered strong growth in 2007-08 fiscal, despite of the slowdown jitters and decline of dollar. One of the major reasons for the increase in demand for hotel rooms in the country is the boom in the overall economy and high growth recorded in sectors like information technology,
telecom, retail and real estate. Overall occupancy in most markets stagnated while ARR saw a marginal increase. The hotels managed good revenues due to dearer room rates. The shortage of 1,50,000 rooms is fuelling hotel room rates across India. TFCI had also been contributed substantially in this direction. As results of the assistance provided by the company, hotel industry added rooms to cater the services. The assistance provided by the company since its inception had enabled to add 36607 rooms to tourism industry. In the year 1996-97, maximum addition of hotel rooms was registered i.e. 3409 rooms. Although there has been same decline, but from the year 2002-03, it has added more rooms year after year continuously.

Figure 4: Per Year Addition in Hotel Rooms Through Assistance Provided By TFCI

(iv) Entrepreneurs Promotional Activities
TFCI has presently engaged in a variety of entrepreneurial promotional activities like:

(i) Conducting surveys along with other financial institutions in less developed regions of state and union territories to assess tourism potential and identify projects that can be quickly implemented.

(ii) Preparing project profiles to guide entrepreneurs.

(iii) Commissioning feasibility studies on projects identified in the tourism industry.

(iv) Setting up consultancy organization at state level, jointly with other institutions to provide techno-economic consultancy services.

(v) Reducing Regional Imbalances in Terms of Growth
TFCI has worked for the elimination of imbalanced regional growth also. It involves itself in the surveys with other financial institutions also to identify less developed regions of states and Union Territories that can be quickly implemented. By providing financial assistance also it developed some backward states in terms of tourism infrastructure. TFCI signed a number of MOUs with state governments to promote tourism related facilities.

CONCLUSION

Analysis shows that during the last fifteen years of study, on the whole, TFCI played an important role in employment generation and adding hotel facilities. Also in case of investment, picture shows an overall increasing trend. The study recommends that TFCI Ltd. must focus on retained earnings as a long term source of finance in comparison to other sources. TFCI, despite some negativities, made efforts for the promotion of tourism in the country. As a nodal agency, the steps taken by the corporation for the growth of tourism sector in India should not be ignored. It assisted the tourism ventures in the past and will assist the same for the purpose for which it came into existence.

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PROBLEMS OF ENTREPRENEURSHIP DEVELOPMENT THROUGH AGRIBUSINESS IN RURAL AREAS: A STUDY OF RICE MILLS IN KOLHAPUR DISTRICT

Shrikrishna Mahajan* and Sagar Powar**

Development of entrepreneurship through agribusiness in rural area is a formidable problem. Growth of agribusiness is sine qua non for accordingly accelerating and sustaining growth tempo in India and also raising of income of the people. The present study seeks to identify in problems in developing entrepreneurial skills and the measures thereof to overcome these bottlenecks. This sample study revolves around rice mills in Kolhapur district in Maharashtra. Though rice agroprocessing units offer huge potential for the development of entrepreneurs but these need to be organised on sound scientific lines by providing all financial marketing and other logistic support by the governmental nodal agencies.

1. INTRODUCTION
Promotion of rural industries has been the central objective of many strategies adopted to bring about an equitable distribution of income through raising the production capacity of rural resources and increasing their participation in the process of development. Rural industrialization is divided into agriculture and non agriculture base but it is always interlinked with agricultural activity because the man power involved is from agrarian community itself.

Development of rural entrepreneurship is necessary for rural development. However, the circumstances in rural area create problems in the development of entrepreneurship. As a result, rural population has to depend predominantly on raising agricultural crops. The traditional rain fed agriculture in the country is not able to maintain the local population round the year. It leads to rural poverty and migration to urban area. It is, therefore, evident that rural industrial enterprise must be developed to mitigate mentioned this tendency. It is necessary to develop agro entrepreneurship for improving agricultural productivity, ensuring food security and competitive strength.

Rural industry includes different kinds of village and small industries. Rural industrialization is a key to rural development and rural prosperity. It provides additional opportunities of employment, income, better standard of living and there by enriches the cultural heritage of the various social structures in rural areas. Rural industrialization is important not only as a means of generating employment opportunities in the rural areas with low capital cost and raising the retail income of the people, but also because it contributes to the development of urban industries. It will also help in the utilization of the available manpower for processing locally available raw materials by adopting simple techniques. Right from Kashmir to Kanyakumari and Konkan to West Bengal, people from almost all states use rice as ingredient their food stuff. For the present study, Kolhapur district has been selected, as paddy is an important crop in the district. There is also a big scope for rice mill industry to play a vital role in rural development of Kolhapur district.

2. STATEMENT OF THE PROBLEM
The rural industrialization is based on agriculture (ago-based industries) and non-agricultural activities in villages or rural area. The indigenous people are not taking the interest in agro-processing units, whereas there exists ample scope for such ventures. Rural people do possess entrepreneurial as well as managerial skills but due to lack of proper training, awareness and linkage between banking and government agencies, limited industrial development is seen in rural area. But some entrepreneurs are running in this district in rural area. The study attempts to examine the role and the problems related to functional areas of mills, like production, finance, human resource and marketing in Kolhapur district.

3. OBJECTIVES AND RESEARCH METHODOLOGY
(i) To study the working and identify the problems of rice mills in Kolhapur district.
(ii) To study the role played by rice mills in entrepreneurship development of Kolhapur district.

4. REVIEW OF LITERATURE
Most of the researchers on industrialization focus
on the operational problems of industries at micro level. Bhat (1998) observes that the problem of food processing units like difficulties in production and marketing, problem of power supply, unawareness about government concession, subsidies etc. are important. Iqubal (1980) has analyzed agro based industries' performance and their prospect. Bhagavat (2001) has identified various problems of bakery industry such as traditional production methods, machinery maintenance, inventory control, raw material management, packaging etc. Baligar (2000) in his study finds industrial sickness in small scale units due to problems relating to marketing, human resource, production, finance, shortage of skilled labor, raw material. Roodai (2007) reveals that marketing assistance provided by government to rural food processing units is inadequate.

The data have been collected for the present study through primary and secondary sources of the 13 rice mills in Kolhapur district. Various types of paddy are milled by the rice mills in Kolhapur district which are: Ratnagiri 24, Indrayani, Hawale, Karjat Brownish, Bhogavati, Karjat White, Basmati, Sarathi, Shweta, Poonam, Jaya, Sonam and Ghansal.

Most of the mills were established before 1990. The owners of these mills belong to upper castes such as Brahmin, Lingayat, Maratha and Jain. Among all thirteen mills, single proprietorship is the type of organization in nine mills, partnership in one and three on cooperative basis. All the 13 rice mills are located in rural area. Eleven are male owners and only 2 females. More than half of the owners have qualification up to 7th standard, 3 owners have qualification up to 12th standard and three mill owners are graduate. For the purpose of collecting primary data personal interview, discussion and non-participative observation methods have been used. The interview schedule was prepared and pre-tested and then executed in the field for collecting primary data. The secondary data have been collected from the published and unpublished sources. The data have been collected through the sources such as, annual reports and statements, books, Journals, and periodicals. While analyzing the data, appropriate statistical techniques like percentage and average are used.

5. ANALYSIS AND INTERPRETATION
We now bring out vividly the problems of these rice mills which the entrepreneurs are facing.

5.1 Raw Material
In all these rice mills, the major problem was inadequacy of raw material. On the basis of the analysis of last five year's performance, it is found that the production in rice mills has been gradually declined. It is mainly due to shortage of raw material (i.e. paddy). The specific enquiry in the field portrays that the area under cultivation for paddy is replaced by sugarcane because the changing crop pattern. The revenue generated from sugar cane cultivation is comparatively greater than that from paddy cultivation. Paddy production is also affected adversely by the land sandwiched in sugarcane production, due to heat created from sugarcane fields. Hence, the farmers shifted from paddy to sugarcane. So it has created shortage of raw material and became problem for rice mills. Other related problems such as fluctuating prices of raw material, quality variations, inconsistent suppliers, unavailability of credit are no less discounting problems (Table 1).

Table 1: Problems Related to Raw Material

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Factor</th>
<th>Year</th>
<th>No.</th>
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<tbody>
<tr>
<td>1</td>
<td>Shortage of raw material</td>
<td>11</td>
<td>02</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>Fluctuating price of raw material</td>
<td>15</td>
<td>00</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Quality variation</td>
<td>06</td>
<td>05</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>Inconsistent supplier</td>
<td>11</td>
<td>02</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>Non availability of raw material at required time</td>
<td>09</td>
<td>04</td>
<td>13</td>
</tr>
<tr>
<td>6</td>
<td>Unavailability of credit</td>
<td>00</td>
<td>05</td>
<td>15</td>
</tr>
</tbody>
</table>
5.2 Production
Generally, the mills are using traditional technology and old type of machinery. Only two mills have recently installed advanced machinery with modern technology. It is the common phenomenon in every rice mill that the break down in machinery is more than 10 times in a year.

As far as the production capacity is concerned, over a period of five years from 2004-2005 to 2009-2010, the production of these mills has been declined from average 500 bags in beginning years to 100 bags at present. It means that the production capacity is not fully utilized. The main reasons are shortage of raw material, power-cut, machine break downs. All these rice mills function in single shift only due to shortage of power supply.

Table 2: Problems Related to Production

<table>
<thead>
<tr>
<th>Sr. No.</th>
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<th>Total</th>
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<tr>
<td>1.</td>
<td>Use of modern technology</td>
<td>02</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(15)</td>
<td>(85)</td>
<td>(100)</td>
</tr>
<tr>
<td>2.</td>
<td>Breakdowns in machinery</td>
<td>13</td>
<td>00</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
<tr>
<td>3.</td>
<td>Change in production method</td>
<td>02</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(15)</td>
<td>(85)</td>
<td>(100)</td>
</tr>
<tr>
<td>4.</td>
<td>Technical assistance from outside agency</td>
<td>09</td>
<td>09</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(23)</td>
<td>(23)</td>
<td>(100)</td>
</tr>
<tr>
<td>5.</td>
<td>Problem in power supply</td>
<td>01</td>
<td>09</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(92)</td>
<td>(91)</td>
<td>(100)</td>
</tr>
<tr>
<td>6.</td>
<td>Full utilization of production capacity</td>
<td>00</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(00)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses are percentages.

5.3 Finance
The annual turnover of these mills is Rs. 10 lakhs to Rs. 75 lakhs on an average. Majority of the mills have the bank account in scheduled or co-operative banks. The mill owners have opined that the nationalized banks and financial institutions are reluctant to provide capital for rural industries like rice mills. So the mill owners shifted to either co-operative banks or scheduled banks. The financial institutions like financial corporations have tedious and time consuming procedure for sanctioning the loan. To avoid the mal-practices in availing the advantages from financial corporation, they turned to scheduled or co-operative banks. The working of these banks is user friendly and flexible and is customer oriented.

Table 3: Problems Related to Finance

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Factors</th>
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<th>No</th>
<th>Total</th>
</tr>
</thead>
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<tr>
<td>1.</td>
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<td>05</td>
<td>08</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(38)</td>
<td>(62)</td>
<td>(100)</td>
</tr>
<tr>
<td>2.</td>
<td>Finance from national bank (long term loan)</td>
<td>05</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(23)</td>
<td>(77)</td>
<td>(100)</td>
</tr>
<tr>
<td>3.</td>
<td>Availability of subsidized loan</td>
<td>05</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(23)</td>
<td>(77)</td>
<td>(100)</td>
</tr>
<tr>
<td>4.</td>
<td>Working capital from national banks</td>
<td>05</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(23)</td>
<td>(77)</td>
<td>(100)</td>
</tr>
<tr>
<td>5.</td>
<td>Lengthy process of loan from national banks</td>
<td>05</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(62)</td>
<td>(38)</td>
<td>(100)</td>
</tr>
</tbody>
</table>

It may be mentioned that out of thirteen, only three mills got the 35 per cent subsidized loan for the construction of warehouse before 1990. Other than this, they couldn't avail any grant from government. These mills couldn't get any concessional rate of interest on loan from government.

5.4 Labour Problems
The mills under study are very small in nature and they employ only 8 to 10 workers. By and large these workers have no previous experience before joining. They had not attended any well structured training programme, even though they have completed service of 10 to 15 years. Out of thirteen mills only...
one mill owner recently has given the training to only one worker at Bangalore because that mill installed recently the advanced machinery. Skilled labor is difficult to obtain in rural areas because of lack of training and appropriate educational facilities in the villages.

Eleven mills had the problem of absenteeism of employees. This affects adversely the activity of production. All 13 mills have not in practice of appraisal system for the evaluation of employees. Eleven mills had no provision of retirement like gratuity, provident fund etc. 85 per cent of the rice mills have not adopted the grievance procedure for tackling the problems of employees.

### Table 4: Problems Related to Labour

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Factors</th>
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<th>No</th>
<th>Total</th>
</tr>
</thead>
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<td>00</td>
<td>13</td>
<td>(100)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(00)</td>
<td></td>
<td>(100)</td>
</tr>
<tr>
<td>2</td>
<td>Shortage of skilled workers</td>
<td>11</td>
<td>02</td>
<td>(13)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(02)</td>
<td>(15)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Absenteeism</td>
<td>11</td>
<td>02</td>
<td>(13)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(02)</td>
<td>(15)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Appraisal system</td>
<td>00</td>
<td>13</td>
<td>(13)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(00)</td>
<td></td>
<td>(100)</td>
</tr>
<tr>
<td>5</td>
<td>Retirement provision</td>
<td>02</td>
<td>11</td>
<td>(13)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(02)</td>
<td>(15)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Grievance procedure</td>
<td>02</td>
<td>11</td>
<td>(13)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(02)</td>
<td>(15)</td>
<td></td>
</tr>
</tbody>
</table>

5.5 Marketing

Generally these mills have been doing job work for farmers and traders. So the market segmentation is not required for these mills. But they have to maintain proper customer relationship and strategies regarding the retention of customers. The share of firm in market is one of the effective non financial measures of performance. But these mills do not know their own share in the market. There is a lack of innovation in marketing practices. Instead of charging milling cost, the wastage is taken out by the mills and rice is processed freely. Actually, the processing is not free of cost. Instead of charging, the mill owners can cover the cost from converting wastage into money and it benefits more than the charging cost.

### Table 5: Problems Related to Marketing

<table>
<thead>
<tr>
<th>Sr. no.</th>
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<td>12</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(09)</td>
<td>(91)</td>
<td>(100)</td>
</tr>
<tr>
<td>2</td>
<td>Increase cost of production</td>
<td>13</td>
<td>00</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(13)</td>
<td>(00)</td>
<td>(100)</td>
</tr>
<tr>
<td>3</td>
<td>Fall / increase demand</td>
<td>13</td>
<td>00</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(13)</td>
<td>(00)</td>
<td>(100)</td>
</tr>
<tr>
<td>4</td>
<td>Advertisement and publicity activity</td>
<td>00</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(00)</td>
<td>(13)</td>
<td>(100)</td>
</tr>
<tr>
<td>5</td>
<td>High competition</td>
<td>13</td>
<td>00</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(13)</td>
<td>(00)</td>
<td>(100)</td>
</tr>
<tr>
<td>6</td>
<td>Preparation of marketing plan</td>
<td>01</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(09)</td>
<td>(91)</td>
<td>(100)</td>
</tr>
</tbody>
</table>

All 13 rice mills face the high degree of competition in industry in terms of price, quality, consistency in production, modern machinery for production. Only one mill has prepared the marketing plan for attracting more customers, volume of sales. The ignorance of marketing activity is due to small scale and homemade nature of working in rural area of rice mills.
6. CONCLUSION

Rural industries are essential to develop entrepreneurship and create employment opportunities for proper use of material and capital. The rice mills in Kolhapur district have the problems in procuring the raw material, unscientific production method, negligence in training of personnel; obtaining finance, marketing problems etc. But it is true that rural industrialization will create local employment which will minimize migration of rural population to urban areas. Even though there may be some industrial activity in rural areas, they find it very difficult to sell their output because of lack of effective market facility and absence of safe, cheap and quick transport facilities. Rice mills that have huge potential as agro processing units in Kolhapur district need to be developed on sound scientific lines.

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