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- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
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INTERNATIONAL FINANCIAL REPORTING STANDARD ADOPTION, IMPLICATION ON MANAGEMENT ACCOUNTING AND TAXATION IN NIGERIAN ECONOMY

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ABSTRACT

International Financial Reporting Standard (IFRS) is being adopted by nations all over the globe, with the objective to harmonizing accounting between countries which will make it easier to conduct business internationally and consequently raise funds in global capital market. Nigeria is faced with problems of segment reporting system, poor corporate governance which has not given transparency to the reporting system, inability of Nigeria to be listed in the International capital market. The objective of this paper is to evaluate the adoption of IFRS with the impact on management accounting and taxation. Theoretical and empirical models were adopted in analyzing the work. The theoretical model examined the adoption of IFRS and the challenges in some countries while the empirical model tested the stated hypotheses with the use of Chi-square. The findings were that IFRS will impact segmentation reporting and transparency reporting of financial and management reporting for planning, control and decision making, IFRS will impact Nigerian companies to access finance in the international capital market for global business integration, and IFRS will have positive impact on computation of tax and liabilities of Nigerian companies for easy interpretation of the tax system for decision making. It is recommended that Nigeria should adopt IFRS with focus on ensuring corporate governance for transparency reporting and that the regulatory authorities should formulate policies that will make Nigeria companies to overcome challenges that may arise from the implementation of IFRS.

KEYWORDS

Accountability, Discrepancies, Harmonization, Segmentation, and Transparency.

INTRODUCTION

Nigerian Accountants regardless of their specialty are familiar with International Federation of Accountants Generally Accepted Accounting Principles (GAAP). Nigeria has its own set of accounting standards being issued by Nigerian Accounting Standard Board (NASB).With the world becoming a global village ,companies and investors who do business in several countries need to understand each nation's accounting principle. Nigerian companies listed in a foreign stock exchange need to comply with foreign regulations to reconcile their financial statements to foreign accounting standards.Thesame way, foreign companies operating in Nigeria listed in Nigerian stock exchange need to reconcile their financial statements to Nigerian standards.

The main objective of International Financial reporting Standard (IFRS) is to harmonize accounting between countries which will make it easier to conduct business internationally and can subsequently raise funds in global capital market. According to Benzacar (2008) IFRS is the official reporting standard which have been adopted by more than 100 countries around the world. The goal of IFRS is to have all countries follow the same accounting standards, thereby simplifying the process of all concerned. Zakari (2010) defined International Financial Reporting Standards as a set of accounting standards developed by the International Accounting Standards Board (IASB) that is becoming the global standard for the preparation of public company financial statements. Major economies have established timeliness for convergence with, or adoption of IFRS. All listed European Union companies have been required to use IFRS since 2005.The Australian Accounting Standard Board (AASB) has issued Australian equivalent to IFRS; Turkey Accounting Standards Board translated to IFRS into Turkish in 2006, while Canada has mandated Canadian publicly accountable profit-oriented enterprises to use IFRS for financial periods beginning on or after 1st January 2011.

The following countries have also taken decisive decision on IFRS:

(1) United States of America Securities and Exchange Commission has proposed to move to IFRS by 2014.

(2) In South Africa, all companies listed on the Johannesburg Stock Exchange have been required to comply with the requirements of IFRS since January 2005.

(3) In India, the Institute of Chartered Accountants of India (ICAI) has announced that IFRS will be mandatory in India for financial statement for the periods beginning on or after 1st April 2011.

(4) Nigerian Accounting Standard Board has not taken decisive decision, however the Nigerian Stock Exchange has mandated all companies listed in the exchange to get for the adoption of IFRS in 2011 while the Central Bank of Nigeria has mandated all banks to adopt IFRS by 2011.

The rules for the first-time adoption of IFRS are set out in IFRS 1 –First time-adoption of International Financial Reporting Standards. IFRS 1 states that a company should use the same accounting policies in its opening balance sheet and throughout all periods presented in its IFRS financial statements. The standard requires these policies to comply with IFRS effective at the reporting date of the first published financial statements under IFRS. IFRS 1 permits certain mandatory exemptions and also allows exemptions from the application of certain IFRS in order to assist companies with the transaction process.

According to an Oracle White Paper (2008) the International Accounting Standards Board (IASB) has since 1970 worked to develop a single set of International Standards, the IFRS. The world's capital market ebb and flow continuously, and participants in that market place must have access to financial information that factually reflects their economic performance, is consistent among companies around the globe, and is governed by a trusted and respected authority of corporate compliance. The paper stated further that this massive International endeavour is one of unprecedented scale and complexity one that is now bearing fruit, despite some minor setbacks. These setbacks have included, for example, the well-publicized amendments to International Accounting Standards (IAS) 39: Financial Instruments: Recognition and Measurement .Nevertheless, IFRS have gained acceptance and attraction in all major regions of the world. The non-adoption of IFRS by Nigerian companies has made a reality of non-acceptance of Nigerian-produced financial standard for investment purposes.

FOCUS

The focus of this paper is to analyze the impact of International Financial Reporting Standard adoption on management accounting and taxation in Nigerian economy. While more than 100 countries all over the world have been enjoying the full benefits of global integration of common financial reporting system, access to capital in the global market, common principles in trading and payment systems, Nigeria economy for non-adoption of IFRS is facing the following identified problems:

(1)Lack of segment reporting system: Segment reporting addresses the needs of users to better understand the performance of companies. The profitability, risk and growth potential of different lines of business or geographical segments can vary significantly and segment information can help to predict the future cash flows generated by a company results per share or can be used in valuing common stock. Adoption of International Financial Reporting Standard (IFRS) by countries will make segment reporting of companies and their subsidiaries in various countries very easy. Non-adoption of IFRS by Nigeria will make segment reporting very difficult as different standards are applicable to Nigeria economy and other countries of operations. According to European Commission (2007), a business segment is a distinguishable component of an entity in providing an individual or a group of related product(s) or services(s) subject to risks and rewards that are different from those of other business segments. A geographical segment is a distinguishable component defined as for a business segment, but subject to risks and rewards related to particular economic environments. Segments for external reporting purposes are those for which information is required to key management personnel for the purpose of evaluating past performance and for making decisions about future allocation of resources.

(2) The problem of poor corporate governance in Nigeria as four pillars of corporate governance of transparency, independence, fairness and accountability are missing in the preparation of financial reports. The believe in the preparation of IFRS 8 is that the application of the standard will be beneficial in providing better transparency and sharing of management information to the investors, but that it is of crucial importance to review the governance process and ensure the linkage between internal and external data.IFRS8 have positive effect on corporate governance as it introduces greater transparency between financial statement and management commentary.

(3)Inability of Nigerian companies to be listed in the International Financial Market and inability to access capital in the International Capital Market because of varying accounting principles, standards and financial reporting system, which will take some translations before they can be aligned with IFRS. Consideration for quotation and access to capital will not be favourably disposed to.

(4) Varying management reporting system from countries that have adopted IFRS. This challenge presents obstacle to accurate and effective management reporting. Statutory reporting must be aligned with management reporting, and executives have to understand the impact that IFRS have on performance management and key performance indicators (KPIs). Forward-looking statements of performance based on IFRS have to be consistent with budgets based on the Generally Accepted Accounting Principle (GAAP).Reporting tools and dashboards must be versatile enough to allow management to monitor, understand and report performance based on whatever GAAP or other set of standards they choose.

(5) The tax implication of non-adoption of IFRS is a key issue. The move to International Financial Reporting Standards (IFRS) from current Generally Acceptable Accounting Principles will change the way companies report their business results.The move will affect the measurement and reporting if income taxes for financial statement purposes and the calculation of taxes payable. Non adoption of IFRS will make it difficult for Nigeria to adopt global principles on taxes. It will have effect on financial statement, accounting for income taxes and computation of taxes.

(6) Non-adoption of IFRS by Nigeria will make its financial statement unacceptable in the global market and interpretation becomes very clumsy and difficult because of change in terminology. In effect the accounting treatment of financial statements becomes obsolete. Some terminologies in Nigerian Statement of Accounting Standards (SAS) are no longer being in use in IFRS for example:

SAS	IFRS
Balance Sheet	Statement of financial statement
Profit and Loss account	Statement of Comprehensive income or income Statement (separate) and Statement of Comprehensive income (two statements)
Statement of cash flow	Statement of cash flows
“on the face of”	“in”
“Balance sheet date”	“end of reporting period”

Adapted from Zakari,M.I.(2010) p.10

The main objective of this paper is to assess the impact of the adoption of International Financial Reporting Standards on management accounting and taxation in Nigerian economy. Other objectives are:

(1)To evaluate how IFRS can impact segmentation reporting system, good corporate governance for transparency reporting of financial and management reporting for planning ,control and decision making in Nigerian economy for easy integration into the global economy.

(2) To assess the importance of IFRS on Nigerian companies to have access to finance in the international capital market for global business integration.

(3) To align Nigerian SAS tax standards with IFRS for the adoption of global principles on taxes for easy interpretation of tax computations and tax liabilities of Nigerian companies in the international market.

The following hypotheses were formulated for testing:

(1) IFRS will not impact segmentation reporting and transparency reporting of financial and management reporting for planning, control and decision making in Nigerian economy.
(2) IFRS will not impact Nigerian companies to have access to finance in the international capital market for global business integration.
(3) Aligning Nigerian SAS tax standards with IFRS standards will not have positive impact on computation of tax and liabilities on Nigerian companies for the interpretation of their tax system for decision making in the international market.

THE CONCEPT OF MANAGEMENT ACCOUNTING AND IFRS

According to The Chartered Institute of Management Accountants (1993), management accounting is the application of professional knowledge and skill in the preparation and presentation of accounting information so as to assist management in the formulation of policies and in planning and controlling the activities of a business enterprise. Management accounting is concerned with the provision and interpretation of information required by management of all levels for the following purposes: formulating the policies of the organization, planning the activities of the organization in the long-run, medium and short-run, controlling the activities of the organization, decision making regarding investments and business development, and performance appraisal at strategic, departmental and operational levels. The most important factor in creating healthy financial market, and promoting economic growth and development, is establishing high quality financial information system. According to Chikwendu (2009) financial markets are predicated on confidence, and the presumption that financial information is appropriate and reflects the economic reality. The best assurance that financial statement pass muster is if they are prepared and presented in accordance with accounting standards and principles that are generally accepted internationally. Against this backdrop the Central Bank of Nigeria has directed that banks should adopt the International Financial Reporting Standards (IFRS).The Nigerian banking system propelled by the 2005 consolidation, has positioned itself as the key driver for the Nigerian economy. The banking industry, according to Chikwendu has been described by the financial times as “fastest growing” and by the International Monetary Fund(IMF) as “Increasingly integrating rapidly into global financial markets” The entrance of foreign financial services operations benefits the country by providing deeper liquidity to the market with the resultant reduction in the cost of capital. With the availability of readily accessible financial markets having relatively long standing stability, Nigeria needs a key inducement regulation that promotes full disclosure and high quality financial information system. Investors base their decisions on an assessment of how well financial reports reflect and entity’s financial position. Efficient and independently verifiable financial information frameworks need therefore to be instituted to ensure that financial statements are prepared and presented to reflect an entity’s true financial position.

Nigeria currently uses Statement of Accounting Standard (SAS) issued by Nigerian Accounting Standard Board (NASB).The SAS is outdated and does not meet the needs of a modern financial system. Ckukwendu (2009) explained that the World Bank identified the gaps between SAS and the International Financial Reporting Standards (IFRS).This was corroborated by Fitch in its report-Nigerian Banking Sector: Annual Review and outlook published in June 2009. 4 out of 30 SAS issued as at 2009 are without international equivalents. Also there are material differences with some respect to some SAS that appear to conform to some active International Accounting Standard Board standards. The SAS does not inspire investor confidence and hence, presents obstacles to the growth and internationalization of Nigeria’s banking sector. The International Financial Reporting Standards (IFRS) is generally acclaimed as the worldwide standard. It was developed by the International Accounting Standards Board (IASB) to promote the preparation of financial statements that can be read worldwide and used as an alternative to national accounting standards. The IFRS has been accepted as the basis for reporting in major and emerging international financial markets. It is included by the Financial Stability Forum (FSF) as one of the key standards for sound financial system and used by the World Bank as part of its standards and codes initiative (SCI).

THE CONCEPT OF TAXATION AND IFRS

Taxation is the system of collecting money by taxes i.e. the system by which taxes are imposed (CITN, 2009).The Black's law dictionary defines tax as a rateable portion of the produce of the property and labour of the individual citizens, taken by the nation, in the exercise of its sovereign rights, for the support of government, for the administration of the law, and as the means of continuing in operation of the various legitimate functions of the state. The Chartered Institute of Taxation (CITN) (2009) defined tax as an enforced contribution of money, enacted pursuant to legislative authority. If there is no valid statute by which it is imposed; a charge is not a tax.

The move to International Financial Reporting Standards (IFRS) from Generally Acceptable Accounting Principles (GAAP) and Nigerian Accounting Standard (SAS) will fundamentally change the way companies report their business results. The move will affect the measurement and reporting of income taxes for financial statement purposes and the calculation of taxes payable .According to PriceWaterhouseCoopers(2008) the effect of IFRS on taxation can be viewed in three ways:

(1)Financial Statement Effects:

Generally Accepted Accounting Principles (GAAP), SAS and IFRS are moving closer to convergence. IFRS may present some basic financial statements elements differently. The following components will be affected in IFRS:

a. Component of cost :In IFRS is more specific (requires capitalization of interest during construction)
b. Valuation: In IFRS,it requires fair value more often e.g Agriculture.IFRS also permits for value more often (e.g revaluation of capital assets and investment property)
c. Debts versus equity classification: Convertible instruments must meet fixed for fixed criteria. Any variability in the conversion price of shares to be issued on conversion leads to full liability treatment.

The overall effect of adopting IFRS depends on each corporation's facts and circumstances. Some industries will be affected more than the others.Net income and shareholders' equity may be more volatile under IFRS because of the increased ability or requirement for reporters to use fair value when measuring the accounting carrying value of assets and liabilities. For the initial adoption of IFRS, companies are generally required to present their financial statements and comparatives as if IFRS had always been applied.

(2) Accounting for Income Taxes:

The Generally Accepted Accounting Principle (GAAP) and IFRS with respect to income taxes:

a. Apply the balance sheet or liability approach to accounting for income taxes that requires an entity to recognize a differed tax asset or liability for the "temporary differences" arising in respect of its assets and liabilities, operating loss carry forward and other credits
b. Define deductible temporary differences and taxable temporary differences in a similar way.
c. Determine deferred tax assets in essentially the same manner.

Some key differences may arise when an entity adopts IFRS when accounting for income taxes:

i.Requires recognition of deferred taxes for temporary differences, that arise on the translation of non-monetary assets that are remeasured from local currency to the functional currency using industrial cost and secondly resulting from changes in exchange rates.

ii.Requires recognition of an income tax asset or liability when a temporary difference arises on the intercompany transfer of assets.

iii.Addresses the treatment of deductible stock-based compensation.IFRS caps the deferred tax asset at the intrinsic value of the award at the state of measurement.

iv.Not permit an offset of income tax assets and liabilities of different taxable entities within a consolidated group, unless there is a legally enforceable right to offset and the entities intend to settle theses assets and liabilities simultaneously.

IFRS treats the initial recognition of a previously unrecognized income tax assets as an adjustment to the estimated average annual effective income tax rate used in determining the interim period tax expense. IFRS requires deferred taxes to be measured at the tax rates that are expected to apply or the liability is settled, based on tax rates and laws that have been enacted or substantially enacted by the balance sheet date.

(3). Computation of taxable income payable:

The determination of taxable income likely will not be different under IFRS. This is because taxable income is not directly linked to income determined for financial statement purposes. The taxpayer is free to adopt any method that is consistent with the income tax act, established case law principles and well accepted business principles. Adopting IFRS could affect corporate income tax calculations that rely on balance sheet amounts.

METHODOLOGY

The paper is both theoretical and empirical. Theoretical aspect of the paper reviewed the experience of some selected nations who have adopted International Financial Reporting Standard with a view to study the impact of the system and the benefit they derived. This is also with a view to integrating such experience into Nigerian reporting system. Purposeful and stratified sampling methods were employed to select the samples so that varying experiences can be garnered from the nations selected. The selected countries are:

(1)EUROPE: As reported by Oracle White paper (2008),the most-notable progress has been in Europe. The European Commission in their published document "EU Financial Reporting Strategy: The way forward proposed that all publicly listed companies prepare their consolidated accounts in accordance with International Accounting Standard by 2005.More than 9,000 listed companies are now using IFRS when generating their consolidated financial statements. In addition, member states of the European Union (EU) allow companies to use IFRS for corporate income tax statements. Companies in Europe are permitted to implement IFRS as local Generally Accepted Accounting Principles guidelines have converge with IFRS.

(2)UNITES STATES: With the success recorded by European Union in implementing IFRS, United States took a step to merge United States and IFRS.Out of 11,000 companies whose securities are registered with the US Securities and Exchange Commission (SEC), about 1,100 are non-US companies. Since the implementation in 2005, non-US companies have been allowed to submit their financial statements to the US SEC in compliance with either US, GAAP or IFRS as they have been converged. According to the decision by US SEC, the two sets of standards could be completely merged by 2012. Oracle White paper (2008) reported further that the US SEC's decision could put a shine on the image of the United States in the global capital markets, improve capital raising opportunities for companies, and provide better comparatibility of financial statements for investors. This is intended to improve transparency rather than enforce compliance, as it allows for some judgments by implementers.

(3).CANADA: The Oracle White Paper(2008) reported that in 2005,the Canadian Accounting Standards Board announced a directional change to IFRS In 2007 the Board established a fixed deadline of 2011 for Canadian companies to adopt IFRS for financial reporting. For published listed companies, IFRS will be required for interim and annual financial statements relating to the fiscal years from January 1,2011.Canadian private companies and nonprofit organization are not required to use IFRS, but are permitted to adopt IFRS after 2011.

(4) OTHER COUNTRIES: According to Oracle White Paper, the regulatory bodies in Armenia, Costa Rica ,Kuwait, Peru,Australia and South Africa have mandated reporting from all publicly companies to be based on IFRS from 2005.International Organization of Securities Commission has recommended that the world's regulators permit companies to prepare financial statements based on IFRS for cross-border financial statements based on IFRS for cross-border offerings and listings. The International Accounting Standard Board has set a project to merge Japanese GAAP with IFRS. Turkish Accounting Standards Board implemented IFRS in 2006.Since 2006 Turkish companies listed in Istanbul Stock Exchange are required to prepare IFRS reports (Ahmed, 2010).

CHALLENGES FACED BY COMPANIES ON IMPLEMENTATION OF IFRS

Financial reporting systems must be amenable to change so that finance professionals can respond to investor and analyst with confidence. According to Oracle White Paper (2008) most companies are able to adopt a new accounting standard, but a truly successful transition depends on a company's ability to provide full audit trails, variance analysis, and reconciliation of prior standards to satisfy internal and external inquiries. The Oracle White reported the following challenges encountered by countries that have implemented IFRS:

(1). Evolving International Standards: The world's biggest companies have not reached true standardization and comparatibility. International Accounting Standard simplified the compliance landscape in Europe, but in some countries exceptions and rules modify the standards. Reporting environment will continue to change as the market and investors react to changes in how financial results are delivered. International standards will change also as governing bodies amend policy, set new standards and adjust regulation processes.

(2).New Standards introduces discrepancies: IFRS have created surprising challenges for those who prepare and require financial statements. Management of large corporation are concerned with learning how the new accounting rules will affect their companies reported earnings, tax liabilities, and the shape of the balance sheet discrepancies will simply occur between reports based on IFRS and those based on local Generally Accepted Accounting Principle (GAAP) due to change in accounting policy or in the method of measurement. Companies spend considerable effort in an attempt to reconcile results achieved with different standards.

(3). Multi-GAAP Reporting: When a company complies with the specific accounting policies and procedures required by IFRS, they need to simultaneously continue reporting based on GAAP requirements. This multi-GAAP reporting requirement makes implementation of IFRS challenging. Many companies in the EU and other areas will continue to use local GAAP in their reporting for tax purposes, but prepare financial statements based on IFRS.

(4). Management Reporting: There is the challenge of accurate and effective management reporting. Statutory reporting must be aligned with management reporting, and management must understand the impact that IFRS has on performance management and key performance indicators. Forward-looking statements of performance based on IFRS have to be consistent with budgets based on the operational GAAP.

HYPOTHESES TESTING EMPIRICALLY

Three hypotheses listed below were tested: Questionnaires were administered to fifty Accountants/Financial Directors of Fifty publicly quoted companies. Stratified statistical sampling method was adopted in picking the companies to ensure all the industries are represented in the work. Twenty banking institutions, ten insurance institutions, five from beverages, two from breweries, three from petroleum industry. Five linker scale of strongly agree, agree, strongly disagree, disagree and undecided were the respondents choices. Chi-Square statistical method was used to analyze the result of the survey.

1. **Hypothesis 1**: IFRS will not impact segmentation reporting and transparency reporting of financial and management reporting for planning, control and decision making in Nigerian economy.

Forty eight responses were received from the various respondents, and the statistical analysis is as follows:

TABLE 1 STATISTICAL ANALYSIS OF FIELD WORK ON HYPOTHESIS 1

Category	Observed O	Expected N	Residual
Strongly Agree	3	9.6	-6.6
Agree	2	9.6	-7.6
Strongly Disagree	18	9.6	8.4
Disagree	24	9.6	14.4
Undecided	3	9.6	-6.6
	48		

STATISTICS

Category	Observed O	Expected E	O-E	$(O-E)^2$	$\frac{(O-E)^2}{E}$
Strongly Agree	3	9.6	-6.6	43.56	4.54
Agree	2	9.6	-7.6	57.76	6.01
Strongly Disagree	18	9.6	8.4	70.56	7.35
Disagree	24	9.6	14.4	207.36	21.60
Undecided	3	9.6	-6.6	43.56	4.38
	48				43.88

Decision: At the level of significance of 0.05 with the degree of freedom 4, the computed shows a statistical figure of 43.88 which is higher than the tabulated figure of 9.49.The result proves the opinion of the respondents that IFRS will impact segmentation reporting and transparency reporting of financial and management reporting for planning, control and decision making in Nigerian economy. With International Financial Accounting Standard in place, it will integrate the management accounting information system of the company for policy formulation, planning, control and international investment.

2. **Hypothesis 2:** IFRS will not impact Nigerian companies to have access to finance in the international capital market for global business integration

Out of the forty eight responses from the respondents, one was nullified for inconsistency in ticking by ticking double in the options. Below shows the statistical analysis of the survey:

TABLE 2: STATISTICAL ANALYSIS OF FIELD WORKM ON HYPOTHESIS 2

Category	Observed O	Expected N	Residual
Strongly Agree	1	9.4	-8.4
Agree	1	9.4	-8.4
Strongly Disagree	20	9.4	10.6
Disagree	24	9.4	14.6
Undecided	1	9.4	-8.4
	47		

STATISTICS

Category	Observed O	Expected E	O-E	$(O-E)^2$	$\frac{(O-E)^2}{E}$
Strongly Agree	1	9.4	-8.4	70.56	7.51
Agree	1	9.4	-8.4	70.56	7.51
Strongly Disagree	20	9.4	10.6	112.36	11.95
Disagree	24	9.4	14.6	213.16	22.68
Undecided	1	9.4	-8.4	70.56	7.51
	47				57.16

Summary:
Chi-Square= 57.16
Degree of Freedom= 4
Level of Significance=0.05
Tabulated= 9.4

Decision: At the degree of freedom 4 and level of significance 0.05, the chi-square statistical figure is 57.17 higher than the tabulated of 9.4 meaning that the respondents belief that IFRS will impact Nigerian companies to have access to finance in the international capital market for global business integration. Therefore adoption of IFRS in Nigeria will give Nigerian companies access to finance in the international capital market for strategic global integration of Nigerian companies

3. **Hypothesis 3**: Aligning Nigerian SAS tax standards with IFRS standards will not have positive impact on computation of tax and liabilities on Nigerian companies for the interpretation of their tax system for decision making in the international market.

Forty eighty responses were received from the respondents. The following analysis shows the result of the survey.

TABLE 3:STATISTICAL ANALYSIS OF FIELD WORK ON HYPOTHESIS 3

Category	Observed O	Expected N	Residual
Strongly Agree	4	12	-8
Agree	3	12	-9
Strongly Disagree	25	12	13
Disagree	16	12	4
	48		

STATISTICS

Category	Observed O	Expected E	O-E	$(O-E)^2$	$\frac{(O-E)^2}{E}$
Strongly Agree	4	12	-8	64	5.33
Agree	3	12	-9	81	6.75
Strongly Disagree	25	12	13	169	14.08
Disagree	16	12	4	16	1.33
	48				27.49

Summary:
Chi-Square =27.49
Degree of freedom=3
Level of Significance =0.05
Tabulated=7.82

Decision: At a level of significance 0.05 and degree of freedom 3, the computed/critical value is 27.49 higher than the tabulated figure of 7.82.This means that Aligning Nigerian SAS tax standards with IFRS standards will have positive impact on computation of tax and liabilities on Nigerian companies for the interpretation of their tax system for decision making in the international market

CONCLUSION

With the implementation of IFRS by developed and some developing nations, Nigeria has no option than to implement it and converge it with the local standards.Though there may be implementation challenges, but with proper planning, implementation and control, the financial reports can easily be aligned with the international standards. The implementation of IFRS will ensure segment reporting of management accounts for inflow of direct investment; it will give room for good corporate governance for transparent reporting of financial statements. The Nigerian companies will have direct access to finance in the international capital market for strategic expansion of business in the global village. Nigeria will be able to align Statement of Accounting standard 19 on Accounting for taxes with International Financial Reporting Standard for the adoption of the global principles on taxes. Nigerian Statement of Accounting Standards are partly out of date and not comprehensive enough to prepare high quality financial statements that will compete with international standard under IFRS. A global reporting language will ensure that investors funds are moved easily within the global market.IFRS implementation in Nigeria will enhance investors' confidence about investing in Nigeria economy. IFRS will give opportunity for comparatibility of financial statements prepared all over the world for cross-border investment.

RECOMMENDATIONS

(1).Nigeria should waste no time in the adoption of IFRS because Nigerian Accounting Standard Board will be exposed to the best international practices so that they will be able to establish improved reporting practices in Nigeria, and attract foreign direct investment. Adoption of IFRS in Nigeria will enable Nigerian companies prepare financial statements that are acceptable in the global markets. Capital can be moved freely within regulated markets.IFRS will enable globalization of business to create new opportunities for businesses all over the global economy.

(2).Though implementation of IFRS will pose challenges as experienced by other countries, but the regulatory authorities/bodies should assist with policies that will ease out challenges. For example the challenges about segmentation reporting that has not been in operation in Nigeria will mean that there must be a strategy in place that will introduce segmentation reporting without affecting ability of management to make decision. There will be a challenge of how to adopt the global tax standard in the Nigerian tax environment with different tax Acts and practices.

(3).Nigeria business regulatory authorities should ensure the implementation and practice of good corporate governance with the full integration of the pillars which are transparency, independence, fairness and accountability. This will make the adoption of IFRS very easy to implement.

(4) Nigerian companies should integrate their businesses in the global village by getting listed in the international financial market for easy practice of IFRS.

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MODERN PORTFIOLIO THEORY (MPT) AND FINANCIAL ECONOMICS: A THEORY OF LESSER TURF?

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ABSTRACT

This Paper attempts to explore the building blocks of the Modern Portfolio Theory (MPT) and show their immediate relation to the neoclassical 'more heat than light' paradigm. By treating the investment and valuation aspects and consequences of MPT, it raises concerns over the self-fulfillment (performativity) of MPT. MPT regards socially-driven pricing processes occurring on capital markets as if those were sterling naturally occurring stochastic processes. Thus instead of substantive economic description it concentrates on their numerical representation and proceeds to provide normative implications from this one-sided view. While such research paradigm has a rightful degree of validity and (perhaps buoyed by its performativity effects) has proven itself fruitful in the context of liquid capital markets, past decades have witnessed its over-extension to other investment fields where its mechanistic-laden statisics-intensive world-view is clearly inapplicable (particularly in respect of illiquid assets). This resulted in gross mispricings of such assets with direct ramifications of it contributing to the recent financial crisis. While the abuse of MPT paradigm (e.g. evident in valuation dilemmas during the securitization era) can't be directly laid at the door of the current toxic assets and mispricings debacle it is a much-overlooked contributant and the contention is made that MPT-based valuation and investment theory should not hold the monopoly over pricing processes in the markets other than immediate liquid capital markets (For example, it is not appropriate for valuing illiquid (private) business equity, finding enterprise (as opposed to liquid equity) value etc). Since many investment researchers are in the mode of thinking that MPT is the only available investment and valuation perspective, this Paper also briefly describes attempts to develop and institutionally implement other valuation paradigms stemming from neoclassical and Keynesian Economics, It urges their continuation and real world applications as a promising remedy against recent breakdown in capital pricing processes.

KEYWORDS

MPT, Finance, Economics, MPT, Investment analysis.

INTRODUCTION

"In this age, which believes that there is a short cut to everything, the greatest lesson to be learned is that the most difficult way is, in the long run the easiest."

Henry Miller

GENERAL ASSESSMENT OF MPT FRAMEWORK

Drawing inspiration from the pointers of the famous economic measurements policy pronouncement of recent times, delivered by Mr. Vladimir Putin, the Prime Minister of Russia, at the Davos World Economic Forum[1], this Paper analyzes the pre-analytical foundations and macro-economic impact of the Modern Portfolio Theory[2] (MPT) tenets, on which much of the present Western investment theory and financial economics is erected. Our general inference is that while the former are tautological at their core and treat capital investment pricing processes as if those relate to an impersonal network of natural oscillators, the latter are perceivably dangerous in spite of the belief in the strong 'performativity' (self-fulfillment) of MPT (McKenzie, 2006). Performative the MPT may be, but this performativity comes it a cost: as year by year it only removes the universe of traded securities further away from the sustainable investment patterns which can only be grounded in a long-term commitment to socially-useful investment and in a long-term vision of the performance of real (non-financial) economy. Disregarding this, and with the wide application of MPT now the norm well beyond the initial universe of liquid securities for which it was originally conceived, the principal macroeconomic consequence of all that is to usher in real economic projects not on the merits of their social benefit but on clearly subordinate terms: this is the unavoidable corollary of computing their efficiency with reference to only the liquid security markets (just from them can we glean data needed for applying the MPT view). Thus, opaque social processes that go on the trading floor, accompanied by the huge scale of speculation and liquidity effects (Plantin, Sapra & Shin (2008)), set the pace for the development of real economy and involve it into unnecessary competition with the whirlwind of 'paper wealth'. Moreover, by focusing on the inherently short-term 'single-period' view and static solutions (as in CAPM model), MPT fosters or espouses the preference for short-term (and even ex-post!) anchoring of expectations. Since there is a fundamental mismatch between the long-term orientation of real investment projects within the productive economy and forceful short term drives within the universe of liquid securities, this effect of MPT is a very formidable and generally overlooked effect: namely, wide recognition of the MPT-based investment theory outside of the immediate province of stock trading activities explicitly presupposes the trust in securities markets as efficient regulators of all real economic activity. Therefore, the universal pricing (and feasibility analysis) linkage stretches unidirectionally from the universe of 'paper wealth' to the real economic undertakings, whereas the effects of this laissez-faire worldview have been widely explored in Keynesian economics, not least in the famed Chapter 12 of The General Theory written by J.M. Keynes himself[3]. However, should not the linkage run in exactly the opposite direction if economic and investment processes are to be made efficient for the general public? At long last the evidence gradually emerges that indiscriminate use of MPT can also be 'counter-performative'. Indeed, the recent securitization debacle proves that pricing of illiquid assets can't be done on the principles on which liquid securities are priced and invested into.

That MPT fails to see the public and social dimension of the processes it describes and equates/confuses them with the bona fide natural stochastic processes can be posted as the major methodological shortcoming of this worldview. At this point some might object on the grounds that a mere critique of a theory works no purpose, that a theory is defeated not by playing the role of devil's advocate, but by proposing a better and more useful theory, and, when no rigorous alternative theory is forthcoming, it is better to keep mum.

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1 "[These are colossal] disproportions that have accumulated over the last few years. This primarily concerns disproportions between the scale of financial operations and the fundamental value of assets, as well as those between the increased burden on international loans and the sources of their collateral. …
In effect, our proposal implies that the audit, accounting and ratings system reform must be based on a reversion to the fundamental asset value concept. In other words, assessments of each individual business must be based on its ability to generate added value, rather than on subjective concepts. In our opinion, the economy of the future must become an economy of real values. How to achieve this is not so clear-cut. Let us think about it together."
From the Address of Vladimir Putin, Prime Minister of Russia, at the Davos Economic Forum (February, 2009)

2 This body of knowledge to which we refer as 'MPT' is well synthesized in such works as Rubinstein (1973) and Rubinstein (2006).

3 And we hardly need to belabor his conclusion about the lack of "evidence from experience that the investment policy which is socially advantageous coincides with that which is most profitable."

Except that there are serious academic alternatives, which may prove worthy for the investment analysis in the context of real productive economy (while confining MPT to work in the context of liquid securities markets, where it still seems to perform well). The reason they have been ignored in the past has much to do with the accidents of time, geography and language. Few serious economists of today, even if they are fluent in Russian, would consider it a reputable pastime to read anything that came from academics of the Soviet era. Fusty Marxists -- you would think! Well, not all of it; and we beg to reserve an exception from this sweeping indictment for economists associated with the school of 'Mathematical economics,' a label which attaches to research published in Economica and Mathematical methods (est. by the Russian Academy of Sciences in 1965) – a periodical which was then boldly exploited for smuggling anti-Marxist ideas into general economic discourse. This school of thought was under development since 1950 and its scope of interests paralleled those which now go under the name of 'investment theory' and 'assets pricing' -- subjects whose serious exploration began with V. Novozhilov and L. Kantorovich[4], who are widely regarded as tutelary figures by proponents of the 'Mathematical Economics'. Though the works of L. Kantorovich have enjoyed a substantial measure of recognition in their own time -- with the Nobel Prize in 1975 (jointly with T. Koopmans, whose insights into linear programming helped H. Markovitz shape MPT) -- the output of the investment analysis & valuation school of thought that he pioneered slips from the field of vision of most international Financial Economics researchers – to the point that they are virtually unknown outside of the former Eastern block countries. Two circumstances have conflated with the result of driving those ideas down into the limbo where they presently repose (with occasional airings in Russian language): Firstly, the investment ideas of 'Mathematical Economists' have never been put to good use in practice. Although their theoretical development has been encouraged by the central planning authorities, the latter have never seriously contemplated their full-scale deployment: for example, while the Russian Academy of Sciences had been commissioned to prepare a far-reaching blueprint for implementation of integral efficiency-based investment analysis and valuation programs which appeared in 1983 under the name of "The Complex Technique", practical rolling-out of these proposals stalled and never reached the stage of approval by the community of business decision-makers on the ground whose ingrained 'socialist' interests of doing things the way they are done militated against any investment efficiency considerations and threatened their status quo. This contrasts with belated but enthusiastic reception of MPT by the institutional investment industry in the U.S. after the mid-1970s, where profit-seeking motives were natural allies to any efficiency-based schemes promising either greater returns or cost-cutting (Bernstein, 1992). Secondly, the dissolution of USSR with the attendant period of hyperinflation and switch-over of the economic modus operandi towards the despondent slough of short-term goals and the colonial raw-resource-extraction-based development model, coupled with the breakdown of funding for academia, all proceeded to deal a final blow to finding the nexus of the investment theory research along the lines of 'Mathematical economists' with business investment practice. Yet, some expertise in the area remains and renewed engagement with the subject is likely to be kindled anew considering that last year's collapse of the national securities markets has made it apparent that those can't be used along the lines advocated by MPT to support any investment analysis for projects related to real economy. (E. Neumann (2009))

Nay, one occasionally comes across attempts to marry the MPT paradigm with the 'Mathematical Economists' investment view. This is, of course, as realistic as trying to merge Christianity with the Muslim religion. (What is meat for the securities market is sometimes poisoning for the real economy, and vice versa). But nothing indicates that these paradigms cannot peaceably coexist side by side in normal times. To reiterate the point, MPT can exist as the viable investment paradigm within the confines of liquid securities markets. Yet, it also should leave the quarters of its counterpart's methodology undisturbed and refrain itself from spilling over into the real economic activity fabric which its tenets are poorly equipped to handle. To draw the notional divide between the powers and paradigms of liquid securities markets and the same for illiquid real economic projects – seems to be a sound research perspective.

And then a mischievous question arises: whose turf is bigger? I. Velez-Pereja (2008) reports that nearly 100% of all economic projects and entities in the world are not traded in any public securities markets. The exact proportion for the U.S. stands at 99.87%. So, why should those 99% of all economic activities take their cue from the paradigm entertained in the liquid minority lead[5]? Features of the liquid world that MPT paradigm describes (such as "sigmas", "betas", daily observed prices) are patently not the fixtures on their illiquid landscape.

A counter-objection to this dualistic view for the investment theories is that it will create arbitrage opportunities between the worlds. Yes, it may have so. But in the present day instability context, in what direction? -- one is tempted to ask. Going public or going private? One hopes, though, that the arbitrage traffic will be in both directions. Diversity is the name of the game – as MPT proponents are often known to think. So, in the current environment, denying diversity and snubbing alternative investment & valuation theories that may re-emerge in the preponderant world of illiquid real capital– is hopefully not in their cards if they choose to play the game fairly.

Our bet is that, if these real-capital investment theories evolve, they will have more than passing resemblance to the Investment theory of the "Mathematical Economists". But needless to say, given the prestige in which MPT is still held due to its past track record of efficiency, there are few signs of challenge to the global intellectual monopoly of MPT as yet.

ANALYSIS OF PARTICULAR ELEMENTS IN THE MPT FRAMEWORK

Below follows a list of comments on specific jarring points and methodological non sequiturs which proponents of the 'bigger turf' investment theory wish to highlight within the MPT paradigm, without any intent of compromising the formal elegance or logical coherence of its edifice, and mostly confining their comments to the irrelevance of its pre-analytical vision for the wider investment world connected with the real economy:

RISK AND RETURN CONCEPTUALIZATIONS

As Mr. W. Buffet once observed, the conceptualization of investment risks as a second-moment of distribution ("sigmas") is so ludicrous as to be largely removed from reality beyond the stock market (Galasyuk, 2007; Tzarichin, 2005). Indeed, if you make use of the first (expected returns) and the second (dispersion) moments of distribution, why not go whole hog and use the third and fourth moments as well? Is it because on paper and screen one can only fit two variables in two dimensions to produce beautiful doodles? Such doodles look convincing in the context of liquid securities markets with observed daily prices, but the further you go beyond this environment the greater the chance of discovery that such understanding of crucial variables misses the point. Risk is what can happen in the demand for production of real economic entities. And the extreme scenarios of what can happen (e.g. leading to the cessation of an entity as the going concern) are by far the largest contributors into the relevant picture of risk. The knowledge of "sigmas", even if (in rare cases) available from a past distribution sample of traded quotations, conveys no such information[6]. And how can such formal statistical information adumbrate a vision for the future?

There is some justice in thinking that portfolio optimization schemes a-la Markovitz is merely an exercise in mathematics based on the belief that price information and its distribution diagram is a 'sacred warehouse of vision' (cf. technical chartists are no different in this) and conveys a real blueprint for the future, not noise.

However, social processes of capital accumulation can't be made clearer and more secure by expressing them as random variables in a fashion after natural processes! (The belief that the approach for studying natural and social processes should be one and the same is called 'methodological monism'.) For once, the reflexivity theory of G. Soros is methodologically spot-on in its critique (though Soros can't be given credit for originating it; he is a mere vigorous exponent of similar views that existed long before him). It views such constricting research paradigm (MPT) as, at best, an exercise in computerized tautology which merely

4 See his biography on http://www.geocities.com/econ_545not/kantorovich-lecture.html

5 This question is not novel: it was also posed in the works of Robert Slee (e.g. Private and public markets are no substitutes (2005), reprinted in the Voproci Ocenki Quarterly (2Q, 2007) published by the Russian Society of Appraisers).

6 Because of the survivorship biases and self-reference within the statistical processes going on in the stock markets, statistical past is blind to what can really happen in the future. As to the 'implied volatilities' from the options trading side, those convey only the implications of supply and demand processes on the options markets coupled with the premise that a particular options pricing formula is right (self-fulfilling, performative) (David McKenzie (2007)). This is another example of methodological self-referral within the universe of 'paper wealth' betraying the lack of theoretical interest to think strategically about the processes in productive economy and conceive risks in real (non-statistical) terms.

serves to impose an ideological straight-jacket of statistical, not substantive, inquiry into the processes of capital accumulation dynamics. Suggestively, some proponents of MPT (e.g. W. Sharpe in his Nobel lecture) should be given credit for clearly opining that investment schemes based on MPT are plain 'normative'. One particular manifestation of this is in that they impute decision making variables (like expected returns) to an investment process based on considerations of some formal model (disregarding real [substantive] economic drivers of the investment process in question). Whether those then become self-fulfilled or not is another matter. The ultimate hedge to this problem is always that the end-result is a random variable.

On balance, such backward numerical –statistical orientation of MPT-style research and models has remarkable pro-cyclical qualities when it gets self-fulfilled. It results in the self-fulfilling chain of expectations, wherein chancy high past returns serve to ground expectations of high returns in the future, and those, in turn, convey the hope of yet higher expectations for the more distant future. And as the market walks on these airy circles of mechanically formed hopes, past reality and future expectations feeding and amplifying on each other, the boom/bust process visibly sets off. In particular, the Capital Assets Pricing Model (CAPM) has a potential to pump-prime this process for high beta stocks, whose accidental statistical feature of having higher relative correlations with 'the market' makes them recommendable as good growth investments. And so they grow self-fulfillingly on nothing more fundamental than a statistical quirk, if investors put enough trust in that model.

FINANCIALIZED STOCHASTIC ROOTS OF THE MPT PRICING MODELS (CAPITAL ASSETS PRICING MODELS -CAPM)

The development of MPT via CAPM-like models had, for example, an insalubrious practical import. To give a semblance of assurance about the sterling nature of their research, the developers of this paradigm conflated MPT- style research with the 'positive economics' and then propelled it into perennially high plateaus of real-life applications. W. Sharpe (1963) came up with a regression-based CAPM which tries to explain capital accumulation dynamics (rates of return) by mere correlation, not causation, with the general market index. At the heart such explanation is deeply circular and tautological (as admitted by Rubenstein, 2007): 'explaining' individual stock returns by the central lead of an index misses the broad picture that the index (in the first place) is nothing but an aggregation of individual stock returns[7]. Not being satisfied with such 'explanation' himself, W. Sharpe (1964) proposes a static-theoretical equilibrium based CAPM wherein the (normative) assumption about the fundamentalism and homogeneity of investor's expectations was taken to be so ludicrous as to have held up the publication of his manuscript by the editors of The Journal of Finance for a while (Bernstein, 1992). On such ideal capital markets as are assumed in the work no trading activity will ever take place in the first place! That much can be said in favor of the positive, or descriptive, implications of this model[8]. The only wide vision of a capital market that the CAPM model (both in its regressionary and theoretical embodiments) possesses is that of a self-contained inter-linked universe of stationary-stochastic random oscillators, which is how securities are conceptualized there. Not a word is said about the real economy on which this self-contained universe stands. For that reason, what seems to be explanation or prediction of the trends in separate streams of capital (stock prices) is in fact a veiled tautology. The rampant use of such models as CAPM or APT has the consequence that purveyors of statistical data inputs to these models acquire disproportionate influence and control over market behavior: it has been observed that making econometrics is no better than making sausages. Another side-effect of this view results in investors losing awareness that capital markets is a serious business, not casino-sphere: Expected returns come from labor applied to real and socially useful economic ends within the context of vibrant real (not paper) economy, not from assuming some abstract statistical risks. Expected (sustainable) returns from the game of 'Snap and Musical chairs' are essentially zero (and less than zero after the transaction costs are taken account of). After all is said, it is pity that the gamblers' outlook has come to dominate the modern financial economics which, moreover, and by virtue of high esteem in which it is held, makes this outlook contagious for real investment processes in the wider economy lying beyond the oscillatory world of securities markets.

MISSION CREEP TO VALUATION OF REAL ASSETS

Another problem in the world of investment-financial valuation (IFV) arises from the marriage of convenience between the rates or return based on CAPM and discounting models rooted in the original Williams' Dividend Discounting Framework. It is said that such marriage experiments have come on stream due to attempts of one W. Fouse working with investment bank Wells Fargo in the 1970s (Bernstein, 1992). Subsequently, such technical approach to valuation of stocks and entities as was developed by him has become mainstream in the world of Investment financial valuation and its purity is now carefully policed in the majority of international consulting and accounting firms. But it is unclear how such an unwieldy marriage of opposites came to be seen viable in the first place. CAPM model is explicitly a single-period (i.e. short term) model of ideal equilibrium markets working under the assumption of homogeneity of expectations and similarity of holding strategies. It is rooted in the logic of speculative portfolio optimization such that its premises and results would seem reasonable only to diversified financial investors. DCF analysis, on the other hand, is explicitly a long-term analysis needed for those who assess the efficiency of real investment projects (businesses) over their entire lifetime. It regards businesses (projects) as real economic operating entities working to plan, not as random oscillators of returns. After all, long-term and short-term do not sit well together, as Keynes had ample opportunity to observe in his classical Chap. 12 of The General Theory which proves that short term 'animal spirits' of investors almost always bury long-term rationality under the fall-out from the game of 'musical chairs'. And adding further fuel to the fire, MPT goes a long way in making short-term terms of reference ascendant within DCF valuation framework, as it arbitrarily projects short-term ('single period') returns into the future, thereby enfolding the assessment of longer-term cash flows into the tyranny of short-term expectations. This can happen in no other way, unless the 'single period' analysis in CAPM coincides in its intervals with the length of the entire DCF forecast period (e.g. 10-year "betas")[9]. Developers of MPT models have at least been consistent in their logic, if limited in the proper scope of their economic vision (which stretches no further than liquid [paper] economy due to drawing equivalence between the social institution of capital markets and a grand casino of bona-fide oscillators) and less than clear-sighted about the social and macro-economic impact of the wider use of their theories. As to this wider use, in this mistaken endeavor to proselytize MPT into areas of economic measurement practice laying further afield than where the idea of random stock-oscillators may seem plausible, the Matchmakers of Marriages (like Fouse) really neglected the integrity of logic and overestimated the elasticity of initial assumptions. Thus, we are left with a gamut of illiquid un-traded assets valued after the fashion of those assets which circulate in the casino-sphere. Private equities, intangible assets, real property – all are valued by analogy with liquid securities these days; and the case is not limited to mere quibbles about incorporating time-preference into DCF valuations: indeed, the entire universe of fuzzy assets such as 'real options' is drawn as rabbits from the hat of this MPT research program, and an attempt is invariably made to value all those 'as if' they are financial options etc. Fair to say, applying this valuation strait-jacket of the modern financial economics creates not only gross mis-pricings and stock market driven pro-cyclicality in the area of real economic assets, but also generates a semblance of the veritable cornucopia of new assets and capital, in line with the pro-rent orientation of the modern valuation practice[10]. And while taxpayers' pockets get lean in allowing governments to buttress and defend the value of those fictitious toxic assets, to an impartial observer this only seems bemusing to observe the vigor with which free markets –

7 The idea of circularity is also found to be a pervasive feature not only of MPT by also of other 'modernist' approaches to social sciences, see Quinn (2007).

8 Implications which no one, moreover, can check, since CAPM is empirically check-proof. As W. Sharpe avers: "We do not see expected returns ; we see realized returns. We don't see ex ante measures of beta; we see realized beta" (quoted in Bernstein , 2007, p. 172). – Ultimate sleight of hand for an answer, indeed.

9 We beg not to be interpreted as proposing to throw the baby away with the bathwater, only that the baby sits in its proper cradle: the 'integral efficiency (or DCF) calculus' can be performed either in a liquid market or in a non-market setting. Moreover, any specific assumptions of MPT and of the broad ideal market of oscillators have nothing to do with the applicability or general-purpose credibility of this analysis. As a general-purpose calculus it is in itself value-neutral -- so long as we take care to ask: efficiency, but whose efficiency? (see, Wolff (2007)).

Essentially, such long term DCF analysis which was also integral to the vision in the Complex Technique developed by the 'Mathematical Economists' (1983), reflects individual investor–specific (or public policy) assumptions, expectations and preferences, and these are not necessarily identical to those expectations which, implicit in its observable prices, would prevail on the liquid securities market. In reality, there is no such think as homogeneity of expectations.

It is suggestive that, usually, investors undertaking DCF valuations are long-term productive-oriented, not financial, investors. They are not fully diversified and would consider diversification an inopportune strategy: if all were to follow the prescriptions of MPT, the investing world would be constituted entirely out of financial investors, and strategic investors would not get a chance under the sun. Essentially, the behavior of the latter group of 'anchored investors' is condemned as irrational under the MPT worldview, while pricing implications of the MPT models financially penalize the efficiency of their long-term strategies in favor of footloose financial investors. Notice what J.M. Keynes (1936) said on a similar account: "It is an inevitable result of an investment market organized along the lines described. For it is not sensible to pay 25 for an investment of which you believe the prospective yield to justify a value of 30, if you also believe that the market will value it at 20 three months hence."

10 Contrast it with anti –rent stance of classical economic systems, especially one by Henry George.

on the remaining un-manipulated pockets or freedom there-- struggle to unseat the ostensible ideology of 'free markets' supported in its practical applications by the loosening grip of the modern financial economics. It is a forceful demonstration of the power of ideas[11]!

THE EFFICIENT MARKET HYPOTHESIS (EMH)

P. Samuelson once observed that "you could have 98% of the money in the market that is irrational, and you could still have the Efficient Market Hypothesis" (Bernstein, 2007). Chance variations, liquidity effects (fall-out from speculative swings), plain noise masquerading as receipt of new information – all are here to daily throw their spanners into the works and investors only welcome them because they create profitable swings (trends, bubbles) in which the easy buck will be made. Thus, the business of sowing seeds to reap fruits from uncharitable nature (which is what the serious business of investment is all about) is temptingly superseded by the sweet poison of treacherous speculations. The figment of imagination that an empirical test is capable of vindicating the Efficient Market Hypothesis (EMH) has also contributed to assure us of the efficiency of whatever liquid capital markets do. A lulling worldview, and too easy to believe. But the letter "H" is not there by chance in the 'EMH': 'H' hedges it, when you skate on the thin ice of this belief. Ideologically, the implications of EMH for the capital markets' professional valuation (PV) mandate can hardly be more emasculating: values are becoming conceptually based on prices in both PV and Investment Financial Valuation (IFV) fraternities -- until widely shared conviction emerges that bubble is no bubble. Essentially, the belief in EMH puts paid against the relevance of the pro-active role played by the valuation professions (PV and IFV[12]). It is also responsible for the poor institutional regulation of the PV and IFV professions and for treating their functions as 'private business', not as a 'socially important infrastructure'. Left to no public control and having no sense of appreciation of their wider duty as defenders of public interest and macroeconomic stability, practitioners of such valuations (devoid of their true authority in the capital market pricing processes and having to depend on commercial contracts for livelihood) find it hard to buck against the price trend and proceed to swim with it: feeding recent prices into their statistical valuation models and consequently justifying values by prices, not basing prices on values. Such a tautologically 'innocent' valuation activity has brought about a deluge of mispricings with respect to complex derivatives (like credit default swaps- CDS), let alone estimations for non-traded assets. Understandably, taxpayers will pick up the tab for these mis-pricings to the tune of $800 bln. yearly -- for CDS alone (A. Murphy, 2008). This is what happens when MPT ideas are applied in expansive fashion beyond their home base and cloud the vision of the professions.

Indeed, the boundaries of what constitutes efficient markets have grown exceedingly blurred so that MPT is now deemed to be applicable to virtually all markets: even property markets; even markets where no trades have been known to take place for a long time (like valuation of private businesses, and of government held entities) are not exempt.

F. Black in his presidential address to the American Finance Association (1985) had this to say: "However, we might define an efficient market as one in which price is within a factor of 2 of value, i.e., the price is more than half of value and less than twice value. The factor of 2 is arbitrary of course. Intuitively, though, it seems reasonable to me, in the light of sources of uncertainty about value and the strength of the forces tending to cause price to return to value. By this definition, I think almost all markets are efficient almost all of the time. "Almost all" means at least 90%"

(In terms of this eyebrow-raising admission, the 2008 drop in the Dow Jones Index from about 14000 to little below 7000 –can be taken as a prima-facie evidence of market macro-inefficiency). We have at least to be grateful to Fisher Black for clearly distinguishing between short-term price and long term sustainable value, and for being as frank as possible in articulating his vision of proportions with conceptual numbers in hand. But many market efficiency theorists refuse hypostasizing the concept of value at all. Some go as far as to say that price and value are explicitly one and the same concept (Lawson, 2005). And most of the investment-financial valuers (IFV analysts) have already bought into this blatantly positivist view, whereas Professional Valuers[13] and their standards (like the International Valuation Standards, European Valuation Standards etc.) maintain that value is the prediction of the most probable price likely to be obtained as at the date of valuation (IVS, 2007). Thus, the concept of value becomes secondary to their work and they are merely concerned with justifying prices by prices. In their hands, valuation degenerates into a purely tautological process in which 'what is' is right. The broad institution of various capital markets thus appears to be deprived of any legitimized 'steam governor' in the form of an anti-noise pro-value valuation infrastructure. Investors walk on short-term noise thinking that they digest true and relevant information and whoever controls this information flow controls the pulse of the markets. Belief in the efficiency of the markets makes things even worse. Unless a sustainable valuation infrastructure is developed for capital markets (for suggestions on it see, Artemenkov (2009)), the quotient of 2 from the above quotation from F. Black would appear to be a very optimistic one.

F. Black and other preeminent efficient markets theorists, like E. Fama, also make a point that we need noise traders, arbitrageurs and active portfolio managers to keep markets liquid and effective so that free-riding passive portfolio managers and index funds can take advantage of the resulting efficiency by buying into the market portfolio. But from where would this efficiency originate if those whom we think are exploiting inefficiencies are in reality trading on noise? It is said (Bernstein, 2007) that about 30% of institutional investors now commit themselves to versions of passive portfolio strategies, like index tracking. Here the words of J.M. Keynes might have a ring of one crying in the wilderness:

"I am in favor of having as large unit as market conditions will allow… To suppose that safety first consists in having a small gamble in a large number of different companies where I have no information to reach a good judgment, as compared with a substantial stake in a company where one's information is adequate, strikes me as a travesty of investment policy." (Keynes (1942), as quoted in Bernstein (1992)).

To modern investors' eyes trained in the wisdom of MPT and steeped in conventions to think on the micro-economic level, such a pronouncement might seem heretic. But, to invert the argument of EMH thinkers concerning the necessity for active traders, we need EMH proponents pursuing passive investments in order to make the sting of this travesty self-fulfilling. For surely, this EMH concept harnessed to 30% of institutional portfolios is not without its 'performativity': If liquidity is inflated at level speed into the deepest reaches of the stock markets far and wide on the globe, out it is sucked from those corners in equal proportion with the center. It is as if air-nozzles are directed at each stock-oscillator, and every nozzle is linked to a central compressor of liquidity regulated by the MPT software. For the oscillators, then, it is fair to say: together they stand, together they fall. In other words, amplification of pro-cyclicality (boom/bust patterns) due to the liquidity effects follows as a direct macro-economic consequence of wide practical application of the set of investing tools based on EMH & Tobin's Separation Theorem [the same arguments about liquidity effects are expressed but with reference to the fair value accounting concept in Plantin, Sapra & Shin (2008)] .

DEBT NEUTRALITY OF FIRM FINANCING POLICIES

Appreciating the fragility of EMH, we can then say the markets may not be wise, but at least they can be clever. Surely. That is what the no-arbitrage argument is all about—when it works. Modigliani and Miller (1958) were the first to draw attention to its importance and based on it proceeded to set out their views about irrelevance of capital structure for the value of a firm. A dazzling and impeccable piece of logic, and not without its lesson for debt-takers. For some obscure reasons, however, they backtracked on the attitude to their arguments in Modigliani and Miller (1963), where they introduced "a correction" now explicitly lauding the benefits of debt finance. As the tax shield considerations from debt have not been missing in their first paper (Modigliani and Miller (1958)) such a change of heart seems mysterious. However, what is truly myopic and mysterious in this otherwise beautifully written, mathematically and logically impeccable

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11 Proponents of MPT often claim that following the landfall of MPT on the pricing processes starting in U.S. in the 1970s, there is no evidence that public capital markets have become more volatile (Bernstein, (1992), (2007)). From this they draw inference about MPT being a good noble thing in myriad new ways benefiting the world. Doubtful this. But it does benefit institutional investors…. so long as the game of 'musical chairs' continues and governments proceed in force to throw billions of dollars into whimsically-priced chimeral assets and 'outright wagers' (as all currency derivates extant at the date of the Russian default in 1998 have been sweepingly held by one Russian judge, who in his binding ruling claimed that all derivatives –being essentially wagers -- are outside of the legal protection, thus giving lease and release to many Russian banks then heavily indebted on them. And under the Russian Law they essentially remain as such to this day). But increasingly, as the music again nears its final crescendo, it dawns upon many that the MPT -- an expensive product of elegant but hidebound rationale – will cost us dear. You may have self-fulfillment ("performativity") for 30-odd years -- only coming home to roost with a single spectacular backwash of counter-performativity on a subsequent year. Not an argument against the theory based on the notion of random oscillators, of course.

12 On the distinctions holding between the Professional Valuation (PV) and Investment financial Valuation (IFV) professions and their mental perspectives see Michaletz & Artemenkov (2007), Artemenkov & Mikerin (2008).

13 Who by virtue of their line of work are mostly concerned with valuing illiquid assets, such as intangible assets and private capital, on thin markets where there are no up-to-date prices.

line of research is a sweeping kind of generalization with which various institutional practices of lending are subsumed under the name of 'debt' and 'debt holding'. It is as if such debt holders share a unity of interests and claims – both between themselves and in relation to equity shareholders.

Holders of corporation debt may be widely dispersed and manifest themselves as holders of traded corporate bonds. On the other hand, such debt may come in the form of bank lending heavily concentrated in the hands of only one bank. On the ideal markets the difference may not matter, but suppose that a corporation becomes distressed so that the value of its assets exceeds the ongoing value of the firm – it is worth more dead than alive, that is. Supposing an appropriate covenant, it may then so happen that a heavily concentrated debt owner, like a banking institution, would reveal a preference to take over flesh from the company and engage in some assets-stripping, leaving its dead soul to equity holders. Dispersed bond holders, on the other hand, are more likely to be motivated to come to mutual agreement by revitalizing the ongoing operations of the entity and not winding up its business. Consequently, from the viewpoint of corporations, $100 mln. of debt principal held in the hands of 1000 bond holders can't be placed on the same footing in terms of risk as the equal amount of debt owed to one debt-holder, much less on the same footing with the debt owed to an associated bank (i.e. one controlled by the borrower): different outcomes, different payoffs, different subdivision of payoffs. In this sense, interests of a particular small bond holder may harmonize with the interests of individual equity holders. There may even happen to be more antagonism within the group of debt holders then between a particular debt holder and an equity holder. The point is that separate interests within the debt structure are not naively aggregative, ditto between the groups. In the real world beyond liquid stock markets with the law of one price, each interest depending on its size is treated as a separate interest and bears a separate decision-making weight and priority. On how to reconcile these interests at a juncture after default eventuality, the future of a corporation may depend; and its present.

A vivid example of this conundrum is the tax debt always implicit in any corporate entity. Remember the fate of Yukos Oil, Inc.

So much about the harmony within the group of debt-holders. What may be beneficial for debt-holders as a group may not be beneficial for a particular debt holder who exercises most influence over the decision making process. In short, the relevance of M&M valuation paradigm only holds for entities traded on liquid security markets. Given its assumptions (and business practices of the real world), one day we hope it would be superfluous to explain that for unquoted (private) businesses (and investment projects) there is no such thing as 'the value of the firm'; only particular interests in it give rise to values contingent on expectations of particular interest-holders. Further to the point, these values are not aggregative, if only because interests and expectations of various stakeholders clash. As the first approximation we can, of course, conceive of a business identical with the firm which has only one commercial stakeholder, i.e. funded with 100% equity all in the hands of one 'representative businessman'. But it is unlikely there would be any demand for such valuation, except at the initial stages of investment project planning[14]. Of course, at the present these observations will fall on deaf ears among Professional Valuation practitioners who routinely apply WACC-based the-value-of-firm approach even to agricultural field valuations! No free lunch there? Perhaps, with the popularity of M&M valuation approach among valuers of private businesses we have another apparent overstretch of MPT.

RELEVANCE TO STOCK MARKETS: PRIMARY AND SECONDARY

Any finance model which promotes and lauds corporate dependence on debt without accounting for riskiness of its particular institutional forms if worst comes to worst (a riskiness which has nothing to do with the statistical risks) is an incomplete one. Indeed, as will be intimated shortly, it misses the whole point. Rather, it is against latent but very dangerous macroeconomic risks in corporate practice of being gouged out on debt (encouraged by the one-sided view of tax shields due to debt) that our attention should be directed.

Essentially, although trading in government bonds has a longer history in Britain, capital markets for corporate stock started to flourish following the necessity to raise large amounts of capital for canal building, railroad construction, etc. Raising these funds through the then conventional medium of regional banks was less convenient and more challenging given the huge amount of funds involved. Thus, corporate stock subscriptions took over as a popular form of funding and a viable network of capital providers alternative to the banks became a reality. Unlike banks, this was truly a network of dispersed contributors brought together at the central trading pit/broker that connected them with entities in need of funds. Also, unlike banks that have an ability to call back loans or contract their further supply of credit, such funding came in truly irrevocable form: stocks with declining prospects could be unloaded to another bidder without a bitter fight for the control or liquidation sale of underlying corporate collateral. Moreover, stock exchanges became conduits for quality funds: they acted as an intermediation mechanism transferring liquidity from savers to corporate borrowers. What was saved was lent, and no more. This comes in stark contrast with the banks that under the fractional reserve banking system have an ability to create the greater part of their loans out of thin air (as a double-entry on the accounts books). On the other hand, this doesn't mean that stock exchanges didn't encourage a greater amount of risk-taking for society: by widely dispersing ownership (or debt) of new ventures, the risks of those were also dispersed and willingness to 'give new things a try' was in consequence stimulated among savers (Bernstein, 1992).

What a spectacular transparent mechanism with the formal clearing house -- in many ways more efficient and sensible than the banks' one-on-one antagonism with borrowers! If nothing else, it was an independent new artery for capital raising processes. An uncontrollable new mechanism: a threat to established discretionary banking ways? But as a capitalist institution it was also not immune to the lure of profit. What if to effect its marriage with debt (at favorable interest rates) and subjugate its separate standing? With margin trading accounts and short-sales this was done in practice. Theoretically, it was done following the Tobin's Separation Theorem about the optimality of investing at the point of tangency to the market portfolio and turbo-charging the returns, if necessary, with the assumption of extra debt. Although such style of investing is represented to be efficient[15], what is so efficient about being in hock and over the barrel to creditors, unless one can time a market perfectly? Thus, capital markets' function as an independent intermediator of savings ceased to be: one artery merged with the other. It is hardly a secret that a number of researchers of the Great Depression lay the blame for the onset of The Great Crush on the orchestrated tightening of margin trading requirements after keeping them lax for too long (M. Rothbard, 1983, 1994).

If the original design of public stock markets looks too good to be true in this narrative, it probably is. For look at its weaknesses. The entire stock market activity is divided between the primary market and the secondary market segments. Only the act of flotation on the primary market furnishes something to the economic development of entities concerned: it brings them funds needed for undertaking real investment projects. But, following their initial floatation (IPO), stocks essentially pass over into the realms of the secondary market where they continue their vast speculative journey from hands to hands unrestrained. Their subsequent timeless wanderings in those realms contribute not a penny of new funds to their issuers. No doubt there is lots of buzz about fluctuations in stock market capitalization, talk of barometers etc. But the fund-raising function of the stocks is over and by way of returns on the funds raised they pay back only dividends, if any. The wanderings within the casino-sphere of secondary markets need not be explained by any fundamental processes occurring within the corporations, so much as by the expectation of the future wanderings, future wanderings of the future wanderings, etc. ad infinitum, as Keynes described in his beauty contest metaphor (Keynes, 1936). The idea of 'the bigger fool' sometimes holds greater explanatory power than anything else. Surely, there is an expectation of receipt of an infinite (perpetual) stream of dividends arising from stocks, but the value of those is not infinite (cf. The St. Petersburg paradox) and no less than zero (limited liability).

Something more specific is harder to say without considering the institutionalized conventions of valuation methodology: unlike for physical capital, the value of which can be grounded in reproduction costs, the 'fictitious capital' costs noting to produce. The point is that under the present relations between primary and secondary markets, the latter become decoupled from fundamental processes going on in the corporations. Subsequent trading in their shares doesn't benefit the issuer, though liquid conditions of circulation on the secondary markets go a long way toward encouraging risk-taking and the primary investment by giving assurance that stocks can be 'unloaded' if their prospects turn sour.

However, governments benefit from secondary stock market activities (and bubbles) by levying capital gains tax on trades.

14 Precisely such non-aggregative vision of corporate interests underpins "The Methodological Guidance for evaluation of the efficiency of investment projects claiming state support" developed in 1999 by the Russian Academy of Science (with the notable contribution from Profs. Smolyak, Livshitz & Vilensky) and approved by the joint decree of three federal ministries (available in Russian at www.labrate.ru) .

15 Arguably, no lesser person than H. Markowitz himself comes against such view these days (see Bernstein, 2007; p.104).

One of the possible suggestions for bringing the secondary market in line with its orientation as an attractive fund-raising institution is that a part of the capital gain be redirected to its corporate source and accrue back to the issuer instead of being expropriated by governments. Although this measure may appear to be one-sided (no capital loss reimbursements from entities when their stocks go down) and as tending toward stock price inflation, it may be needed one day to transform national stock markets into a viable and alternative artery for long-term investment. For example, on par with the capital gains tax, it is possible to encourage long-term investment habits by managing the issuers' levy on capital gains in such a way as to make it regressive in proportion to the length of the investment period (during which the stock was in the account of its seller) and even set it at zero after the lapse of a certain investment horizon. That way the interests of short-term speculators can be aligned with the interests of corporate issuers. In the zero-sum game that goes on in short-term on the secondary markets, the winners will be bound to share their pickings with the issuers. Moreover, the regressive levy will disadvantage short-term speculators vis-à-vis those players engaged in long-term strategic investment. The positive effects this measure will have on stock volatility may well offset the declining degrees of liquidity (demand from speculators) which can be envisioned as its likely side-effects. So the percentage of capital gains' levy should be made variable for various stocks, setting which at its specific amount can be advocated as a new tool among the powers of national governments which they can deploy for micro-managing the economy and redirecting capital-gains-from-trading toward development of socially-important industrial sectors. This can serve as a vision for true alignment of speculative investment interests with productive interests harnessing the secondary stock market in the service of real economy.

SOME LESSONS FROM THE PAST WHICH CAN BE FUTURE

The MPT paradigm and modern financial economics based on it represent an empirical-based research paradigm which believes there is a sacred content in observed prices and that, for all practical purposes, prices are values. Therefore, the oscillatory processes observed for the prices are also ascribed a hidden meaning and message, with suggestion that those can be exploited to minimize risks. Such vision tallies poorly with what market participants themselves think about their activities. For example, one investment banker was quoted as saying: "Couple of your and our DCFs, good PR management and few nifty brokers with good leverage, and the price of the stock will be anywhere we make it." (in E. Neumann, (2009)). Presumably, he was speaking from his experience and understanding that securities market is a vast social process with conflicting commercial and institutional interests. The process which, as in any social structure, has leaders who call the music and 'lower echelons' who dance to it. Some facets of the historic outcome of this process can be depicted on a price graph (with, perhaps, an indicator of volumes below it). What if this depiction resembles a random-oscillation process? Will you, then, impute a sacred meaning to this picture and confuse it with the reality itself? Or, will you regard the idea that social reality behind the liquid capital market processes can be meaningfully reduced to a two dimensional doodle as absurd?

From the attitude to this choice will depend one's opinion about the meaningfulness of MPT as a market research and investment paradigm.

Be it mentioned that MPT, as an outgrowth of the neoclassic economic theory, is vulnerable to the same charge of methodological monism which is usually levied against neoclassical economics research in general, i.e. 'it is more heat than light' (Mirowski, 1989) as it attempts to treat social processes as if they were on the same footing with naturally occurring phenomena. The gain in ostensible 'scientificity' comes at a heavy cost of ignoring the role of human consciousness and social organization. Thus, real drivers of processes are lost from sight, and only things with numerical representations are said to count toward formulating the problem. As a result, problems are formulated at second-hand, through their statistical representations and consequences. Moreover, the central problem of interest to MPT is how to secure the best returns possible (subject to controlling for losses), or whether an aspiration to beat the market pays off. So the MPT research paradigm becomes self-contained in its reference to the market to the point of tautology, while it also speaks in the language very appealing to its principal users: investors with their eyes turned toward the main chance. Its theoretical drive is to elude the consideration of real economy and underlying productive processes in their long-term orientation. At best, those are dismissed in 'what is - is right' fashion. Over the years, such ideological build of MPT has resulted in constructing investment superstructures (like derivatives, etc) over the existing buttresses of the capital market in an attempt to earn a bigger buck or hedge its earnings. Ultimately, a very baroque architecture developed over the bridge until few were able to trace it down to its foundations.

Can the river of real economic life bear those buttresses and elaborate bridges built over it, or are they too much for it? Can the pricing of financial assets be done only with reference to its own stratosphere (the market), without due regard to the long-term interests of real economy on the ground and its development plans? If something is not sustainable, it is hard to sustain it even with public money infusions and bailouts, which only serve to delay the inevitable inundation by the river of truth.

In our estimation, the 'performativity' of MPT has done much for steering financial markets away from properly navigating the river of real economic life.

The following words of J.M. Keynes (1936) ring even truer today, and MPT has done little to alleviate their sting, only to aggravate it: "Investment based on genuine long-term expectation is so difficult today as to be scarcely practicable. He who attempts it must surely lead much more laborious days and run greater risks than he who tries to guess better than the crowd how the crowd will behave; and, given equal intelligence, he may make more disastrous mistakes. There is no clear evidence from experience that the investment policy which is socially advantageous coincides with that which is most profitable. It needs more intelligence to defeat the forces of time and our ignorance of the future than to beat the gun." (J.M. Keynes)

We also perceive that the greater part of the problems with MPT stems not so much from its outright irrelevance (indeed, in the narrow context of liquid stock markets it initially proved to be a very fruitful research program that benefited many investors), as from its overstretched application to areas of investment lying beyond the realm of liquid financial assets (Michaletz & Artemenkov (2007), Artemenkov & Mikerin (2008)). What volatility, or "beta", for land or an illiquid investment project? This and other types of artificial and far-fetched questions are often asked by researchers, as if illiquid assets can be priced on the same principles as liquid assets. So the impression left is that the ratiocinative templates of MPT hold the widest-possible monopoly as the only available 'scientific' investment & valuation research program.

However, we see that the musical chairs on liquid capital markets have stopped. In a sense, this self-referential, self-contained fancy-dance that was going on in them has run, or will have run after a short illusory reprise, against hard wall of reality as an attempt was made by securitizers of various stripes to built a bridge between pieces of real economy and the liquid capital markets. It is not that the assets that flew over the bridge were toxic per se, but their consumption on the valuation terms dictated by the MPT –based pricing conventions prevailing on the liquid capital markets resulted in the indigestion. The wisdom of liquid capital market's participants' stomach for long nurtured on the emasculating diet of mechanistic-oriented MPT made them unable to distinguish between the conventional staple diet of known fruits on their markets and the new imports. For years eating their self-contained fruits raw, they have been unable to conceive that the new potatoes needed cooking and boiling in the first place[16]. Now those intoxicated players have galls to declare the potatoes toxic, not their cooking (valuation) methods inept. Not putting too fine points on it, another way of describing the same is saying that taking a real asset and converting it into financial asset doesn't change its essence and its original anchoring to a different type of market process, or even economic reality. Those who claim that it does are engaged in misrepresenting the essence[17].

Maybe it's about time to ask economists to get back to their duties after enjoying their ease on the random walk to the tune of 'what is – is right' mantra, and consider formulating something which resembles socially-responsible economic guidance for the development and regulation of capital markets. Of course, this may be dangerous for their reputations, but as they themselves taught, returns only come from assuming risks. Our concern is that MPT, being under the present circumstances a 'degenerative research program' (as this technical term is defined in Blaug (1980)), will avail but little in this new project. Most economists currently pursuing their field of endeavor within MPT probably heard about T. Koopmans (whose courses H. Markovitz was taking at the time when he stumbled across the mean-variance optimization idea). It is less well known that Koopmans shared his 1975 Nobel Prize with L. Kantorovich, an academician who lived in Novosibirsk, Russia (and moved to Moscow about the time he received his Nobel Prize). The research of L. Kantorovich was a great encouragement

[16] This consideration eluded them perhaps because they have been concentrated only on the wisdom of hot potato dropping before the music stopped.

[17] Further to the point, Modern Financial Economics does all to convince that the essence is equivalent for either financial markets and markets of real economic capital or even that they co-exist in the same mega-portfolio. A Keynesian would surely have pierced the absurdity of such claim – bearing in mind the Keynesian conceptual distinction between the rate of interest inherent in the capital markets and the rate represented by the marginal efficiency of capital in the markets of real economy. The importance of this distinction should not be lost on the corresponding plane of valuation drivers.

and inspiration behind a constellation of preeminent investment and valuation thinkers such as N. Fedorenko, A. Lurje, S. Shatalin, N. Petrakov, D. Lvov, B. Michalevski, V. Polterovich and S. Smolyak. Perhaps, casting a look at their investment theory works will help induce some new ideas for the guidance of investment and valuation practice.

An important theoretical novelty one is guaranteed to find in their approach is in aligning these issues of investment efficiency and valuation with the broad outlines of macroeconomic policy and development goals. Ideally, microeconomic investment advice would, then, harmonize in scope with the broader social picture and needs of economic development. Precisely because of this top-down view, such investment theory unlocks a capacity for integrative pricing & investment solutions across the universe of assets –both liquid securities and illiquid 'chunky' investments – with due heed given to sustainable long-term outlook. Thus, investment theory expands its vision and ceases to stand merely for an advice on how best to aggregate 'natural' stock-oscillators. Understandably, such a sea-change in investment theory, if it ever comes to fulfillment (which seems unlikely as yet), will have grand repercussions on the perception of the social functions of the valuation and investment professions, which even now, ostensibly, are considered as 'public interest' professions. Provided that these cues are taken, we hope that one day a Keynesian valuation theory and corresponding institutional practice will emerge as a full-fledged reality instead of mere vague desideratum, while the new classical MPT investment and valuation paradigm will diminish in its status to only its special case scaled down to agreeable proportions.

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THE IMPACT OF STOCK MARKET OPERATIONS ON THE NIGERIA ECONOMY:A TIME SERIES ANALYSIS (1981-2008)

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ABSTRACT

This paper attempts to empirically examine the impact of stock market capitalization, value of listed securities and all share index on Grods Domestic Product of the Nigeria economy over twenty eight (28) year period. The unit root test and co-integration test were carried out. The result revealed a positive relationship between market capitalization and output level of Gross Domestic Product (GDP). The result also show that the value of listed securities had a positive and significant relationship with the output level of Gross Domestic Product (GDP) while the all share index has a negative and a significant relationship with the output level of GDP. The implication of this result is that the growth or increase in market capitalization and value of listed securities up to 2008 has resulted to increases in output level of GDP in Nigeria. It is recommended that policy makers and market regulators in Nigeria should sustain policy measures that will ensure continuous increase in the GDP.

KEYWORDS

Stock, Nigeria Economy, Market, Securities.

INTRODUCTION

The most essential function of the capital market is to facilitate the mobilization and allocation of medium and long term funds that will ginger the process of economic growth and development. Economic growth is achieved when the capital market through its financial intermediation role succeed in accumulating capital for productive engagement from the saving surplus of the economy and channeling same to the deficit spending economic units. For the purpose of this study, ***Economic Growth*** is defined as a sustained rise in the output of goods, services and employment opportunities with the sole purpose of improving the economic and financial welfare of the citizens. It is the role of the capital market to continue to provide a means of allocating the Nations real and financial resources between various investors, thereby broadening the ownership base of businesses through issuance and trading of financial instrument. Such instruments, also known as ***financial securities***, are claims on the borrower's future income or assets. ***Equities*** represent ownership stake in a particular firm that issued them and ***Bond*** is a debt instrument which is a contractual agreement by the borrower to pay the holder of the instrument fixed Naira amount at regular intervals (interest and principal payments) until a specified maturity date, when a final payment will be made (Mishkin, 1997).

Capital Market is the market in which long term debt (maturity greater than one year) and equity instruments are traded. The capital market is made up of two inter-related segments, the primary market which provides the mechanism for raising funds through the issuance of fresh or new securities. The secondary market provides facilities for trading in already existing securities, hence creating liquidity in the market. The economy will feel the effect of the stock market activities more positively when the Gross Domestic Product (GDP) is on the increase as a result of the operations of the capital market. In this context, ***Fund*** is the sum of money or stock of convertible wealth employed, set aside for a business enterprise, especially the quick capital or available asset of a business firm or corporation. ***Stock Market*** refers to that organization which is set up for the purpose of administering the conduct of trading on the securities of quoted companies in the economy. It is a vital arm of the capital market. (Nzotta, 2004). To perform its wealth creation and welfare improvement function optimally, the capital or stock market must assert positive influence on the working of the economy through its operations. Three explanatory variables: market capitalizations, value of listed securities and all share indexes are cardinal for our purposes. ***Gross Domestic Product (GDP)*** is employed as proxy for economic growth in this study and it is conceptualized as the total monetary value of all goods and services produced in an economy over a defined or specified period of time, say one year. The way Gross Domestic Product reacts is a function of the magnitude and direction of the effects of the forces at play in the stock market. This way is what this paper terms impact of stock market operations. ***Operations*** for the purpose of this paper, concerns itself with the activities, things, actions, simulations generated from the workings of the Nigerian stock market that bring about the corresponding reactions by the macro economic indicators such as the Gross Domestic Product (GDP). (Onoh, 2007).

In the capitalist ideology of ensuring efficient allocations of scarce financial resources and massive capital formation, there is the interplay of individuals (private and corporate investors), specialized financial institutions and instruments. This arrangement form a network of institutions, processes, infrastructures and mechanisms that facilitate the convergence of suppliers and users of medium and long term fund for investment purposes, otherwise called the ***stock or capital market. Investment*** refers to economic activities which aim at increasing the productive quantity and quality of existing capital resources. It is the change in capital stock over time. It refers to the use of present resources to produce further resources. With reference to financial securities, investment refers to only the new issues of securities which represent net additions to aggregate capital funds of the firm, not trading on existing securities which does not add to the stock of existing capital. This is the laying out of savings or accumulated capital in a manner and for a purpose which promises a return of principal and satisfactory income. (Nzotta, 2004).

However, one expects that the operations of the stock market must be significant in influencing economic growth which is evidenced by the GDP. The operations are represented by factors such as stock market capitalization, value listed securities and all share index. According to the Nigerian Securities and Exchange Commission (1998), ***Market Capitalization*** for any quoted company is the worth of that company as determined by market forces, i.e. demand and supply of its securities. Market capitalization of any security is therefore, its value as perceived by investors. It is the product of the company's share price in the market and its outstanding shares (paid up capital) at a given date. In the light of this, an empirical examination of the magnitude and direction of relationship between Gross Domestic Product (GDP) and stock market capitalization, value of listed securities and all share index becomes expedient. This however, constitutes the central problem of the study. The objectives of this study are to critically examine the nature of relationship between stock market capitalization and gross domestic product; to exami; and to ascertain the nature of relationship between the all share index and the Gross Domestic Product.

LITERATURE REVIEW

The study of Goldsmith (1969) and other previous studies have attempted to demonstrate that the stock market activities, indeed, influence the economic growth of developing economies. While they seem to agree on the significant consideration of stock market operations as a variable in explaining the economic growth in the developed economies, there appear to be disagreements in respect of the direction of causality between economic growth and financial market of developing countries.

In a later study, two key positions on how the changes in market stock catalyze the pace of economic growth were ascertained. The first is by making proper changes possible in the firms without affecting the productive process in the economy. The other is by offering higher possibilities of portfolio diversification, Levien (1991). Levine and Zervos (1998) presented a study of stock market and economic growth over the period of 1976—1993 and used data on forty seven (47) countries. Their findings showed that there exist a strong relationship between stock market liquidity and economic growth, capital accumulation and productivity, while stock market size is not correlated to economic growth. It was also found out that the ratio of bank lending to the foreign direct investment showed strong impact on economic growth.

Atje and Jovanovic (1993), carried out a cross country study of market and economic growth covering the period 1980—1988 and found a positive and significant correlation between average economic growth and stock market capitalization for forty (40) countries. The result is evidence that the level of stock market operations helps to explain growth in per capital output. In sharp contrast to Atje and Jovanovic (1993), Harris (1997) re-examine the empirical relationship between stock market and economic growth. The result exposed the fact that the level of stock market activity does not help to explain growth in per capital output.

In another study by Demirguc-kut and Marsimovic (1998) cited in Henry (2000), stock market activities in the area of transmission of already existing assets (secondary market activity) was discovered to exert significant influence on the economic growth more than fund channeling (primary market activity). The result of this study, with a sample of thirty (30) countries for the period 1980 to 1991 reveals that, banks and stock markets are not rival institutions but are complementary to one another and that the advancement in stock market in developing countries does not imply a decrease in the banking system. Similar study by the same authors Demireus-Kut and Levein (1996) using data from forty four (44) countries, both developed and developing, for the period 1986—1993 concluded that “countries with well developed stock markets tend to also have well developed financial intermediaries.” This suggests that proper financial intermediation leads to allocative efficiency of productive resources to preferred growth areas in the economy.

Barton (1992) in his study highlighted the relationship between stock prices and expected earnings using the earnings expectation model. Oludoyi (2001), in his study shows that the current market price of a stock equals the expected value of the sum of next period’s price and dividend discounted. This he further explained exerts significant impact on the wealth of the nation. The conclusion of Barlett (2000) has it that rising stock prices have two basic effect on the economy of the nation. To start with, it increases the wealth of a nation thereby raising the amount of consumer spending. He also stated that rising prices of stocks in the stock market can increase investment spending thereby leading to the issue of new stocks. As such, the stock market affects the economy through the wealth creation effect. Irving (2004) study, considered a link between stock exchanges and overall socio-economic development. According to him, there is no relationship and even where there is such could be harmful. Based on his findings, he advised African countries not to devote their scarce economic resources to promotong stock exchange, rather, such resources should be used to fight poverty, provide adequate social services, and develop infrastructure. Sule (2009) demonstrates that while activities in the secondary market tend to grow the stock market earnings through its wealth effects, the primary market did not.

Unlike the earlier studies by the authors, this paper tends to highlighten the essential behavioral pattern of the Gross Domestic in response to impact provided by the various operational variables in the Nigeria’s stock market. The logical point of entry is to determine the relationships between the operational variables (market capitalization, value of listed securities, all share indexes) and the Gross Domestic Product.

METHODOLOGY

The study employs various data obtained from the Central Bank of Nigeria (CBN), Statistical Bulletin, National Bureau of Statistics, National Account of Nigeria, and the Nigerian Stock Exchange fact book. The time series data cover the period of 1981—2008. In an attempt to investigate the impact of stock market operations on the Nigerian economy which has the aim of increasing the level of production of goods and services in the Nigerian economy, we use the Gross Domestic Product as proxy for the performance of the Nigerian economy which is our dependent variable and stock market capitalization (MCAP), value of listed securities (VLS) and all-share index (ASI) as stock market performance or explanatory variables. We use the unit root test to test for stationarity of the times series data. We also carried out a co-integration test to identify long-run relations (equilibrium) amongst the co-integrating vectors. In this study, we employed the Jonansen co-integrating technique because it performs better when we are dealing with multiple regressions. Finally, we used the error correction model to correct for disequilibrium.

MODEL SPECIFICATION

Following the position of Demirgus-Kunt, Ali and Levine (1996) and the theoretical underpinnings and empirical review earlier made in this paper, we can hypothesize that the Gross Domestic Product is a positive function of market capitalization (MCAP), value of listed securities (VLS) and all share index (ASI). Depending on the prevailing circumstances, these variables could be postulated to be negatively related to the Gross Domestic Product (GDP).

The model is based on Demirgus-Kunt, Ali and Levine (1996) theory on the relationship between stock market earnings and economic growth. This is modified to measure the stock market impact on the Gross Domestic product in Nigeria. We specify a three predictor model as follows:

$GDP = a_1 + a_2MCAP + a_3VLS + a_4ASI + U_t$……………………(1)

$F_1>0, \quad F_2>0, \quad F_3>0$

Where:

GDP	=	GROSS DOMESTIC PRODUCT
MCAP	=	MARKET CAPITALIZATION
VLS	=	VALUE OF LISTED SECURITIES
ASI	=	ALL SHARE INDEX
U_t	=	Stochastic variable (error term)
A_1	=	Intercept
$A_2, a_3\ a_4\ a_5$	=	Slope

DATA ANALYSIS AND INTERPRETATION

This section shows the empirical analysis of this study. It entails the analysis of data on the impact of stock market operation on the Nigeria economy. This analysis is based on testing the basic assumptions about the relationship between stock market operation and the Nigeria economy.

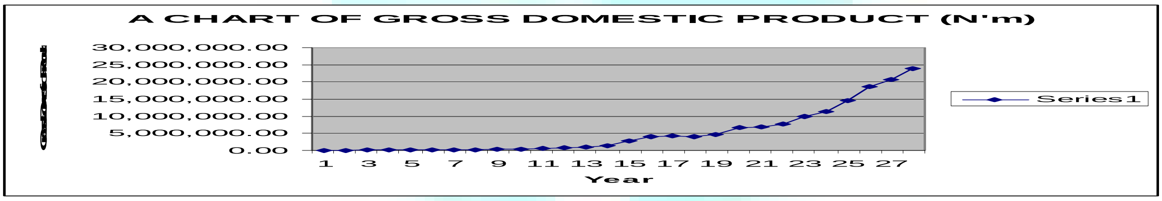
TABLE 1: ANNUAL TIME SERIES OF REAL MACRO ECONOMIC VARIABLE (GDP) AND STOCK MARKET VARIABLES (1981—2008)

YEAR	GROSS DOMESTIC PRODUCT	MARKET CAPITALIZATION	VALUE LISTED SECURITIES	ALL SHARE INDEX
1981	94,325.02	5.0	304.8	100
1982	101,011.23	5.0	215	100.2
1983	110,064.03	5.7	397.9	104.2
1984	116,272.18	5.5	256.5	115.5
1985	134,603.32	6.6	316.6	127.3
1986	134,603.32	6.8	497.9	163.8
1987	193,126.20	8.2	382.4	190.9
1988	263,294.46	10.0	850.3	233.6
1989	382,261.49	12.8	610.3	325.4
1990	472,648.75	16.3	225.4	513.8
1991	545,672.41	23.1	242.1	783
1992	875,342.52	31.2	491.7	1,107.60
1993	1,089,679.72	47.5	804.4	1,543.80
1994	1,399,703.22	66.3	985.9	2,205.00
1995	2,907,358.18	180.4	1,838.80	5,092.20
1996	4,032,300.34	285.8	6,979.60	6,992.10
1997	4,189,249.77	281.9	10,330.50	6,440.50
1998	3,989,450.28	262.6	13,571.10	5,672.70
1999	4,679,212.05	300.0	14,072.00	5,266.40
2000	6,713,574.84	472.3	28,153.10	8,111.00
2001	6,895,198.33	662.5	57,683.80	10,963.10
2002	7,795,758.35	764.9	59,406.70	12,137.70
2003	9,913,518.19	1,359.3	120,402.60	20,128.90
2004	11,411,066.91	2,112.5	225,820.00	23,844.50
2005	14,610,881.45	2,900.1	262,935.80	24,085.80
2006	18,564,594.73	5,121.0	470,253.40	33,189.30
2007	20,657,317.67	13,294.6	1,076,020.40	57,990.20
2008	23,842,170.70	9,516.2	1,679,138.70	31,450.78

Source: Central Bank of Nigeria, Statistical Bulletin, Various Issues.
Source: National Bureau of Statistics, National Account of Nigeria, Various Issues.
Source: Nigeria Stock Exchange, Fact Sheet Various Issues

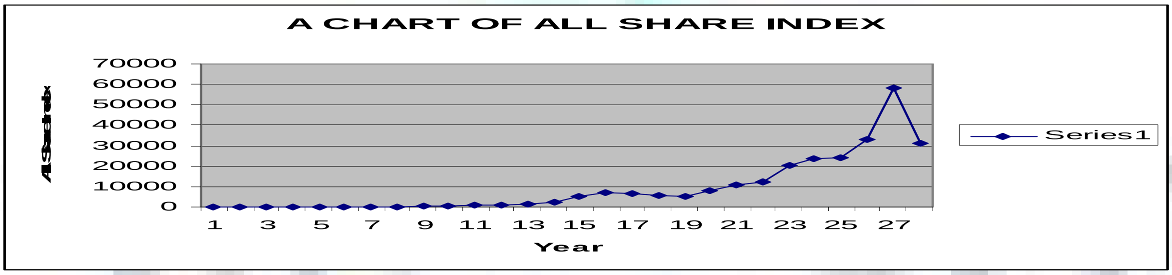
Annual time series data for the period of 1981 – 2008 are used in the present study. We started the empirical analysis by examining the characteristics of the variables used. *Table 2* reports the Unit Root Tests result -Augmented Dickey Fuller (ADF) tests. To proceed with the test, graph of each series is visually examined to see whether a trend is present or not as shown in figure below:

FIGURE 1



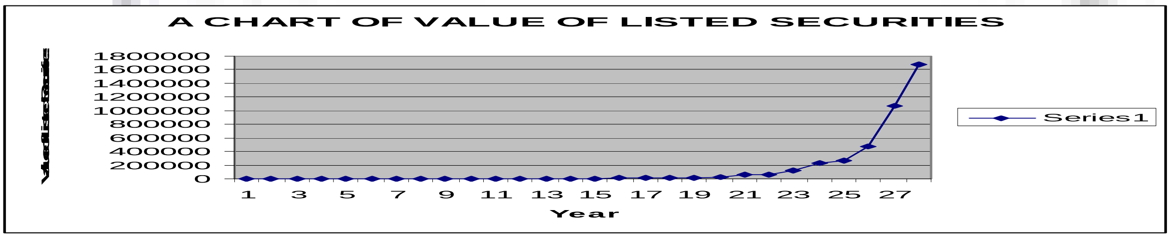
Source: Researcher's Computation

FIGURE 2



Source: Researcher's Computation

FIGURE 3



Source: Researcher's Computation

FIGURE 4

Source: Researcher's Computation

A trend variable is necessary in the ADF regression if trends are present in the series. In the absence of a trend in the series, only an intercept is included in testing for unit roots.

UNIT ROOT TESTS

The Augmented Dickey Fuller (ADF) test of unit roots was conducted for all the time series (including a deterministic trend), which were used in the study. The ADF results showed that all the variables were non-stationary at their levels. The test results revealed that the series were all integrated series of order (1). The results of the ADF tests are shown on *Table 2* below:

TABLE 2: AUGMENTED DICKEY-FULLER TEST RESULTS

S/NO.	VARIABLES	ADF STATISTIC AT LEVEL	CRITICAL VALUE 5 %	ADF STATISTIC 1ST DIFFERENCE	CRITICAL VALUE (5%)	ORDER OF INTEGRATION
1	GDP	4.3630	3.7709	8.4310	3.7709	1(1)
2	MCAP	3.2214	3.7709	5.2142	3.7709	1(1)
3	VLS	2.8341	3.7709	4.4411	3.7709	1(1)
4	ASI	-2.8388	3.7709	-3.7723	3.7709	1(1)

Source: Self-computed

Augmented Dickey–Fuller result shows that market capitalization in relation to Gross Domestic Product is positive, and Gross Domestic Product in relation with value of listed securities is positive at ADF level, while all share indexes with gross domestic product is negative at ADF statistic level in order of integration (1).

CO-INTEGRATION TEST

Johansen procedure is used to identify long-run consumption expenditure amongst the co-integrating vectors. *Table 3* reports the estimates of Johansen procedure and standard statistics. In determining the number of co- integrating vectors, we used degrees of freedom adjusted version of the maximum eigenvalue and trace statistics, since the existence of small samples with too many variables or lag Johansen procedure tends to over estimate the number of co-integrating vectors.

TABLE 3: NORMALIZED CO-INTEGRATED COEFFICIENTS, (1) CO-INTEGRATION EQUATION (S)

GDP	MCAP	VLS	ASI	C
1.000000	2.024739	3.44057	-2.4380	6875.258
	(0.20277)	(1.62822)	(9.6139)	
Log likelihood	-887.6655			

Test indicates two co-integrating equation(s) at 5% significance level. Based on the estimates, the long run elasticity can only be reported for market capitalization, value of listed securities and all share index variable. The value of the long-run elasticity of output level of Gross Domestic Product with respect to market capitalization is 2.02. This is obtained from the coefficient, and the implication of this is that the long run relationship between output level of gross domestic product and market capitalization is positive. Value of listed securities has a long run positive relationship with output level of gross domestic product and all share indexes have a long run negative relationship with output level of Gross Domestic Product.

EMPIRICAL RESULTS AND DISCUSSION

The results of model estimation and the various diagnostic tests are presented below. Equation 1 is estimated using the output level of Gross Domestic Product (GDP) as the dependent variable. The results of parameter estimate, along with the standard errors, t-values and the corresponding critical values are given in the tables. The signs of all estimated coefficient are expected in the Ordinary Least Square (OLS) model in *Table 4*. The parameters of all variables in *Table 4* are significant at 95% confidence interval.

TABLE 4: THE OVER-PARAMETERIZED ERROR CORRECTION MODEL

Dependent Variable: D (GDP,2)
Method: Least Squares
Date: 28/01/10 Time: 09:33
Sample (adjusted): 1981 – 2008
Included observations: 27 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.03210	2.20330	0.01457	0.3119
D (VLS,2)	3.04242	0.21932	1.61322	0.0042
D(VLS(-1),2)	1.04031	0.05620	-0.77941	0.0061
D(MCAP,2)	8.01031	8.40516	0.95302	0.6440
D(MCAP(-1),2)	3.10440	5.30340	0.58536	0.8271
D(ASI,2)	-2.21514	7.00270	2.37550	0.0389
D(ASI(-1),2)	-1.40310	4.39808	0.31903	0.9443
ECM(-1)	0.33511	0.41910	0.79959	0.1910

R-squared	0.953032	Mean dependent var	0.056308
Adjusted R-squared	0.815322	S.D. dependent var	0.013164
S.E. of regression	10625.12	Akaike info criterion	-2.561024
Sum squared resid	0.399447	Schwarz criterion	-2.316136
Log likelihood	39.58143	F-statistic	6.084068
Durbin-Watson stat	1.870522	Prob(F-statistic)	0.000331

Source: Self-computed

Note *significant at 1 percent
**Significant at 5 percent

In *Table 4,* market capitalization has a positive relationship with output level of gross domestic product. A 1% rise in the market capitalization increases the output level of Gross Domestic Product by 8.01% while the F-Statistic shows that stock market operation is enhancing the growth of Nigeria economy; hence we accept the alternative hypothesis and reject the null hypothesis. Value of listed securities has a positive and significant relationship with output level of gross domestic product at first difference. The implication of this finding is that the growth in value of listed securities up to 2008 has resulted to increases in output level of gross domestic product in Nigeria. All share index has a negative and significant relationship with output level of gross domestic product with lagged difference. The co-efficient of determinant shows that 95% of the total variations in output level of Gross Domestic Product is explained by the explanatory variables.

CONCLUDING REMARKS

The study sought to examine the impact of selected stock market operation (activities) on the Nigeria economy. In the light of this effect, the study equally sought to identify the long-run impact of the stock market indicators on the economy. The result indicates that significant relationship exist between market capitalization and Gross Domestic Product, and also between the value of listed securities and Gross Domestic Product variables. By implication, market capitalization and value of listed securities affects the economic growth of Nigeria. The All Share Index negatively but significantly affects the growth rate of the economy. The result confirms that previous market capitalization and value of listed securities ginger up current economic growth even in the face of influence by other economic variables. In any given year, a 1% rise in market capitalization increases the output level of GDP by 8.01%. While a 1% rise in the value of listed securities increases the output level of GDP by 3.04%. The identified behavior of GDP in response to the stimuli provided by stock market operation is largely growth motivated.

In conclusion, we recommend that to enhance economic growth, policy markers and market regulators should sustain the level of reform and market efficiency.

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PERFORMANCE APPRAISAL SYSTEM ON COMPANY PAY ROLL EMPLOY, SENIOR, MIDDLE & LOWER MANAGEMENT (A STUDY WITH REFERENCE TO INTERNATIONAL TOBACO COMPANY LTD., GHAZIABAD)

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ABSTRACT

Performance appraisal has become a very significant activity in most of the enterprise, it provides data about past, present and expected performance of the employees which is helpful in taking decision on selection training and development. One of the widely used human resource development mechanism that goes a long way is systematically improving the performance level of an individual as well as organization is the performance appraisal system (P.A.S). If P.A.S is implementing well it can take the organization on a fast development track and faster productivity through commitment, motivated or competent people. Continuing efforts can be made to build a stronger and more effective organization. I.T.C. being a giant sized industrial enterprise has adopted a scientific system of performance appraisal of its human resource the most widely used technique is the self appraisal system. In I.T.C ,H.R.D is an approach to the systematic expansion of people work related abilities, focused on the attainment of both organization and personals goals, focus is on people, who are perceived as possessing skills, potential and ability to grow, change and development. On the basis of questionnaire related to work environment and personnel motivation from company pay roll employ senior, middle and lower management total of hundred.

KEYWORDS

Performance, Company, Tabaco, Ghaziabad.

INTRODUCTION

Steering a public enterprise in to-day highly turbulent business environment marked by unexpected crisis situation and changing economic market phenomena is indeed a difficult proposition it becomes all the more difficult when the enterprise is a large multi product and multi divisional one dealing with diverse markets and operating from locations situated for and wide, to survive and grow in a company has constantly review and innovatie H.R.D strategies.

The evaluation of the performance of employees is a key part of the function of staffing as the evaluation serves as a basis for judging the contribution and weaknesses of employees so that continuing efforts can be made to build a stronger and more effective organization.

Human resource are key organizational assets since organization performance depends on the quality of employee effort on their ability and motivation by raising the quality of individual employees contributions to production, organizations can make significant improvements in their performance of company pay roll management.

Performance appraisal is a systematic way of evaluating a workers performance and his/her potential for development, this continuous monitoring of the performance and periodic evaluation helps in retaining promotional and retraining policies.

Performance can be appraised against some set standards to meet the needs of the organization and the employee, hence the technique must be sufficiently sensitive to pick up the difference between an effective and ineffective employee.

Appraisal has four major purposes

1. To let employees knows formally how their current performance is being rated
2. To identify candidates for promotion

I.T.C limited has a long history of 90 years the leader of Indian cigarette industry is a conglomerate of many diversified businesses having a overall turnover of Rs. 5000 crore form hotels & tourism, agro, paper, etc, it was an ideal case worth studying for any good manager or researcher.

RESEARCH OF THE PROBLEM

For the ever increasing complexity of challenge facing organization and the place of change, both signal the escalating pressures that will be brought to bear on human resource personnel to play a proactive and strategic partner roles. Therefore, if PAS is implementing well, it can take the organization on a fast development track and faster productivity through commitment, motivated or competent people.

- Facilitating upward and downward communication and sensitizing senior executives to problems at lower levels;
- Developing and strengthening boss-subordinate relationships:
- Role clarity and performance planning;

NEED AND IMPORTANCE OF THE STUDY

Performance can be appraised against some set standards According to McGregor the format performance appraisal plans are designed to meet three needs, one of the organization and the other two of the individual. These are :-

- They provide systematic judgment to back up promotions, transfers, salary increments etc.
- They let the subordinate know where he stands and whether any changes are required in his behavior attitudes, skill or job knowledge.
- Encouraging employees to express their views or to seek clarification on job duties.
- Serving as a predictor for future responsibilities.
- Preventing grievances, since the employees will know where they stand relative to their achievements
- Increasing the analytical ability of the supervisors, since they will be directly involved in making judgment about their work's performance level.

RESEARCH METHODOLOGY

The most effective performance appraisal system have the following characteristics: -

- The system must be bias-free. The evaluator must be objective and the methods of appraisal must be fair and equitable. The atmosphere must be that of confidence and trust.
- It must be relevant. It should only measure behaviors that are relevant to the successful job performance and not any other personal traits.
- It should be reliable, dependable, stable and consistent. High reliability is essential for correct decision making and validation studies. It should be sufficiently scientific, so that if an employee is evaluated by two difference evaluators, than the result should be significantly the same.

Performance appraisal has become a very significant activity in most of the enterprises. It provides data about past, present and expected performance of the employees which is helpful in taking decisions on selection, training and development, increase in pay, promotion, transfers, and the like. These days a large amount of money is spent on performance appraisal by most organizations. The benefits of performance appraisal are as follows:-

- It help the supervisor to evaluate the performance of his employees systematically and periodically. It also helps him to assign that work to individuals for which they are best suited.
- Rating helps in guiding and correction of employees. The supervisor may use the result of the purpose of constructively guiding the employees in the efficient performance of work.
- The ability of the staff is recognized and can be adequately rewarded by giving them special increments.
- Performance appraisal can be used as a basis of sound personnel policy in relation to transfer and promotion. If the performance of an employee is better than other, he can be recommended for promotion, but if a person is not doing well on a job, he may be transferred to some other job.
- Ratting can also be used to evaluate the training programmes. Weaknesses of employees are revealed by merit rating and the training programmes can he modified accordingly.
- Performance appraisal provides an incentive to the employees to better their performance in a bid to improve their rating over others.
- If the performance rating is done scientifically and systematically it will prevent grievances and develop a confidence amongst the employees because they are convinced of the impartial basis of evaluation.

THE EVALUATION PROCESS

Establish performance standards, Communicate performance expectations to employees, Measure actual performance, Compose actual performance with standards, Discuss the appraisal with the employee, If necessary initial corrective action. Achievements have been received for the training and result have been obtained on the basis of Questionnaire related to work environment and personal motivation from outsources of skilled and unskilled workers for a total number of 400 skilled and 300 unskilled workers making a total of 700. Response indicates the Training program have been well organized and perceived by both at senior and junior levels generating a vibrant work culture. The survey indicated that the integrated approach has brought about a radical change in the overall performance of the employees particularly with reference to the following aspects

1. Motivation level and morale have gone up considerably.
2. The program has helped the participants to introspect and modify their behavior
3. Improved communication approach at various levels

These training programs and workshop have not only improved the overall climate and culture of the organization but also generated better quantity of life and satisfaction amongst the supervisors and workers in their personal lives.

ABOUT ITC COMPANY

ITC Limited has a long history of about 90 years and now marched into the next millennium. ITCV, decidedly the leader of Indian cigarette industry, is a conglomerate of many diversified businesses having overall turnover to the tune of Rs. 5000 crore. The group having started from its core competency business of tobacco and financial services has evolved as leader in many other businesses such as hotels an tourism, agro-businesses, paper business, etc. During this course of development in business, the ITC has undergone many ups and downs in its business as well as managerial practices. Thus, it seems to be a case worth studying for any good manager or researcher.

It is the story of Scissors cigarette, the breadwinner brand of ITC, a doyen of Indian industry and the leader in cigarette. It is the story of ITC's struggle, with its breadwinner brand facing near extinction on account of competition. It is the story of how the company handled its dilemma-'to revive the brand of exit' – how it opted in favour of reviving the brand and how it succeeded in its mission.

The ITC Scissors case is essentially a story of effective product management. From 1921 to date. Scissors had a long product life. It has seen many ups and downs and suffered some of the worst set-backs; but everytime, it has risen to new peaks of excellence and growth. In view of this unique phenomenon, the Scissors case represents one of the best examples of effective PLC management. The case vividly portrays how the company evolved a superb product market strategy, how it handled the inescapable product decline with care and caution, how it retrieved the product to normalcy and prolonged almost limitlessly its mature and profitable of life.

ITC has its head quarter at Virginia House, 37 Chowringhee Road, Calcutta. Its annual turnover is more than Rs. 6000 crores approximately and market capitalisation is more than Rs. 8,000 crores. It ranks 5th among the giant corporations. The company has network of branches & offices in the country. The Ghaziabad unit of the company is situated at Guldhar (Near Muradnagar) on the main Ghaziabad Meerut highway about 5 km from the heart of the city. It is connected with all important roads and highways. The production dept. of the company is fully air-conditioned because artificial huminidification is very necessary for the manufacture of cigarettes. The total strength of the employees in Ghaziabad unit including temporary, casual and contract labour is about 2500.

In the year 1963-64, M/s NARHARI & CHAUDHARY CO. LTD., a leading Tobacco-Exporter of Guntur (A.P.) purchased the present premises of the company which was owned by a soap manufacturer. RAM INDUSTRIAL CORPORATION which is adjacent to the factory.

M/s NARHARI & CHAUDHARY CO. LTD. (known as NCC) was a leading Raw Tobacco Exporter to Czechoslovakia. One of the partners of the NCC had a Czech wife, who was related to the top official of SKODA. Taking advantage of the relationship, NCC managed to procure cigarette making machinery along with packingt machines from SKODA on BARTER SYSTEM. These machines were installed in the present plot under dilapidated sheds.

In the year 1964-65, NCC made an alliance with another reputed and leading export house "NAV BHARAT ENTERPRISE PVT. LTD. GUNTUR" as NCC did not have adequate finance, technical know- how etc. to produce and market cigarettes. However, with this alliance a new company was formed titled as TOBACCO COMPANY PVT. LTD., havingj its registered office at Hyderabad (A.P.).

Subsequent6ly, ITC employed some technical personnel from the then IMPERIAL TOBACCO COMPANY LTD., Bangalore and this attempts was not successful because of lack of funds. After hanging on fire fro months together, they sold M/s ITC to M/s. MARCOPOLO & COMPANY LTD., Mumbai, the oldest tobacconist who had the sole distributorship for M/s GODFREY PHILIPS INDIA LIMITED.

After reconstruction of the buildings, ITC started manufacturing on SKODA machines. The factory ultimately went into commercial production from 1967 against manufacturing charges of the GPI brands. D. MACROPOLO was a limited company and ITC became a limited company after take over. Over a period of time even D. MACROPOLO merged with GPI and ITC became a subsidiary of GPI. Since then there has been a continuous technological up-gradation in the factory which started increasing the filter cigarette production gradually and also started wrapping the cigarette packs. Also new generation tobacco cutting machines were installed to improve the quality.

In 1970 the IMPERIAL TOBACCO COMPANY of India changed its name to INTERNATIONAL TOBACCO COMPANY LTD. This holds a new programme of diversification, which was aligned to national priorities and the phased disinvestment in foreign equity.

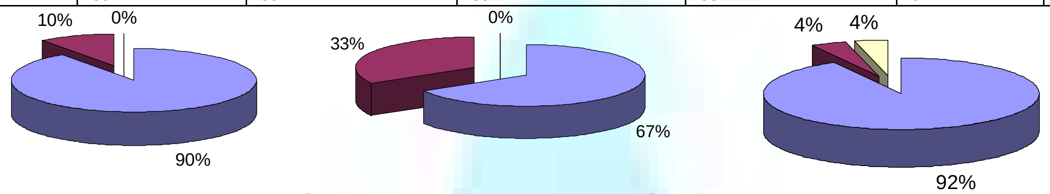
QUESTIONAIRE PERTAINING TO WORKING ENVIRONMENT AND PERSONAL MOTIVATION OF COMPAN PAY ROLL EMPLOY SENIOUR, MIDDLE AND LOWER QUESTIONNAIRE & RESPONSE FROM SENIOR & MIDDLE MANAGEMENT (COMPANY PAY ROLE)

$$\begin{bmatrix} 20 & +\ 30 \\ \textit{Senior} & \textit{Middle} \\ \textit{Managment} & \textit{Management} \end{bmatrix} + \frac{50}{\textit{Lower}\quad \textit{Management}}$$

Table No. 100

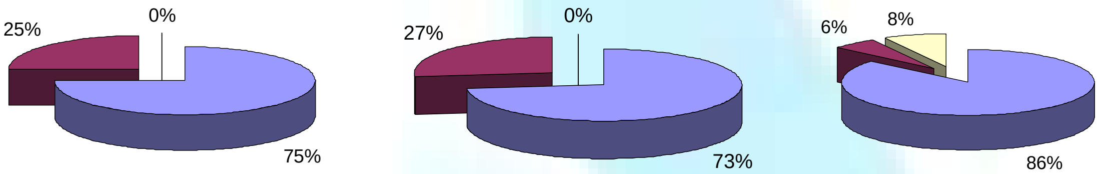
Q1. DO YOU AGREE THAT HRD IS ONE OF THE MOST IMPORTANT FUCTIONAL AREA IN YOUR ORGANISATION WITH RIGHT HRD PHILOSOPHY.

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	18	90%	20	66.6667%	46	92%
b. To some extent	2	10%	10	33.3334%	02	4%
c. No	00	00	00	00	02	4%



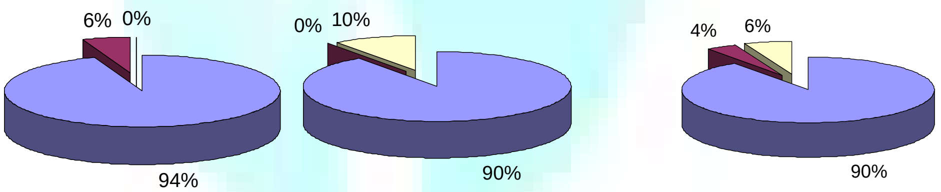
Q2. Is HRD well integrated into culture of organisation and everyone is aware of HRD.

	Senior No of Resp.	Management % of Total	Middle No. Of Resp.	Management % of Total	Lower No Resp.	Management % of Total
a. Yes	15	75%	22	73.333%	43	86%
b. To some extent	05	25%	08	26.6667%	03	6%
c. No	00	00	00	00	04	8%



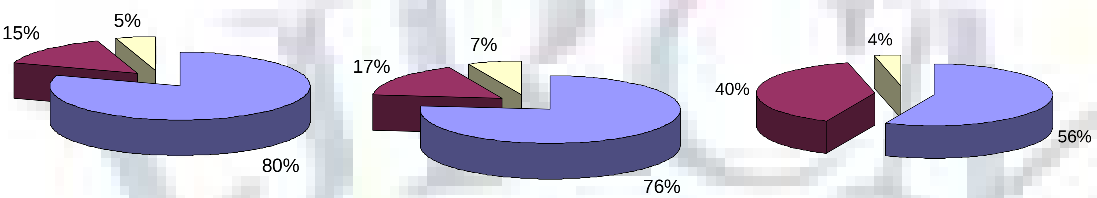
Q3. To what extent has organisation demonstrated innovativeness in HRD practice

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	17	85%	27	90%	45	90%
b. To some extent	3	5%	00	00	02	4%
c. No	00	00	03	10%	03	6%



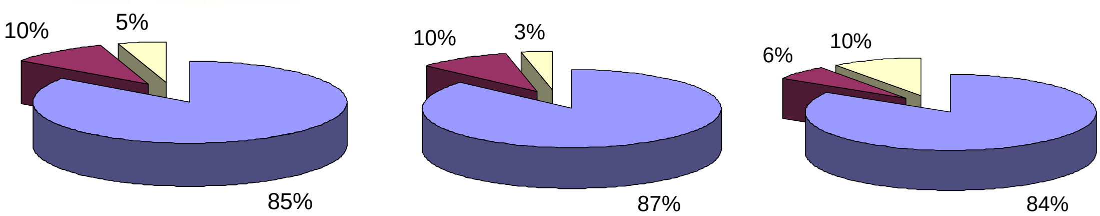
Q4. Do you feel that the chief executive is fully committed to the goals of HRD in your organisation.

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	16	80%	23	76.667%	47	94%
b. To some extent	3	15%	05	16.6667%	00	66%
c. No	01	5%	02	6.6667%	03	6%



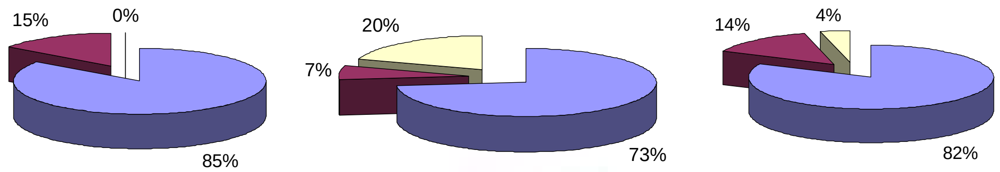
Q5. Do you find that top management is keenly involved most of the time in HRD activities like management development programme etc.

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	17	85%	26	86.6667%	42	84%
b. To some extent	02	10%	03	10%	03	6%
c. No	01	5%	01	3.3333%	05	10%



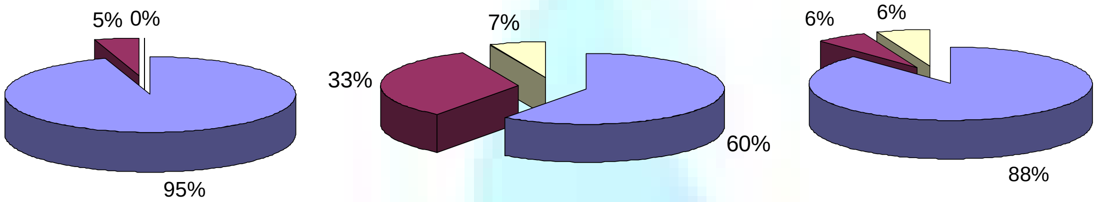
Q6. Do you detailed fenelional knowledge relevent to your own rode in you organisation.

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	17	85%	22	73.333%	41	82%
b. To some extent	03	15%	02	6.6667%	07	14%
c. No	00	00%	06	20%	02	4%



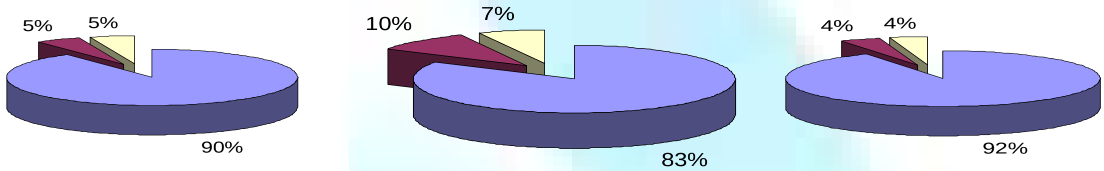
Q7. Did you attend any role effectiveness workshop / Training proframme on role analysis.

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	19	95%	18	60%	44	88%
b. To some extent	01	5%	10	33.333%	03	6%
c. No	00	00%	02	6.6667%	03	6%



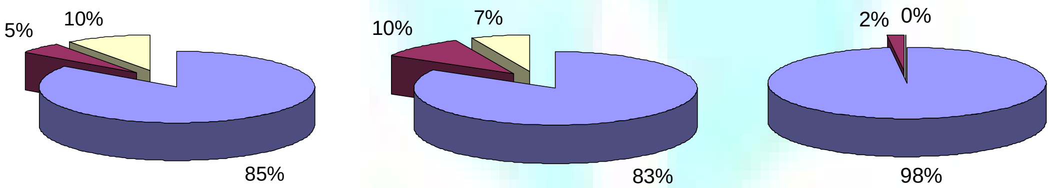
Q8. Did the training help in generating new ideas & improve working.

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	18	90%	25	83.333%	46	92%
b. To some extent	01	5%	03	10%	02	4%
c. No	01	5%	02	6.6667%	02	4%



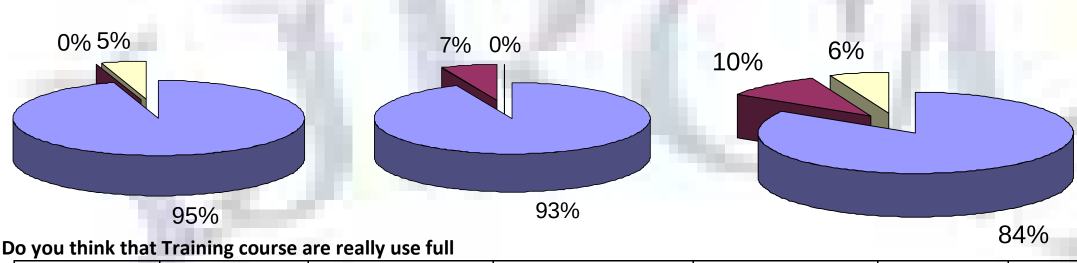
Q9. Did training help in generating new ideas and improve working.

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	17	85%	25	83.333%	49	98%
b. To some extent	01	5%	03	10%	01	2%
c. No	02	10%	02	6.6667%	00	00%



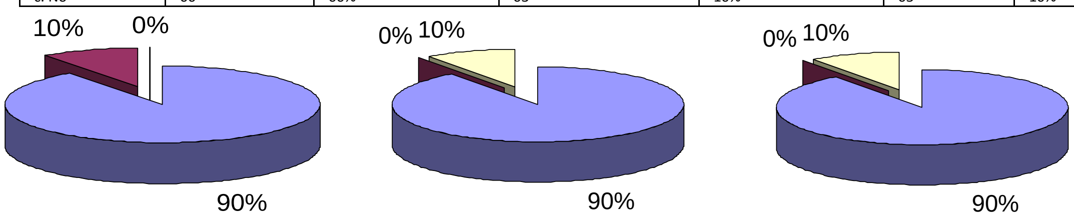
Q10. Did you achieve your objects out of training received and your expectation were fulfilled.

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	19	95%	28	93.333%	42	84%
b. To some extent	00	00	02	6.6667%	05	10%
c. No	01	5%	00	00%	03	6%



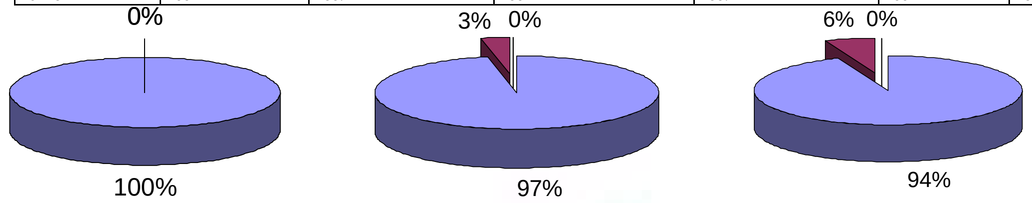
Q11. Do you think that Training course are really use full

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	18	90%	27	90%	45	90%
b. To some extent	02	10%	00	00%	00	00%
c. No	00	00%	03	10%	05	10%



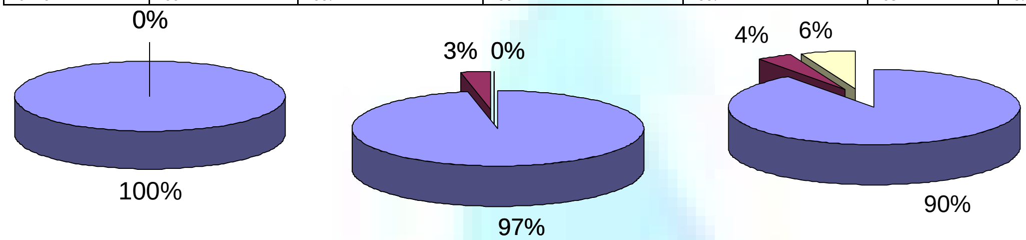
Q12. **Do you prepare in company training or training by out side agencies.**

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	20	100%	29	96.666%	47	94%
b. To some extent	00	00%	01	3.3333%	03	6%
c. No	00	00%	00	00%	00	00%



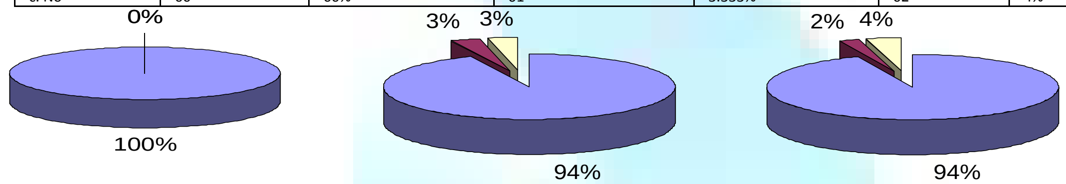
Q13. **Were the problems case students discussed during the course were relevant.**

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	20	100%	29	96.66%	45	90%
b. To some extent	00	00%	01	3.33%	02	4%
c. No	00	00%	00	00%	03	6%



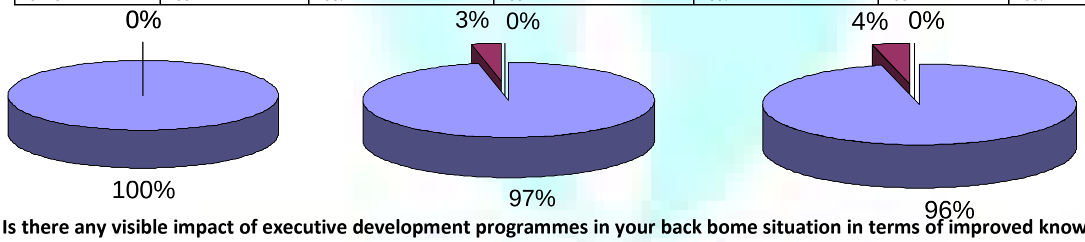
Q14. **Would you recommend other to attend motivation programme.**

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	20	100%	28	93.333%	47	94%
b. To some extent	00	00%	01	3.333%	01	2%
c. No	00	00%	01	3.333%	02	4%



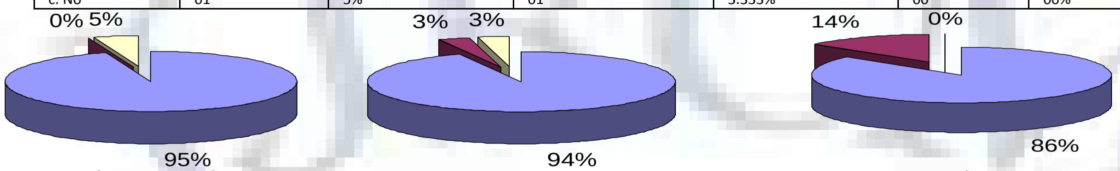
Q15. **Are you able to incorporate the result of training in actual working situations.**

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	20	100%	29	96.666%	48	96%
b. To some extent	00	00%	01	3.333%	02	4%
c. No	00	00%	00	00%	00	00%



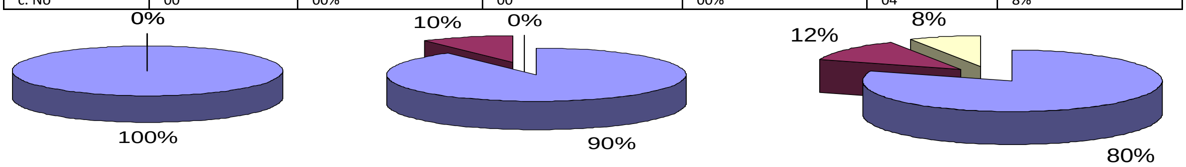
Q16. **Is there any visible impact of executive development programmes in your back bome situation in terms of improved knowledge, skills and altitude of the individuals.**

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	19	95%	28	93.333%	43	86%
b. To some extent	00	00%	01	3.333%	07	14%
c. No	01	5%	01	3.333%	00	00%



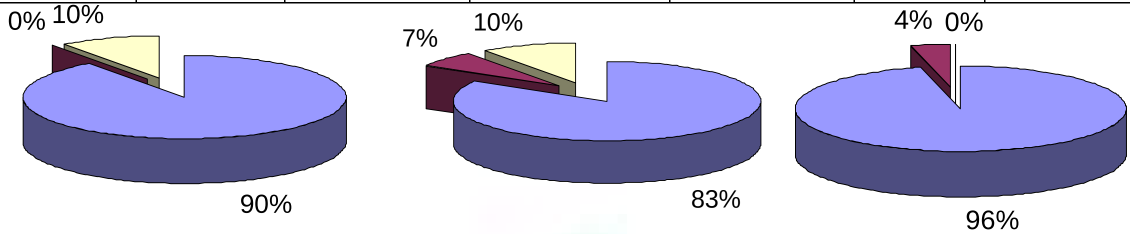
Q17. **Do you feel that performance appraisal system in your organisation liade to an objective assessment of an individual linked to his growth and promotion.**

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	20	100%	27	90%	41	82%
b. To some extent	00	00%	03	10%	06	12%
c. No	00	00%	00	00%	04	8%



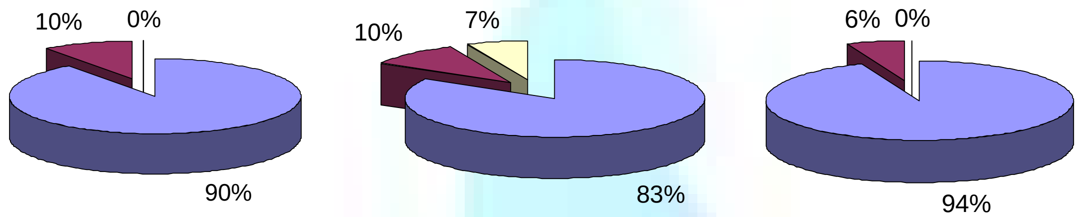
Q18. Do you attend any practice appraisal interview / training an order to achieve the true objective of performance appraisal system.

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	18	90%	25	83.33%	48	96%
b. To some extent	00	00%	02	6.666%	02	4%
c. No	02	10%	03	10%	00	00%



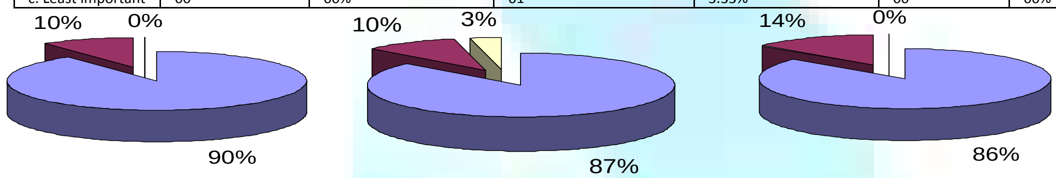
Q19. Whether organisation is understanding potential appraisal and potential development exercise.

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	18	90%	25	83.33%	47	94%
b. To some extent	02	10%	05	10%	03	6%
c. No	00	00%	02	6.666%	00	00%



Q20. Do you think that organisation has maintained same kind of counselling and feedback machanism for helping employees to cope with organisation and practical.

	Senior No of Resp.	Management % of Total	Middle No. of Respondent	Management % of Total	Lower No Resp.	Management % of Total
a Yes	18	90%	26	86.666%	43	86%
b. To some extent	02	10%	03	10%	07	14%
c. Least important	00	00%	01	3.33%	00	00%



FINDINGS

HRD IN I.T.C. – FINDING

In ITC, HRD is an approach to the systematic expansion of people's work related abilities, focused on the attainment of both organizational and personal goals. The focus is on people, who are perceived as possessing skills, potential and who have ability to grow, change and develop. While the accent is on increasing talent and abilities, HRD in ITC works towards development of people in their organisational setting. The effort are balanced between the organisation's need the individual development although this ideal is obviously difficult to achieve, but every attempt in being made to get as near to it as possible.

While the diversity of circumstances of individual public enterprises would dictate circumstances of training of individual manager in variety of ways, the essential pattern are applicable in appropriate forms to all public enterprises, what ever their size. Hence this study of ITC also provides positive direction and guidance to other in the area of Human Resource Development.

To sum up the findings of the data collected and analysed, the researcher proceeds on the basis conclusion, as revealed by the study, that both the management and executives recognize the importance and need of HRD in ITC and company is taking due interest and care to this effect.

EXECUTIVE DEVELOPMENT POLICIES

ITC has clear policy objectives to ensure continuous development of competent management personnel and make best use of both the human and material resources of the business. The training and development policy provides opportunities of advancement and growth to the executives and of promotion from within. It also provide of time both on the job and off the job. Majority of the executives in the middle cadre have been exposed to training and development programmes.

PERFORMANCE APPRAISAL

ITC has a formal performance appraisal and counselling skills system. The target setting programme coupled with the performance appraisal and counselling programme, provide formal processes to ensure manager/employee contact for development and counselling, away from the hustle and bustle of daily activities.

An important feature is the self appraisal and counselling programme. ITC believes that employee are responsible and trustworthy enough to be able to review their own performance in a matured and balanced manner and they have, faith in this.

The basic objectives of the Performance Appraisal System in ITC are:

- Assessment of Performance and Review.
- Individual Training and Development need identification.
- Feedback and Follow-up of development.
- Determine career growth.
- Influence job rotation.
- Extension or termination of contract/promotion.
- Granting incentives and rewards.
- Appreciation / foreign deputation.

The scheme is part of the overall Performance Review System that periodically reviews group/product wise performance and achievement to targets against what is outlined in the Annual Performance Plan.

SUGGESTIONS

1. According to the need of time some innovative HRD practices should be induced and implemented to minimise the ratio with reference for obtaining fair treatment with current appraisal system because the ratio is as follows:-
Senior Management – 85 %
Middle Management – 90%
Lower Management – 90%
2. The Chief executive should be fully committed to the goals of HRD in the organisationas the ratio with reference for obtaining the fair treatment is very less
Senior Management = 20%
Middle Management = 23%
Lower Management = 8% 3
3. The functional knowledge relevant to the role in the organisation is must as the ratio is quite remarkable
Senior Management = 15%
Middle Management = 26%
Lower Management = 18%
4. The training is meant for improving the faculties of mind, working and generating new ideas, but the 100% this attitude is not found in this respect.
Senior Management = 10%
Middle Management = 16.6667%
Lower Management = 4%
5. There is a visible impact of executive development programme in back bone situation in terms of improved knowledge skills and attitudes of the individuals
Sr. Management = 95%
Middle Management = 93.333%
Lower Management = 86%
But do make it 100% full efforts should be induced
6. The performance appraisal system in the organisation leads to an objective assessment of an individual linked to growth and promotion. The ratio to make is 100% is less than the significant value
Sr. Management = 00%
Middle Management = 10%
Lower Management = 20%
7. The organisation should understand the polential appraisal and potential development exercise as is evident from the following percentage (from no & some extent answers)
Sr. Management = 10%
Middle Management = 16%
Lower Management = 6%
8. The organisation should maintain some kind of conselling and feedback mechanism for helping employees to cope with organisation and practical problems.
Sr. Management = 10%
Middle Management = 13.333%
Lower Management = 14%

CONCLUSION

The survey indicated that the integrated approach has brought about a radical change in the overall performance of the company pay roll management, senior, middle and lower. The changes are visible particularly with reference to the following aspects:

- Clarity of role and responsibility at various levels.
- The interpersonal relations and job relation have improved significantly.
- The motivation level and morale have gone up considerably.
- The programme has helped the participants to introspect and modify their behaviour.
- Improved communication approach at various levels.

It has also been observed that these training programmes and workshop have not only improved the overall climate and culture of the organisation, but have also generated better quality of life and satisfaction amongst the particularly amongst the supervisors and workers in their personal lives.

Periodically the management development inputs are being given to staff to ensure that the cohesive team can achieve results. Staff members are also sent on external technical programmes to update their knowledge on the state-of-the art in the field of electronics, telecom and management and are given the opportunity to go on foreign deputation to get an exposure in advance technologies and new areas of interest. Also as part of development input good articles on technical/management areas are circulated to everybody.

To sum up, these programmes have become greatly instrumental in generating a swing for the creating of Learning Organisation. In order that these programme may be able to produce the maximum desired results, it is necessary that these programme are taken to a logical conclusion by covering the entire organisation, including the top management. Steps to achieve these objectives have also been started by ITC.

There is a very positive response to training in ITC. Even some initially viewed training with skepticism, today see it as useful. In ITC, the contribution of the training function makes related to the processes of self-renewal, personal growth, appraisal and counselling, team building and target setting. In ITC, identifying, nurturing and development appropriate leadership values and styles are critical when building a collective ethos. Strategically, over the next year or two, the training function is poised to play a vital in building value leader within the organisation.

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CREDIT POLICY AND ITS EFFECT ON LIQUIDITY: A STUDY OF SELECTED MANUFACTURING COMPANIES IN NIGERIA

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NIGERIA

ABSTRACT

This paper considered the effect of credit policy on the liquidity of manufacturing companies in Nigeria. Credit policy from this perspective was viewed from the angle of controlling or regulating credit sales. The study looked into the problems of non-monitoring and the non- review of the credit policy of organizations as a cause of the liquidity problems associated with credit sales. The study centered majorly on the effects of each of the individual components of credit policy which include the credit standards, the credit period, the cash discount and the collection period on an organization's liquidity. It is also at finding out the type of effects that a company's credit policy has on its liquidity. Four manufacturing companies were selected which include Unilever Nigeria plc, Cadbury Nigeria plc, Nestle Nigeria plc and Nigerian bottling company. The annual reports and accounts of the selected companies as well as questionnaire where relevant data was made use of were statistically analyzed. Analysis of variance (ANOVA) and regression analysis were used in testing the hypothesis. The findings revealed that when a company's credit policy is favourable, liquidity is at a desirable level and lastly, the findings revealed that companies should ensure the monitoring and regular review of their credit policy and the allowance of cash discounts should be minimized as much as possible. We therefore recommended that organization should consider their mission, the nature of their businesses and their business environment before setting up a credit policy.

KEYWORDS

Credit Policy, Credit Sales, Liquidity, Manufacturing Companies.

INTRODUCTION

Credit Policy can be viewed as written guidelines that set the terms and conditions for supplying goods on credit, customer qualification criteria, procedure for making collections, and steps to be taken in case of customer delinquency. This term can also be refers to as collection policy. It's also the guidelines that spell out how to decide which customers are sold on open account, the exact payment terms, the limits set on outstanding balances and how to deal with delinquent accounts.

Business organizations in their attempts to make profit adopt several strategies and one of which is allowing credit to customers. Pandey, (2004) submitted that credit is a marketing tool for expanding sales. Credit sales to customers however, must be well monitored because regardless of an organization's share of the market and demand for its products, if there are no measures put in place to regulate sales made to customers on credit, there could be problems especially those related to liquidity. The importance of credit policy therefore to any business organization cannot be over emphasized because it is a factor that has a strong influence on the cash inflow of an organization from its sales activities which is very critical to any business organization. Every credit policy set by an organization seeks to achieve adequate profitability and flow of cash (liquidity) which are the two basic factors that sustain a business in the present and determines its position in the long run.

A company's credit policy refers to the actions taken by a business to grant, monitor, and collect the cash for outstanding accounts receivable (Maysami, n.d). The credit policy of a typical organization contains the following variables: collection policy, cash discount, credit period and credit standard, while Entrepreneur Media, (2011) classified it as credit limits, credit term, deposits, customer information and documentation. And each of the components of a company's credit policy is used as a tool for monitoring account receivables which is the outcome of credit sales; it covers from the kind of customers that credit may be extended to when actual collections would be made.

There is however no particular universal credit policy that should be adopted by every organization. The credit policy of an organization should therefore be based on its particular business and cash-flow circumstances, industry standards, current economic conditions, and the degree of risk involved. For a manufacturing business organization to achieve its critical objectives of liquidity as it allows credit to customers, concern should be given to its credit policy, it should be adequately planned and its adherence must be strictly emphasized.

The reason for this paper however stemmed from the fact that in manufacturing organizations, it is usual to present, a policy that regulates credit sales to customers. Nowadays companies operate basically on credit rather than cash, both from their suppliers to their customers. The existence of a credit policy itself is however not an issue, the main problem lies in the fact that every manufacturing organization exists in a dynamic and complex environment especially in current times where information technology is the order of the day; trends emerge on a daily basis and the behaviour of customers keep changing. This constantly changing environment affects organizations as well as their decisions and all their policies. A credit policy that is therefore written without an understanding of the market and ample room for change in it, and one that is not frequently revisited could become obsolete in a matter of weeks, it is therefore not enough for these policies to be established but there should exist, flexibility, provisions for review and adjustments, this is necessary to help the organization move with the constantly emerging trends in the world of business. There's no one-size-fits-all credit policy--your policy will be based on your particular business and cash-flow circumstances, industry standards, current economic conditions, and the degree of risk involved.

To be able to proffer adequate answers to the problem identified above, this paper will look at the following objectives:

1. To determine if an organization's credit policy affects its liquidity.
2. To determine whether an organization's collection period affects its liquidity
3. To determine whether an organization's collection policy determines its cash flow.

HYPOTHESIS

H_0: Credit policy does not have a negative effect on the liquidity of manufacturing companies.

The primary aim of this study is to discover the various ways of improving an organization's credit policy and how its liquidity may be improved. This study was purposely undertaken to provide useful information to manufacturing organizations. It will however be beneficial to other organizations as it concerns liquidity which is a major priority in most establishments. The study would also benefit financial analysts, future researchers, students of financial management and the general public.

LITERATURE REVIEW

Credit policy refer to guidelines that spell out how to decide which customers are sold on open account, the exact payment terms, the limits set on outstanding balances and how to deal with delinquent accounts, (Krueger, 2005). According to (Brigham, 1985) credit policy is defined by the credit period, credit standards, the firm's collection policy and any discount given for early payments in an organization. Omolumo, (2003) explained credit policy as the decision variable that influences the amount of trade credit that is invested in receivables which a firm may undertake at any given time. Maysami (n.d) opined that credit policy refers to the actions taken by a business to grant, monitor, and collect the cash for outstanding accounts receivable. Several other authors of literature like (Pandey, 2004), (Atkinson, 2007), etc have defined credit policy in like manner as the combination of such terms as credit period, credit standards, collection policy, cash discounts and credit terms.

As organizations differ so do their credit policy, while most companies have their own policies, procedures, and guidelines, it is unlikely that any two firms will define them in a similar manner. However no matter how large or small an organization is and regardless of the differences in their operations or product, the effect of its credit policies usually bring about similar consequences, that is, their credit policy is either good enough to bring growth and profits or bad enough to bring declination and losses. This similarity is as a result of the aim of every manager which is to collect their receivables efficiently and effectively, thus maximizing their cash inflows.

The issue of credit policy zeroes down to account receivables (Charles, 2009). Accounts receivable, can be broadly defined as uncollected sales or sales on credit. (Nwude, 2003) described accounts receivable as amount owed to a firm by its customers who have purchased goods or services on credit. The accounts receivable is one of the largest assets of a business, amounting to approximately 15% to 20% of the total assets of a typical manufacturing business, (Dunn, 2009).As a result of this tangible proportion which receivables take in the whole of an organization's assets and due to its vulnerability to bad debts and losses, it is necessary to manage it appropriately. Credit policy is the most popular medium of managing and regulating receivables.

According to (Miller, 2008), there are at least four reasons why an organization should have a written credit policy, and they each add to the productivity of the entire organization:

First, the responsibility of managing receivables is a serious undertaking. It involves limiting bad debts and improving cash flow. With outstanding receivables often being a firm's major asset, it is obvious that a reasoned and structured approach to credit management is necessary.

Second, a policy assures a degree of consistency among departments. By writing down what is expected, the arms of the company (whether marketing, production, or finance) will realize that they have a common set of goals. Also, a written policy can delineate each department's functions so that duplication of effort and needless friction are avoided.

Third, it provides for a consistent approach among customers. Decision making becomes a logical function based on pre-determined parameters. This simplifies the decision process and yields a sense of fairness that will only improve customer relations.

Finally, it can provide some recognition of the credit department as a separate entity, one which is worthy of providing input into the overall strategy of the firm. This allows the department to be an important resource to upper management.

From the above, it can be clearly seen that developing a policy is more than a necessity. It is an opportunity to improve the efficiency of the entire organization.

Therefore, the purpose of designing a credit policy is to achieve certain objectives among which are: to minimize bad-debt losses, accounts receivable outstanding, maintaining financial flexibility, optimization of the company's mix of assets, conversion of the receivables to cash on a timely basis, support the goals of the sales and marketing function whenever possible and to respect the overall corporate financial constraints.

Liquidity is represented by the capacity of the company to cover all its obligations that result from current operations (Muntean, 2008). Liquidity characterizes the financial situation of the company; its ability to convert assets into cash or to obtain cash to meet short-term obligations (Pacurari, 2008). Liquidity may be defined as the ability of a firm to meet its financial obligations as they fall due.

''There is a quantity dimension and a time dimension to liquidity. If you hold cash or readily realisable assets such as government securities, your liquidity is soundly based. If it consists of debtors, it is dependent on their ability and willingness to pay. If it consists of goods, liquidity is a function of the saleability of those goods and may be low if they are not in demand'' (Miller, 2008).

The statement above analyzes liquidity with the components of current assets and their ability to be converted into cash. The balance sheet shows the values of these components and enables users to measure the liquidity of the firm, i.e. the relationship between current assets and current liabilities.

Therefore the efficient liquidity management involves planning and controlling current assets and current liabilities in such a manner that eliminates the risk of the inability to meet due short-term obligations, on one hand, and avoids excessive investment in these assets, on the other. This is due in part to the reduction of the probability of running out of cash in the presence of liquid assets. However the ultimate measure of the efficiency of liquidity planning and control is the effect it has on profits and shareholders' value. The working capital approach to liquidity management has long been the prominent technique used to plan and control liquidity.

To measure liquidity, Farris & Hutchison (2002) posited that corporate liquidity is examined from two distinct dimensions, the static or dynamic views. The static view is based on commonly used traditional ratios, such as current ratio and quick ratio, calculated from the balance sheet amounts. These ratios measure liquidity at a given point in time whereas dynamic view measures ongoing liquidity from the firm's operations. As a dynamic measure of the time it takes a firm to go from cash outflow to cash inflow which is measured by cash conversion cycle.

According to (Szabo, 2005) for a credit policy to be effective it must not be static, the policy must be reviewed from time to time regardless of how serviceable it proves to be. The review and adjustments are necessary because of dynamics in business caused by changes in its internal and external environment. He also added that a successful credit policy should benefit both account receivables and sales; this can be achieved by reciprocation between concerned departments (sales and credit). Szabo suggested regularly scheduled meetings between the sales manager, the business and finance manager as appropriate to promote understanding of policies and bring to light problems with policy and procedure, prior to a formal credit policy review, also effective communication between the sales and credit department is critical, to know the point at which changes may be made to credit policy.

Farris & Hutchison (2002), posited that corporate liquidity is examined from two distinct dimensions, the static or dynamic views. The static view is based on commonly used traditional ratios, such as current ratio and quick ratio, calculated from the balance sheet amounts. These ratios measure liquidity at a given point in time whereas dynamic view measures ongoing liquidity from the firm's operations. As a dynamic measure of the time it takes a firm to go from cash outflow to cash inflow which is measured by cash conversion cycle.

In a study conducted by (Moss & Stine, 1993) on retail firms revealed that firm size is a factor in the length of the cash conversion cycle. The study indicated that larger firms have shorter cash conversion cycles. Another significant finding of the same study is that when the cash conversion cycle is compared to the current and quick ratios, a significant positive relationship is found.

The studies that empirically examine the relationship between profitability and liquidity carried out by Jose, (1996) showed that there exists a significant and negative relationship between profitability and cash conversion cycle (liquidity).

Another study conducted by (Hutchison et al 2007) indicated a direct correlation between shorter cash conversion cycle and higher profitability for 75% of the industries examined. Schilling (1996) mentioned optimum liquidity position, which is the minimum level of liquidity that is necessary to support a given level of business activity. He then set up the relationship between the cash conversion cycle and minimum liquidity required such that if the cash conversion cycle lengthens, the minimum liquidity required increases. Conversely, that if the cash conversion cycle shortens, the minimum liquidity required decreases.

METHOD

The research work was carried out on the manufacturing industry in Nigeria based on a sample of four manufacturing companies in Nigeria. The research work was designed in such a way that data was generated from the annual reports and accounts (2003-2007) of these companies as part of the secondary data.

The sample size of this project constitutes four Nigerian manufacturing companies. They include: Cadbury Nigeria plc, Nestle Nigeria plc, Nigerian bottling company and Unilever Nigeria ltd. A total number of 100 copies of a questionnaire would be administered, 25 for each of sample company. These companies where selected using judgmental sampling technique in order to have a representation of the population. The judgmental sampling technique involves the use of best of judgment in selecting the sample from the population. The companies were selected because of their size and wide range of products which are all over the country. To the best of the researcher's judgment, the companies make a good representation of the manufacturing industry of Nigeria.

The expert opinion validity stems from the review of the questionnaire by an expert in the field during the pilot study carried out by the researcher. Sampling validity also stems from the selected sample companies which make a good representation of the population which is the manufacturing industry of Nigeria while the reliability test used was the Cranach's reliability test, used to test the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-point formatted questionnaires or scales (with a rating scale of: 1 = poor, 5 =excellent) the higher the score, the more reliable the generated scale is. If the results obtained from the test is 0.7 and above, then the instrument is reliable (Archibong, 2004).

Data analysis as related to this research work involves statistically analyzing the data collected to form a basis of accepting or rejecting the hypothesis. Data from the questionnaire was analyzed using percentage statistical method by the conversion of frequencies into percentages through the use of special software for statistics which is called Statistical Package for Social Sciences (SPSS). For testing the hypothesis, a statistical non-parametric test called Analysis of Variance (ANOVA) was used because it measures or tests three or more independent means. The regression analysis was also used in testing the secondary data.

However for the purpose of this study, the regression analysis will require the specification of a model for reasonable analysis shown thus:

Y_1 = f(X)

Y_2= f(X)

Where:

X= DCP (Debtor's Collection Period)

Y_1= RCA (Return on Current Assets)

Y_2= CCC (Cash Conversion Cycle

EMPIRICAL RESULTS

TABLE 4.1: RATE OF RESPONSE BY RESPONDENTS

Questionnaire	Respondents	Percentage (%)
Returned	85	85%
Not Returned	15	15%
Total Distributed	100	100%

Source: researcher's survey

The above table shows that a total number of 100 questionnaires were administered 25 were administered to the administrative staff Unilever Nigeria Plc, 25 to Cadbury Nigeria Plc, 25 to Nigerian Bottling Company and the remaining 25 to Nestle Nigeria Plc. Out of which 85% were returned and they were all filled by the respondents, 15% of the questionnaires were not returned at all.

TABLE 4.2: EFFECTS OF CREDIT POLICY ON LIQUIDITY

THE LENGHT OF THE COLLECTION PERIOD AFFECTS LIQUIDITY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	7	8.2	8.2	8.2
	Disagree	28	32.9	32.9	41.2
	Undecided	17	20.0	20.0	61.2
	Agree	27	31.8	31.8	92.9
	Strongly Agree	6	7.1	7.1	100.0
	Total	85	100.0	100.0	
	Mean	**2.96**			
	Standard Deviation	**1.128**			

Source: researcher's field work

The table shows that 32.9% of the respondents strongly disagree that the length of the collection period affects liquidity, 31.8% agree to the contrary, 20% are unsure, 8.2% strongly disagree and 7.1 agree. Majority were of the opinion that the length of the collection period does not affect liquidity. The question has a mean of 2.96 and a high standard deviation of 1.128, this means that most of the responses were 2, indicating that respondents disagree to the statement that the length of the collection period affects liquidity.

TABLE 4.3 THE CREDIT TERMS ARE REASONABLE ENOUGH TO INDUCE PROMPT PAYMENT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	2.4	2.4	2.4
	Disagree	19	22.4	22.4	24.7
	Undecided	9	10.6	10.6	35.3
	Agree	52	61.2	61.2	96.5
	Strongly Agree	3	3.5	3.5	100.0
	Total	85	100.0	100.0	
	Mean	**3.41**			
	Standard Deviation	**.955**			

Source: researcher's field work

The table shows that 61.2% of the respondents agree that the credit terms of their organizations are reasonable enough to induce prompt payment, 22.4% disagree, 10.6% are unsure, 3.5% strongly agree and 2.4% strongly disagree. Majority were of the opinion that manufacturing organizations set credit terms that are reasonable enough to induce sales. The question has a mean of 3.41 and a standard deviation of 0.955. This means that most of the responses were 4, indicating that the respondents agree that their credit terms are reasonable enough to induce prompt payment.

THE PRODUCTION CYCLE IS CONSIDERED WHEN SETTING THE CREDIT STANDARDS AND COLLECTION PERIOD

TABLE 4.4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	2.4	2.4	2.4
	Undecided	7	8.2	8.2	10.6
	Agree	55	64.7	64.7	75.3
	Strongly Agree	21	24.7	24.7	100.0
	Total	85	100.0	100.0	
	Mean	**4.12**			
	Standard Deviation	**.644**			

Source: researcher's field work

The table shows that 64.7% agree to the subject that production cycle is considered when setting credit standards and collection period, 24.7% strongly disagree to the subject, 8.2% are indecisive and 2.4% disagree to the contrary. Majority were of the opinion that the production cycle of manufacturing organizations are considered before the credit standards are set. The question has a mean of 4.12 and a standard deviation of 0.644. This means that most of the responses were 4, confirming the statement that the production cycle is considered when setting the credit standards and collection period.

WHAT EFFECT HAS THE CREDIT POLICY HAD ON THE ORGNIZATION'S OBLIGATIONS TO ITS OWN CREDITORS

TABLE 4.5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Negative	3	3.5	3.5	3.5
	Positive	80	94.1	94.1	97.6
	4	2	2.4	2.4	100.0
	Total	85	100.0	100.0	
	Mean	**2.01**			
	Standard Deviation	**.362**			

Source: researcher's field work

The table shows that 94.1% of respondents are of the opinion that the credit policy has a positive effect on the organization's ability to satisfy obligations to its own creditors, 3.5% are of the opinion that the organization's credit policy has a negative effect on its obligation to its own creditors. Majority were of the opinion that credit policy has a positive effect on its creditors.

TABLE 4.6: POOLED DATA OF THE DCP, CCC AND RCA

COMPANY	YEAR	DCP	CCC	RCA%
UNILEVER NIGERIA PLC	2003	21	162	29.2
	2004	17	74	38.5
	2005	83	131	18.4
	2006	39	117	-10.6
	2007	37	81	21.7
CADBURY NIGERIA PLC	2003	68	113	38.5
	2004	84	159	30.9
	2005	111	143	20.5
	2006	67	9	-11.5
	2007	25	65	-30.6
NESTLE NIGERIA PLC	2003	7	70	47.7
	2004	10	70	43.8
	2005	11	60	45.3
	2006	5	68	42.4
	2007	6	43	39.5
	2003	10	0	53.5
	2004	7	20	29.8
	2005	3	82	24.6
	2006	1	71	18.5
	2007	1	70	33.2

Source: computations from annual reports and accounts (2003-2007)

Table above shows the pooled debtors' collection period (DCP), return on current assets (RCA) and cash conversion cycle (CCC) from 2003 to 2007 for Unilever Nigeria Plc, Cadbury Nigeria Plc, Nestle Nigeria Plc and Nigerian bottling company.

TABLE 4.7: MEAN AND STANDARD DEVIATION OF POOLED DATA

	Mean	Std. Deviation	N
DCP	30.65	33.503	20
CCC	80.40	45.648	20
RCA	26.165	21.640	20
Valid N (listwise)			

Source: researcher's field work

The table above shows that the mean of the debtor's collection period is 30.65 showing the debtor's collection period of the companies on the average. The cash conversion cycle of all the companies on the average was 80.4 and the return on current assets of the companies on the average was 21.64.

TABLE 4.8 CRANACH'S RELIABILITY TEST

Cranach's Alpha	N of Items
.723	16

Source: researcher's field work

INTERPRETATION

Alpha coefficient ranges in value from zero to one and may be used to describe the reliability of factors extracted from dichotomous (that is, questions with two possible answers) and/or multi-point formatted questionnaires or scales (that with a rating scale of: 1 = poor, 5 =excellent) the higher the score, the more reliable the generated scale is.

With the above reliability coefficient is 0.723 which is above 0.7, it can therefore be concluded that the research instrument is reliable.

HYPOTHESES TESTING

H_0: Credit policy does not have a negative effect on the liquidity of manufacturing companies.

TABLE 4.9: ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.389	3	.130	.573	.634
Within Groups	18.317	81	.226		
Total	18.706	84			

Source: researcher's field work

Level of significance: 0.05
Calculated F-value: 0.573
Tabulated F-value: 3.96

INTERPRETATION

The result shows that the tabulated value of F (3.96) is greater than the calculated value of F (0.573) at a 5% level of significance. This implies that the null hypothesis should be accepted and the alternative should be rejected. Thus credit policy does not have a negative effect on the liquidity of a manufacturing company.

TABLE 4.9.1: MODEL SUMMARY (b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.548(a)	.300	.261	39.229

Predictors: (Constant), DCP

Source: researcher's field work

The table above shows the model summary. It shows how much of the variance in the dependent variable (Cash Conversion Cycle) is explained by the independent variable (Debtor's Collection Period). The R square value is 0.300. This means that the Debtor's Collection Period explains 30% of the variance in Cash Conversion Cycle. The adjusted R square shows .261, while the standard error of estimate indicates 39.229 which represents the error term that was not captured in the model.

TABLE 4.9.2 COEFFICIENTS (b)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	57.515	12.031		4.781	.000
	DCP	.747	.269	.548	2.780	.012

Dependent Variable: CCC

Source: researcher's field work

The table above shows that the beta coefficient is 0.548 with a significance level of 0.012. This indicates that the effect of the debtors collection period (which represents credit policy) on the companies' Cash Conversion Cycle (which represents profitability) is positive and significant, which means that as the Debtor's Collection Period falls, the Cash Conversion Cycle also falls. This also supports the ANOVA results to accept the null hypothesis that Credit policy does not have a negative effect on the liquidity of manufacturing companies.

INTERPRETATION

The result that credit policy does not have a negative effect on the liquidity of manufacturing companies implies that a favourable credit policy would result in a favourable liquidity position; this is explained by the results of the analysis of the secondary data which shows that as the debtor's collection period falls, the cash conversion cycle also falls.

CONCLUSION

From the findings of this study, the researcher draws the following conclusions:

1. The consideration of the credit period allowed to organizations by their own suppliers when setting the credit standards and collection period will minimize the problem of cash flow and liquidity
2. Companies have a better chance of maintaining a desirable level of liquidity if their credit policy is regularly revisited and adjusted.

There is no particular recommended credit policy for organizations (Brigham, 1999); credit policy should therefore be established considering factors as: the nature of the organization's business, its share of the market, its immediate external environment and the level of competition

RECOMMENDATIONS

1. The monitoring review and of credit policy can reduce the issue of having to deal with the dilemma involved in choosing between profitability and liquidity because new trends relating to customer behaviour and competition would be discovered which would help make effective adjustments to the credit policy.
2. Organizations should consider their mission, the nature of their businesses and their business environment before setting up a credit policy and the credit policy should not be disregarded after it is created.

SUGGESTIONS FOR FURTHER STUDY

The following are the researcher's recommendation for further research:

1. The scope may be expanded to the banking and oil sector.
2. Issue of cash discount and bad debts could be considered

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CREDIT RISK MANAGEMENT IN STATE BANK OF INDIA - A STUDY ON PERCEPTION OF SBI MANAGER'S IN VISAKHAPATNAM ZONE

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ABSTRACT

Credit risk management is not an 'off-the-shelf product. It is a 'whole-time' and 'organization-wide' function. Common-sense dictates that people responsible for targets under business-growth are ill suited to address 'risk' inherent to credit and its management. Credit risk management should therefore be separated form and sufficiently be independent of the business lines. Risk Management can be defined as systematic identification and analysis of the various loss exposures faced by a firm/individual and the best methods of treating the identified loss exposures consistent with the firms'/individuals' objectives. The choice of appropriate strategies for control of credit risk by individual banks depends on their priorities and risk-appetites. It encompasses designing policies for every major aspect of credit administration to ensure that credit deployment and the accompanying risk-management processes are controlled within the known risk/return parameters. Hence the present study focused on the credit approval process in SBI, manager's awareness towards credit risk management and risk control strategies. The major research findings are based on the primary data. The date has been collected by using elaborate questionnaires for bank managers working in State Bank of India of Visakhapatnam zone. The researcher identifies credit is the real activity that should be managed to generate profitability by keeping the three cardinal principles of banking in mind "Liquidity, Solvency and Profitability". With the thinning of spreads in the deregulated and liberalized economy, risk management has become all the more crucial. So proper mechanism should be put in place for anticipation and identification of risks, together with a suitable mechanism to deal with such risks in an efficient and pro-active manner. Majority of the respondents strongly felt that the system followed in the banks need a review in term of simplifying various forms used and procedures followed for sanctioning loan. It is suggested that the bank should establish overall credit limits at the level of individual borrowers/counterparties, and groups of connected borrowers/counterparties in one industry.

KEYWORDS
Credit, SBI, Visakhapatnam, Risk, Finance.

INTROUDUCTION

In 1988, the Basel Capital Accord has become the global standard by which the financial soundness of banks is assessed.[1] The Basel methodology requires banks to maintain a minimum ratio of capital to total risk-adjusted assets – that is, the total for all of a bank's assets, after the amount of each asset has been multiplied by the relevant risk weighting of 8 per cent. The Basel Committee's new capital framework proposals will have important implications for developed and developing countries alike. The Basel Committee developed a simple risk measurement framework that assigned all bank assets to one of four risk-weighting categories, ranging from zero to 100 per cent, depending on the credit risk of the borrower. Thus, the Basel Committee is already working on the scope of application of the Accord, capital and capital adequacy, risk exposure and assessment. The Risk Management has come at the central stage in the New Basel Capital Accord.

CREDIT RISK MANAGEMENT IN BANKS

The post-liberalization years have seen significant pressure on banks in India with a few banks repeatedly showing signs of distress. One of the primary reasons for this has been the lack of effective Credit Risk Management systems and practices in Indian banks. With an increasingly competitive and volatile banking environment here to stay, a comprehensive and integrated risk management system will soon become synonymous with survival for banks.

In generic terms, Risk Management can be defined as systematic identification and analysis of the various loss exposures faced by a firm/individual and the best methods of treating the identified loss exposures consistent with the firms'/individuals' objectives. Extending the same analogy, SBI defined "the credit risk management as a process that puts in place systems and procedures enabling."

- Identify and measure the risk involved in a credit perception, both at the individual transaction and portfolio level.
- Evaluate the impact of exposure on Bank's Balance Sheet/Profit.
- Assess the capability of risk-mitigators to hedge/insure risks, and
- Design an appropriate risk management strategy to arrest 'risk migration' leading to deterioration in the credit-quality/default risk.

The choice of appropriate strategies for control of credit risk by individual banks depends on their priorities and risk-appetites. It encompasses designing policies for every major aspect of credit administration to ensure that credit deployment and the accompanying risk-management processes are controlled within the known risk/return parameters.

Credit risk management is not an 'off-the-shelf product. It is a 'whole-time' and 'organization-wide' function. Common-sense dictates that people responsible for targets under business-growth are ill suited to address 'risk' inherent to credit and its management. Credit risk management should therefore be separated form and sufficiently be independent of the business lines.[2]

OBJECTIVES OF THE STUDY

1. To examine credit approval process in State Bank of India.
2. To study the branch manager's awareness towards credit risk management system in State Bank of India.
3. To study the risk control strategies followed by the managers.
4. To suggest appropriate measures to SBI.

METHODOLOGY

The present study is based on both primary and secondary data.

The primary data for the study are collected by using elaborate questionnaires for bank managers working in State Bank of India of Visakhapatnam zone. The data on risk management perception and practices relating to the credit risk management, risk control strategies and credit approval process were obtained through responses to questionnaires and in personal interviews with senior credit, treasury executives and bank managers of State Bank of India. The secondary data has been collected through RBI bulletins, SBI monthly magazines, various research articles etc.

The study has taken into consideration of bank managers in State Bank of India of Visakhapatnam zone. The study covered the various Mandalas in Visakhapatnam zone. The sample is drawn from the banks which are spread over the zone. The total sample of 40 respondents was selected the respondent managers by using convenient random sampling technique.

CREDIT APPROVAL PROCESS IN SBI

State Bank of India should keep in place an approved and documented analytical framework that helps credit officers in:

Assessing relative risks to a units' cash flow.

Judging whether a unit is able to generate sufficient cash flows from internal operations to service the debt.

Measuring the sufficiency of the 'credit – mitigators' in arresting deterioration in credit – quality and approving credit. Secondly, such a document helps SBI in maintaining uniformity and consistency of standards in granting credit across the organization.

The approved document should address issues like-

- Identification of borrower.
- Identification of associates – groups; common ownership; family ties; strong connecting links.
- Historical analysis of the unit – balance sheet, profit and loss account; cash flow and trends; assessment of managerial competence – promoter's background/track record/economic and social status/ability to absorb unanticipated financial costs/technical competence/propensity to keep up the promises/repay the loans/transparency in operations etc.
- Current position of the unit – impact of risk associated with non-financial information namely internal factors – like scale of economies, technology adopted, income-elasticities, superior resources, product differentiation, and external factors – like government policies, domestic and international competition, technology development, shift in consumer behaviour etc., on the unit's competitive position in the given market and in turn the reliability of its projected cash flows; stress being on factors that will drive future financial performance and hence analysis preferably on "gone-concern" lines; valuation of assets in balance sheet at market price under distress sale conditions and acceptable short-falls there under.
- Future position of the unit – competitiveness, products, management depth, forecasts and cash flows; analysis on the lines of "going-concern;" SBI's ability to fund the loan vis-à-vis its capital adequacy.
- Prescription of benchmark financial ratios. Exceptions under benchmark ratios may also be defined.
- Estimating credit-requirements and dispensation mode.
- Securities – third party guarantees/guarantee of promoters; financial securities; in case of term loans-charge on fixed assets; infrastructure projects – charge on borrowers rights and future cash flows through appropriate covenants; collaterals as a certain percentage of facility.
- Valuation method of fixed securities proposed.
- Documentation – required covenants to cover the proposed securities; legal status of the borrowers.
- Lending under consortium arrangements – independent assessment of risks/to fall in line with the leader's assessment and recommendations.
- Pricing of loans: credit rating/assessing risk-return relationship; profitability of overall relationship; factoring all the imbedded costs into price.
- Sanctioning of high value loans-credit-committees/grid concept to pool all the available wisdom in to credit decisions.
- Sanctioning of ad hoc/temporary additional limits period; interest; other precautions.

Once credit-granting process is defined and put in operation, top-management should ensure that loan proposals coming for sanction are provided with sufficient information that results in a sound credit decision. It should result in a clear shift from a "business-is-safe-and-secured syndrome" to "risk is identified, measured, priced and is acceptable."

Thus, it is often noticed in organizations that in absence of clear cut instructions, people often tend to overlook even important issues under the presumption that others are taking care of. To obviate it, a well-drafted mechanism of monitoring loan accounts with a clear demarcation of roles and responsibilities of branches and administrative offices on the following lines.

PERCEPTION ON ROLE OF CREDIT RISK MANAGEMENT

In the lexicon of Bankers of the previous decades, intermediation occurred when banks took in funds from depositors and then lent the funds to businesses and individuals, holding such loans in their books until the loans matured, were rolled over or went belly up. Credit risk was the major risk incurred by the banks since interest rate risk could be managed by making sure the contractual interest rates on the loans vary with the cost of fund. Over the past 15 years, however, traditional intermediation has changed dramatically. A variety of products, including loan securitization, and the greater risk exposures to which the borrowers are subjected, have transformed the levels of credit risk for the banks and increased the need to manage the risk in a more sophisticated manner. Credit risk is most simply defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with the agreed terms. The goal of credit risk management is to maximize a bank's risk adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage credit risk in individual loans or transaction as well as credit risk inherent in the portfolio. They should also consider the relationship between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organization.

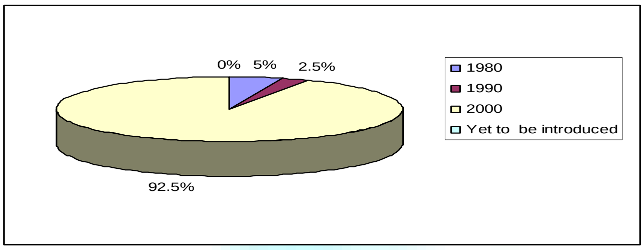
With rapid economic changes and the opening up of the Indian economy, the range of industries and services as well as the levels of competition, the threat of obsolescence of technology/product and the cost structure of the economy, is undergoing extensive transformation. Because of this, the financial risk to individual business, industries and even individuals has increased significantly. Both the numbers of start-ups and bankruptcies are increasing rapidly. In this environment, the credit risk of traditional lenders like banks has increased greatly. At the same time the intense competition is reducing the spread between income and cost. The level of non-performing assets of banks has increased beyond acceptable levels. The introduction of new products like securitized assets, in the market, has created a new dimension of credit risk. Under the circumstances, Indian banks need to undertake. Comprehensive review of their processes for identification of credit risk, credit assessment and scoring, credit administration and capital allocations to meet regulatory norms.

In the management of credit risk generally a scientific quantitative model is not available as a basis or the rating system in most banks. The rating systems do not truly reflect the credit risk because they incorporate weightages for various control and monitoring factors, which do not necessarily convey a credit risk. Even where risk parameters are included, some of the key financial parameters like return on capital employed, turnover, efficiency etc., which reflect risk, are omitted for the rating purposes, eventhough some of these factors are considered while assessing the credit need. Frequently, conflicting outcomes are thrown up in grading based on the internal ratings of the banks and the Income Recognition and Asset Classification norms specified by Reserve Bank of India. Thus, taking into account all, the factors suitable and appropriate ground rules and parameters are proposed for a credit risk rating model for Indian banks.

TABLE.1 THE IMPLEMENTATION OF CREDIT RISK ASSESSMENT IN SBI

Years	No. of Respondents	Percentage
1980	2	5.00
1990	1	2.50
2000	37	92.50
Yet to be introduced	0	0
Total	**40**	**100.00**

FIGURE: 1

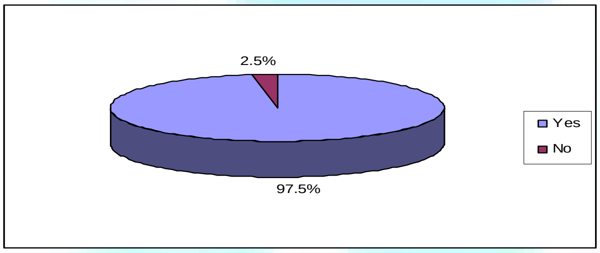


From this conceptual understanding the present study has been thoughtfully directed to include focus on implementation of credit risk assessment. Table.1 interestingly describes that, highest number of respondents (37) with percentage effectiveness of 92.5 was observed for the year 2000, whereas only 2 to 1 respondents opined with 5 to 2.5 per cent for the year 1980 and 1990. Thus, the response is interpreted as the effective implementation of credit risk assessment in SBI was done from 2000, which has given an opportunity to SBI to assess the risk by following various traditional approaches and rating models.
In the well developed risk management system, there has to be a credit risk committee consisting of personnel at the senior management level can assist the risk management committee of the board. Hence, the credit risk committee should periodically review the credit risk granting criteria and how the bank's credit sanction process is functioning and put up the review to the board.

TABLE.2 SEPARATE CREDIT RISK COMMITTEE REPORTING TO THE BOARD

Response	No. of Respondents	Percentage
Yes	39	97.50
No	1	2.50
Total	**40**	**100.00**

FIGURE: 2

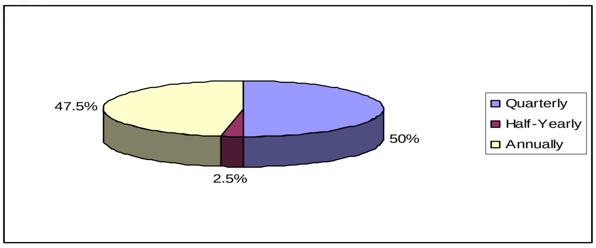


Against this the present study has been thoughtfully directed to focus on the maintenance of separate credit risk committee reporting to the board. Table.2 revealed that, there is highest number of respondents (39) with percentage effectiveness of 97.5 was observed with positive response and only one respondent has given his opinion in negative with a percentage of 2.5. Thus, the response is interpreted as the effective management of credit risk committee reporting to the board in SBI to assess the position of credit flow and manage the risk accordingly.
With the vast functions of banking institutions, the total assets of a bank are classified under the four groups such as loss assets, doubtful assets, sub-standard assets and standard assets on the basis of time period during which the assets remain NPA and in case of term loans the duration which the principal and interest remain overdue. On the basis of the quality of the assets, prospects of the realization of the security and the erosion overtime in the value of security charged to the banks, the banks should make adequate provisions for such assets. Thus, the period of review of provisions depends on the time period of NPAs and term loans.[3]

TABLE.3 THE PERIOD OF REVIEW OF PROVISIONS

Periods	No. of Respondents	Percentage
Quarterly	20	50.00
Half-Yearly	1	2.50
Annually	19	47.50
Total	**40**	**100.00**

FIGURE: 3



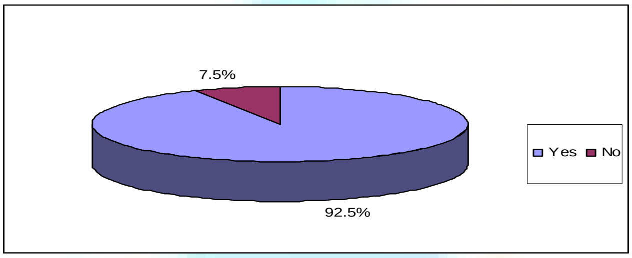
Against this conceptual understanding the respondents from the sample organization for the study were contacted to give their perception on the period of review of provisions. As per the opinion of respondents it is understood that there is highest number of respondents (20) with percentage effectiveness of 50 was observed for quarterly review, the next higher number of respondents (19) with percentage effectiveness of 47.5 was observed for annual review and only one respondent opined for half-yearly review with a percentage of 2.5. The response is interpreted as the period of review of provisions is for quarterly and annual in SBI to facilitate easy assessment of NPAs.

In the management of credit risk, Banks should establish overall credit limits at the level of individual borrowers/counter-parties, and groups of connected counter-parties/borrowers, groups of borrowers in one industry or type of activity. Establishment of exposure limits on individual borrowers, a promoter group or set of associate concerns and on exposure to an industry or economic sector is an important part of credit risk management process. These limits can be related to the size of capital of the lending bank. For instance, it can stipulated that exposure to a single company or a borrower should not exceed 25 per cent of the Bank's capital, exposure to a single group should not exceed 50 per cent of the Bank's capital and exposure to a single industry should not exceed 10 per cent of the Bank's total advances.

TABLE.4 LIMITS LAID RELATING TO CONCENTRATION OF RISK WITH SPECIFIC GROUPS OF BORROWERS

Response	No. of Respondents	Percentage
Yes	37	92.50
No	3	7.50
Total	**40**	**100.00**

FIGURE: 4



Against this understanding to elicit the respondents opinion from the sample organization on limits laid relating to concentration of risk with specific groups of borrowers are ascertained as that, there is highest number of respondents (37) with percentage effectiveness of 92.5 was observed with positive response and the remaining 3 respondents with a percentage of 7.5 are opined with negative response. The response is analyzed as the effective limits laid relating to concentration of risk with specific groups of borrowers in SBI, which has made the borrowers restricted in their borrowing capacity.

With the growing trend of credit flow, the management of credit risk has become complicated to convert ratings for different risk factors into identifiable prices, banks have to develop a concept of risk free return. Risk is normally defined as a variability of the rate of return. The risk adjusted price of credit for a unit can be:[4]

$r_K = I + n_K + d_K$

Where I = risk free rate of return

n_K = adjustment for industrial risk or firm risks.

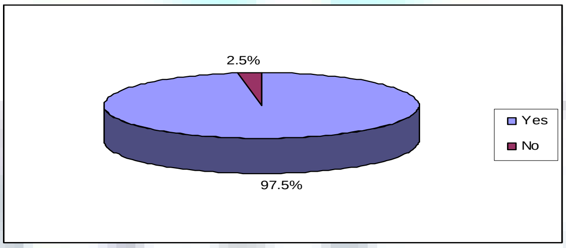
d_K = adjustment for management risk.

For large advances the decision of rating and pricing of credit should ideally be taken by a group of people who would individually rate the proposal and thereafter a combination would give the fair and unbiased price of risk for a proposal. The individual rating of each member would depend on his perception.

TABLE.5 CREDIT PRICING RELATING TO LEVEL OF RISK

Response	No. of Respondents	Percentage
Yes	39	97.50
No	1	2.50
Total	**40**	**100.00**

FIGURE: 5



From this the present study has been directed to focus on credit pricing relating to level of risk. Table.5 interestingly describes that there is highest number of respondents (39) with a percentage effectiveness of 97.5 was observed with positive response, whereas only one respondent with the percentage of 2.5 was opined as negative response. Therefore, the response is interpreted as the effective relationship of credit pricing to level of risk in SBI, which has taken initiative by SBI, to have a fresh look at the pricing mechanism is a step in the right direction.

In the management of credit risk there has to be a clearly defined set of processes which are in conjunction with a well defined policy. This policy is determined and approved by a credit risk management board constituted by the top management of the organization. The expected results of systematic management of credit risk will be possible for an organization when it follows the procedure. The results will be more effective and implementable under any context when a well-defined policy holds water. One such most important policy document to be prepared by a financial institution like SBI is on loans of various types. It must be clearly understood that the effectiveness of working of banking institutions will be exclusively on their performance in deposits and advances. Hence, it is important to concentrate on analyzing certain issues related to these factors so as to arrive at meaningful understanding of credit risk management in any organization.

The present study has been thoughtfully directed to include focus on ascertaining respondent responses on the loan policy. Table.6 describes that almost 100 per cent of respondents opined that sample organization followed meticulously their procedure for a well-defined loan policy document. It is observed from the data that none of the respondents was unaware of the initiative by SBI in this regard. Hence, it can be interpreted that the degree of transparency at all levels of hierarchy is positively ensured in the organization. Awareness and involvement of employees at all levels is a highlighting feature in the sample organization.

Banks must receive sufficient information to enable a comprehensive assessment of the true risk profile of the borrower. This should include:

- The purpose of the credit
- The sources of the repayment
- The nature and aggregate amount of risk of the borrower.
- The nature of collateral and its sensitivity to market developments and enforceability.
- The borrowers past repayment history, existing liabilities or obligations, current capacity to repay and future cash flow projections.
- For business loans, the borrower's business expertise, the status of the industry or sector and the borrower's position within that sector.
- Fair assessment based market reports of the integrity of the owners/management of the enterprise, or of the borrower in case of individual loans. Hence, the risk profile of credit portfolio monitored regularly.

TABLE.6 ROLE OF CREDIT RISK MANAGEMENT IN STATE BANK OF INDIA (N = 40)

SI.No.	Statements	Percentage of Response	
1.	Respondents opinion on loan policy document approved by the Board	**YES**	**NO**
		100	-
2.	Respondents opinion on Risk Profile of Credit Portfolio monitored regularly	100	-

Against this conceptual understanding the respondents from the sample organization opined on the monitoring of credit portfolio of risk profile as that almost 100 per cent of respondents were with positive response that is in SBI there is regular monitoring of credit portfolio of risk profile. Therefore, none of respondents was unaware of the initiative by SBI in this regard. Awareness of managers at all levels of monitoring is a highlighting feature in State Bank of India.

RISK CONTROL STRATEGIES

Each corporation operates in an external environment where actions or influences beyond its control may impact the success of the organization. This environment may vary substantially from market-to-market, country-to-country, as well as by product or service offered to customers. An operative approach towards the identification of risk requires accurate and timely information from a variety of disparate sources. This generally involves substantial investment in research targeted at external constituencies such as markets, customers, vendors, competitors, regulators, analysts, investors, technology, economies and political systems. The analysis performed must evaluate external factors in the context of the corporation's current and future strategic plan, to ensure that business goals are appropriate and achievable. It must also focus upon the functional aspects of the business that is products, services, manufacturing, distribution, transportation, innovation, process management, organization structure and other issues critical to the operations of the corporation. Finally, external factor impact upon the financial structure and performance of the corporation must be evaluated.[5]

PERCEPTION ON RISK CONTROL STRATEGIES

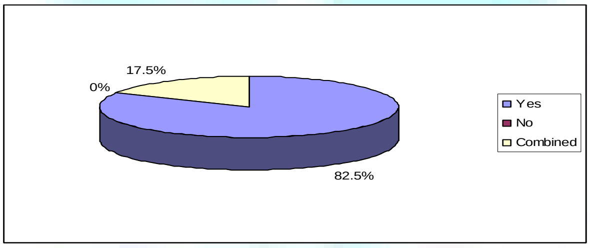
Risk control strategies have been laid down by the Reserve Bank of India for the guidance of the banks, Indian banks have not generally enunciated specific internal guidelines. Even in the absence of such comprehensive guidelines, risk limits have been prescribed for specific activities by the bank management.

In the management of risk there has to be a clearly defined set of processes such as risk taking and risk control that is risk managers and risk takers report to different controllers thus ensuring independence and segregation of risk management functions. The controllers in turn report to the top management level where congruence is established. Either the top level risk management committee based on the risk policy approves the risk limits keeping in view the banks risk taking capacity and the risk appetite. Thus, risk taking and risk control go hand in hand.

TABLE.7 MANAGER SEGREGATES THE RISK TAKING AND RISK CONTROL

Response	No. of Respondents	Percentage
Yes	33	82.50
No	0	0
Combined	7	17.50
Total	**40**	**100.00**

FIGURE: 6



From the Table.7 to elicit the respondents opinion the present study has been thoughtfully directed to include focus on the segregation of risk taking and risk control. Therefore, there is highest number of respondents (33) with percentage effectiveness of 82.5 was observed with positive response, whereas 7 respondents with percentage of 17.5 was responded negatively. Therefore, the response is described as the SBI positioned both risk taking and risk control separately to make the assessment easily.

Risk control guidelines should concentrate on specific strategies and procedures. They should consider what the Bank's specific underlying exposures are and ensure that these are monitored during the entire lifetime of the exposure. Therefore, the approvals were made in accordance with the Bank's written guidelines.

TABLE.8 RISK CONTROL STRATEGIES IN STATE BANK OF INDIA (N = 40)

SI.No.	Statements	Percentage of Response	
1.	Clear Written down Risk Control guidelines followed by SBI	**YES**	**NO**
		100	-

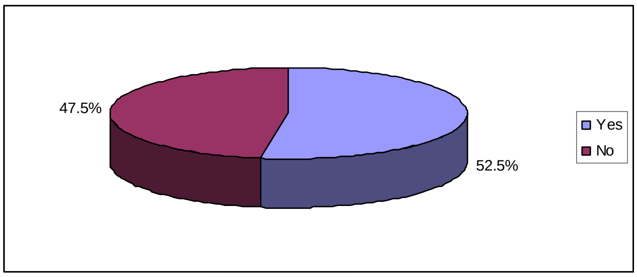
Against this the present study has been thoughtfully directed to focus on written down risk control guidelines. Table.8 explain that almost 100 per cent of respondents opined that sample organization followed the risk control guidelines. It is examined from the data that none of the respondents was unaware of the risk control guidelines in SBI. Hence, it can be interpreted that the degree of clear written down guidelines at all levels of risk is positively ensured in the organization.

Risk weighting based on risk weighting of country in which bank is incorporated and it is based on assessment of individual bank with claims of original maturity <6 months. Claims on banks of a short original maturity would receive weighting that is one category more favourable than the usual risk weight on the bank's claim.

TABLE.9 RISK WEIGHTS ARE SAME FOR ALL THE YEARS

Response	No. of Respondents	Percentage
Yes	21	52.50
No	19	47.50
Total	**40**	**100.00**

FIGURE: 7



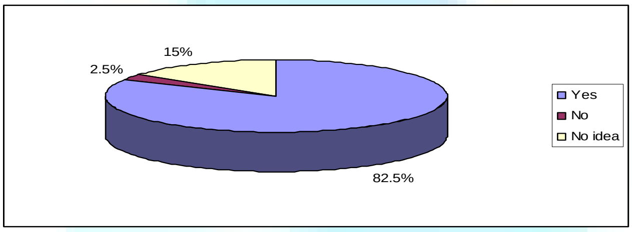
From this conceptual understanding the respondents from the sample organization for the study were contacted to give their perception on the risk weights are similar for the years. Therefore, there is higher number of respondents (21) with percentage effectiveness of 52.5 was observed with positive response and slightly lower number of respondents (19) with percentage of minute change 47.5 was observed with negative response. Thus, the response is explained as the risk weights may be same to some extent for all the years, this has given an opportunity to SBI to measure the amount of risk basing on the weights assigned.

Risk weighting of banks should be de-linked from that of the sovereign I which they are incorporated as this system penalizes banks with better quality asset portfolio incorporated in low rated countries, while benefiting weaker financial institutions in highly rated countries. Instead, preferential risk weights in the range of 20 per cent to 50 per cent on a grade scale could be assigned on the basis of risk assessment by domestic rating agencies.

TABLE.10 RESPONDENTS OPINION ABOUT ALL THE BANKS FOLLOWS SAME RISK WEIGHTS

Response	No. of Respondents	Percentage
Yes	33	82.50
No	1	2.50
No idea	6	15.00
Total	**40**	**100.00**

FIGURE: 8



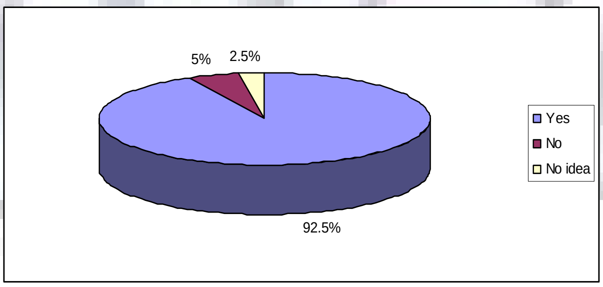
Against this conceptual understanding, respondents have opined that there is highest number of respondents (33) with percentage effectiveness of 82.5 was examined with positive response, whereas 6 respondents with 15 per cent was observed that they do not have any idea and only one respondent with 2.5 per cent was opined with negative response. Hence, the response is interpreted as all the banks follow same risk weights, which made SBI to assess the risk quickly for all the branches.

The mid office is particularly critical because it would perform the risk management functions which may include setting of risk modeling and monitoring parameters, real time monitoring of risk parameters, reporting of exceptions, monitoring realized and un-realized profits and losses, cash flows and accruals, and scrutinizing cost of carry to minimize the risk.

TABLE.11 THE CONCEPT OF MID OFFICE FOR RISK MANAGEMENT HAS BEEN INTRODUCED

Response	No. of Respondents	Percentage
Yes	37	92.50
No	2	5.00
No idea	1	2.50
Total	**40**	**100.00**

FIGURE.9



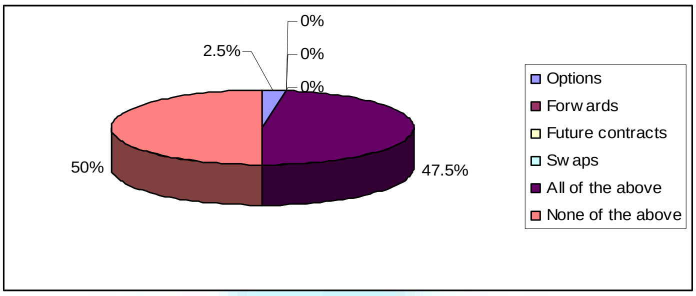
Against this it is understood as per the perception of respondents that there is highest number of respondents (37) with percentage effectiveness of 92.5 was observed with positive response, whereas 2 respondents with 5 per cent responded negatively and only one respondent with 2.5 per cent do not have any idea about the concept. Therefore, the response is analyzed as the implementation of the mid office is for risk management in SBI to monitor and control all the activities of risk.

Financial derivatives are important risk management tools with tangible benefits from their use. However, like all tools it is important that the user understands the tools and uses it to meet specific risk management objectives based on an analysis and understanding of the risks. While the risks are more complex they are in no way different from those associated traditional instruments such as credit risks, market risks and operating risks etc. Financial derivatives serve the useful purpose of managing risks selectively and even in unbundling risks from traditional instruments and activities. They only need to be understood as their composition, strengths and limitations are well known. Thus, the large banks and corporations are major players in the derivatives market, it is the smaller banks and firms with greater vulnerability to risks who need to protect themselves using derivative products because of their smaller capital base.

TABLE.12 THE KIND OF DERIVATIVES ARE USED TO MANAGE THE CREDIT RISK

Kinds of Derivatives	No. of Respondents	Percentage
Options	1	2.50
Forwards	0	0
Future contracts	0	0
Swaps	0	0
All of the above	19	47.50
None of the above	20	50.00
Total	**40**	**100.00**

FIGURE.10



From this conceptual understanding the respondents from the sample organization for the study were contacted to give their perception on the kind of derivatives were used to manage the credit risk in SBI. As per the opinion of respondents it is understood that there are highest number of respondents (20) with percentage of 50 was observed without following derivatives in their risk assessment, whereas there is a slightly lower number of respondents (19) with percentage of 47.5 are able to follow all kinds of derivatives in their risk assessment and only one respondent with 2.5 per cent is aware of using option kind of derivative in their risk assessment. Thus, the response is analyzed as that not following at maximum level the various kinds of derivatives and at minimum level could be following derivatives approach in SBI to measure and monitor various kinds of risks.

Ultimately, it is concluded that the performance of State Bank of India at the level of zonal office, head office and branch level is very satisfactory in managing, monitoring, controlling and assessing the risk.

SUGGESTIONS

Credit is the real activity that should be managed to generate profitability by keeping the three cardinal principles of banking in mind “Liquidity, Solvency and Profitability”. With the thinning of spreads in the deregulated and liberalized economy, risk management has become all the more crucial. So proper mechanism should be put in place for anticipation and identification of risks, together with a suitable mechanism to deal with such risks in an efficient and pro-active manner.

To be successful, Credit Risk Management demands that every credit manager should get agitated with questions like – “Have all the risks identified?” “Have the odds changed?” “Have some risks vanished and new ones taken their place?” etc., that may pave way for a proactive shuffling of the credit portfolio. This becomes feasible if only every one becomes ‘risk-conscious’. It is obvious that ‘risk-consciousness’ enable the organizations to raise right questions at right time resulting in right actions.

Majority of the respondents strongly felt that the system followed in the banks need a review in term of simplifying various forms used and procedures followed for sanctioning loan. Some of the respondents advice their banks to adopt the new models in their credit flow based on parameters.

Credit defaults can be avoided and can be covered by developing the credit derivatives market and trading of these instruments can be permitted subject to certain rules and regulations.

It is suggested that in credit granting application, appraisal, sanction, disbursement, control activities are strictly observed. Diversion of funds to be checked and need based assessment to be arrived to eliminate element of risk in the bank.

The applications of borrowers which are sent by branches to head offices credit cell department such as RACPC and SMECCC should be observed keenly without arising any risk.

Bank must operate within sound well-defined credit granting criteria. These criteria should indicate the bank target market and a thorough understanding of the borrower as well as the purpose and structure of credit and its source of repayment.

It is suggested that the bank should establish overall credit limits at the level of individual borrowers/counterparties, and groups of connected borrowers/counterparties in one industry.

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THE ARCHAEOLOGY OF RECESSION: DILEMMA BETWEEN CIVILIZATION AND CULTURE – TWO DIFFERENT APPROACHES OF WEST AND EAST WHILE COMBATING GREAT DEPRESSION

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ABSTRACT

The present paper thus high lights eastern and western approaches. The one based on moral values and the other based on material culture. The moral values of Gandhi can help to overcome the problems created by recession. The Archaelogy of recession finally proves that India and the Asian Countries have to play a key role in future reconstruction of new economic order.

KEYWORDS

Recession, Civilization, Culture, Eastern & Western Approaches

INTRODUCTION

Political economy in the world today is on the cross roads of change. We require a totally new approach to make human life more safe, secure and sound in the new millennium. This can be in tune with millennium development goals. Gandhi had given a message that "God has given enough to satisfy the need not the greed." The recession cannot be treated as merely economic phenomenon, but it is a socio cultural phenomenon deeply rooted in the archeology and anthropology of human societies in east and west. A complete new approach to examine and evaluate the classification of recession has been presented here. The present paper is a three dimensional approach connecting social archeology, culture and political economy.

The Great Depression was a severe worldwide economic depression in the decade preceding World War II. The timing of the Great Depression varied across nations, but in most countries it started in about 1929 and lasted until the late 1930s or early 1940s. It was the longest, most widespread, and deepest depression of the 20th century, and is used in the 21st century as an example of how far the world's economy can decline. The depression originated in the United States, starting with the stock market crash of October 29, 1929 (known as Black Tuesday), but quickly spread to almost every country in the world.

The Great Depression had devastating effects in virtually every country, rich and poor. Depression or recession thus affects every aspect of human life and every area of economy in the world. This cycle has continued from 1929 to 2009. It is observed that, there is no commonly accepted definition of a global recession, IMF regards periods when global growth is less than 3% to be global recessions.[1] Economists at the International Monetary Fund (IMF) state that a global recession would take a slowdown in global growth to three percent or less. By this measure, four periods since 1985 qualify: 1990–1993, 1998, 2001–2002 and 2008–2009. It would be interesting to observe that how capitalism has turned into corporatism.

Adam Smith has authored the treatise titled as "An Enquiry into the Nature and Causes of the Wealth of Nations" (ED) in the year 1776 which lead to the rise of capitalism in the world. Since then political economies have undergone many changes. Adam Smith attributed increase in the productivity to

(1) to the increase in the dexterity of every worker

(2) to the saving in time to produce goods, and

(3) to the invention of large number of labor saving machines. The capitalism today has been transformed into corporatism. The recession 2008-09 had a long history; right from birth of capitalism, to its present day global character. Recession has been repeated for the second time hitting all the corners of the world, making little difference in its effects.

The root cause of recession first and second in the last century and present century depends on overuse of resources, increasing greed, lust of material benefits and over exploitation of natural resources. The global economic crisis has surpassed assumptions and forecasts and now the world today is rethinking regarding reorganization of financial institutions. In order to retune financial systems, vital changes are required. Both recessions – of the 30s and new millennium have lead to unemployment, falling business, falling loan prices and declining savings.

A careful analysis of social archeology of recession pin points that the nexus of difference in the west and east depends on the dilemma of culture and civilization. In the liberalized world capitalist countries like US in the name of materialist civilization went on relaxing credit policies which lead to chops. According to NBER i.e. National Bureau of Economic Research in USA from 2007 December, US economy was under the tempest of recession. The worsening performance was witnessed in September, 2008. Dennis Blair, Director of US National Intelligence was forecasting the dangers of economic crisis from 1982. Paul Keugman also suggested that US should follow certain regulations in order to limit credit policies. In western capitalist countries the economic recession has hit all countries around the western world, but the globe in the east had not much witnessed severe effects because the eastern countries follow cultural norms and ethical controls. In the western world wide spread business contractions, increase in unemployment, shrinking Government revenues has been the character of the collapsing order. On the contrary in eastern countries every care is taken while issuing loans to individual companies and corporate. The rigid credit policies are an important character of bank culture in the east. The west believes in liberal social control and east believes in self restrain and regulated economic system. One leads to bankruptcy and the other one controls the financial institutes. The recession in the west both in US and Europe has exposed and brought to light the weaknesses in the economic system, while the eastern countries like India have not only provided stimulus packages but also provided moral and ethical dimensions to combat recession.

In America there is less intervention in the economic civilization. In India there is more control on economic culture. One is extravagant and the other is well regulated. India is using goods and services produced in its country, while western countries are more extravagantly using resources produced by world.

Eastern countries in general and India in particular has developed its economy on Gandhian thoughts. According to Gandhi one has to minimize needs in order to face recourse crunch. World has to meet basic needs by overcoming greed. Gandhi's trusteeship concept is based on mutual understanding confidence and cooperation. Gandhi's alternative economic system is helpful for underdeveloped and developing countries in Asia, Africa and Latin America. Further his philosophy can also transform capitalism and communism in to Sarvodaya[3] which can be all inclusive philosophy of development.

The new deal thus differs in US and India, west and east, because economic civilization in America is extravagant and development culture of India is self regulated. Except the collapse of the Satyam in India the tempest of recession has not created much havoc in comparison to America. Now industry, agriculture, and human resource development requires separate strategies for reducing the crises. The current economic crises can be lessened if ethical regulations are properly propagated in order to avoid irreversible effects in both the worlds. A new ethos and action program must be evolved to make the world safe from fear and safe from uncertainty. In the new world Adam Smith, Karl Marx and Mahatma Gandhi are melting in one cauldron and the way out can be based on Indian philosophy "*satya vada dharma chara*"[4] i.e. speaking truth and following righteous path. The Geeta focuses on karma, sacred deeds and not on the lust of fruits. The eastern approach to combat recession is thus based on ethics evolved from Bhartra Hari to Mahatma Gandhi. Mahadev shastri in this light has observed that, one specialty of Indian religious scriptures is that Righteousness and ethics are considered as two different entities. Their relationship is common as well as special, e.g. "सत्यं वद" meaning speak the truth is a general code of ethics. Since merely that is insufficient further "धर्मं चर" meaning observe Righteousness is preached. This implies that not only should one speak the truth but should also behave righteously. The code of ethics is an important part of real Righteousness and controlling the tendencies for wealth and other desires is its true form.[5]

Not the manual of Adam smith wealth of nations, not the gospel in communist manifesto but Gandhi's century old *Hind Swaraj* alone can sustain as antiquity in the archeology of recession.

This can be very much useful for understanding far reaching global consequences of recession on human life disturbing social milieu and cultural ethos. By analyzing these processes on socio economic and philosophical level, we can provide a new dimension to the understanding of recession. The longer and deeper effects of current recession can be compared with Great Depression of 1929-30 and the difference in the approach of East and West can be well observed.

THE NEW APPROACH

Looking at global scenario there is need to high light eastern approach in a new perspective. The global phenomenon of recession is not only economic but it is also philosophical and sociological. A proper correlation of economic behavior into philosophy would be quite interesting to examine the two different approaches of East and West. In this paper eastern promises and western approaches will be examined and new perspective can be presented in a systematic manner.

This Archaeology of Recession can be described as a understanding of philosophy and action to combat recession in political economy. Human society is so busy in high lighting errors that it does not realize that it is repeating[6]. It is true that we are witnessing down leg of the error cycle. The error and the risk associated with the instruments and creations of the past are today's breaking news.[7] The studies in behavioral finance show that the globe is again after 1929 in 2009. Hence understanding two different approaches of east and west is highly needed to face recession. The study of social archeology will mainly focus on that in the next 25 years there will be paradigm shift which can signalize future dimension.

There is a basic difference in the Eastern and Western approach. Dennis Blair and pointed that Time is probably the greatest threat. The longer it takes for the recovery to begin, the greater is the likelihood of serious damage to us strategic inputs.[8]

The view reveals that more stress is given on protecting of interests. The Eastern approach is mores broader and more all comprehensive. It has been pointed that the liberal institutional approach encompasses culture, institutions and power[9].

THE ANATOMY OF RECESSION

The recession is treated as a part of economic cycle. The root cause of recession first and second in the last century and present century depends on overuse of resources, increasing greed, lust of material benefits and over exploitation of natural resources. The global economic crisis has surpassed assumptions and forecasts and now the world today is rethinking regarding reorganization of financial institutions. In order to retune financial systems, vital changes are required. Both recessions of 30s and new millennium have lead to unemployment falling business, falling loan prices and declaiming savings.

It has been rightly observed that delivering is a process by which households ,business, and Government are no longer sustain usually high level of spending given their income levels is accompanied by sharp decline in consumer business, state and local Government spending.[10] The world today is witnessing this change in every field. It seems this also affects on social and cultural life of the contemporary period. The depth and length of the recession can be observed in every walk of human life.

There is resemblance and difference in two global depressions. Barack Obama took office amid circumstances similar to those of F. D. Roosevelt. Roosevelt used depression as an opportunity to revolutionize American life for generations to come realizing the irony that a depression made achieving those objectives possible.[11] Economic downturn needs massive program like New Deal to reform agriculture, recover industries and to give relief from unemployment. Education, health care, women welfare programs in new world are necessary for improving social life in developing countries. Protection is required more for third world countries than the developed world. Financial regulatory reforms in India can be treated as model in this regard.

CRITICAL ANALYSIS OF SOCIAL ARCHEOLOGY

The issues and policies related to economic stimulus are analyzed in economic perspective but they require focusing social perspective.

It was suggested to have a new deal under Obama administration.[12] It was expecting a relief to hard proved working population.[13]

A careful analysis of social archeology of recession pin points that the nexus of difference in the west and east depends on the dilemma of culture and civilization. In the liberalized world capitalist countries like US in the name of materialist civilization went on relaxing credit policies which lead to chops. According to NBER i.e. National Bureau of Economic Research in USA, from 2007 December, US economy was under the tempest of recession. The worsening performance was witnessed in September, 2008. Dennis Blair, Director of US National Intelligence was forecasting the dangers of economic crisis from 1982. Paul Krugman also suggested that US should follow certain regulations in order to limit credit policies. Analysing Keynesian theory Krugman has observed that, Keynes called for active government intervention — printing more money and, if necessary, spending heavily on public works — to fight unemployment during slumps[14]. Krugman has appreciated Indian efforts to face recession by providing social packages helping women, weaker section and nomadic tribes. Construction work on large scale has been also appreciated by the scholar. In western capitalist countries the economic recession has hit all countries around the western world, but the globe in the east had not much witnessed severe effects because the eastern countries follow cultural norms and ethical controls. In the western world wide spread business contractions increase in unemployment, shrinking Government revenues has been the character of the collapsing order. On the contrary in eastern countries every care is taken while issuing loans to individual companies and corporate. The rigid credit policies is an important character of bank culture in the east. The west believes in liberal social control and east believes in self restrain and regulated economic system.

One leads to bankruptcy and the other one control the financial institutes. The recession in the west both in US and Europe has exposed and brought to light the weaknesses in the economic system, while the eastern countries like India have not only provided stimulus packages but also provided moral and ethical dimensions to combat recession.

In America there is less intervention in the economic civilization. In India there is more control on economic culture. One is extravagant and the other is well regulated. India is using goods and services produced in its country, while western countries are more extravagantly using resources produced by world.

It was expecting a potential answer to the complex problems. But this answer was provided by "Manmohonmics" in India.

CIVILISATION AND CULTURE – TWO APPROACHES OF WEST AND EAST

West believes in material civilization, consumption based apparent prosperity ad east believes in value oriented moral culture. One can be destroyed in the tempest of recession but the other ca sustain due to its own sound infrastructure based on moral values. There is a basic difference in the approach of East and West. Eastern countries in general and India in particular has developed its economy on Gandhain thoughts. According to Gandhi one has to minimize needs in order to face resource crunch. World has to meet basic needs by overcoming greed. Gandhi's trusteeship concept is based on mutual understanding, confidence and cooperation. Gandhi's alternative economic system is helpful for underdeveloped and developing countries in Asia, Africa and Latin America. Further his philosophy can also transform capitalism and communism in to *Sarvodaya* which can be all inclusive philosophy of development. M.K.Gandhi has rightly observed in Hind Swaraj that formerly, men were made slaves under physical compulsion. Now they are enslaved by temptation of money and of the luxuries that money can buy.[15] Civilization seeks to increase bodily comforts, and it fails miserably even in doing so. The ethical and moral base of Indian economy must be explained. Gandhi had pointed that the weak and strong must have the same opportunity. The equality of opportunity must be properly followed, i.e. the work must be strengthened to face the economic difficulty.

New Deal is an ideal state of condition. The New Deal thus differs in US and India, west and east, because economic civilization in America is extravagant and development culture of India is self regulated. Except the collapse of the Satyam in India the tempest of recession has not created much havoc in comparison to America. Now industry, agriculture, and human resource development requires separate strategies for reducing the crises. The current economic crises can be lessened if ethical regulations are properly propagated in order to avoid irreversible effects in both the worlds. A new ethos and action program must be evolved to make the world safe from fear and safe from uncertainty. In the new world Adam Smith, Karl Marx and Mahatma Gandhi are melting in one cauldron and the way out can be based on Indian philosophy "*satya vada dharma chara*" i.e. speaking truth and following righteous path. The Geeta focuses on karma, sacred deeds and not on the lust of fruits.

Gandhi has further observed that, Western civilization takes note neither of morality nor of religion.[16] This must be carefully noted here. The socio cultural effects of recession can be reduced by conducting correct operations and right remedies. In India, women, weaker sections and Nomadic people have been provided special packages. The eastern approach to combat recession is thus based on ethics evolved from Bhartra Hari to Mahatma Gandhi. Not the manual of Adam Smith, wealth of nations, not the gospel in communist manifesto but Gandhi's century old *Hind Swaraj* alone can sustain as antiquity in the archeology of recession. In *Hind Swaraj* Gandhi had further observed that, the people of Europe learn their lessons from the writings of the men of Greece or Rome, which exist no longer in their, former glory. In trying to learn from them, the Europeans imagine that they will avoid the mistakes of Greece and Rome. Such is their pitiable condition. In the midst of all this India, remains immovable and that is her glory.[17] Gandhi had forecasted that what East India Company began was a kind of exploitation and he had further cautioned that, they wish to convert the whole world into a vast market for their goods. They will leave no stone unturned to reach the goal.[18] After globalization developing countries have suffered a great deal but in the tide of recession western countries have suffered more because of unprotected economy. Jagdish Bhagwati has observed that, Why has protectionism been contained? The answer lies in the interdependence in the world economy.[19]

The social measures must be properly adopted and totally new approach is required to face global recession.

REMEDIES

i. Both India and America must develop a new deal to face recession for restructuring agriculture and human resource development. India has to play a key role in creating new knowledge based development model.

ii. Both in the developed countries and the developing countries stern steps are required for regulating finance market and for bringing discipline in the investment. Small investors in developing countries like women and farmers must be protected.

iii. While reshaping the global economy social safety net must be developed. The real sufferers in the depression are the industrial works, farm labours and poor women. Those who have been retrenched must be properly replaced in a pririoty basis.

iv. There is a need to reset national priorities in the developing countries. Agriculture must be developed as a backbone of afro asian economies. If the agriculture can sustain in recession then there cane be a positive change both in Industry and education too.

v. In order to bring equilibrium in income and expenditure investment and capital for development proper control systems are required in every type of economy.

vi. Small scale industries suffer a great deal in recession hence based on Gandhian philosophy self sufficient village economies can be developed where local artisans will have substantial jobs.

vii. Social protection is highly required in the fields such as agriculture, small scale industries and education sector. Indian experiments can set a model for other developing countries in this regard.

CONCLUSION

The present paper thus high lights eastern and western approaches. The one based on moral values and the other based on material culture. The moral values of Gandhi can help to overcome the problems created by recession. While appreciating Schumpeter Krugman has observed, even in the face of total collapse some economists insisted that whatever happens in a market economy must be right: "Depressions are not simply evils," declared Joseph Schumpeter in 1934! They are, he added, "forms of something which has to be done.[20] Recession is not a difficulty but is a boon for India. Recent study conducted by the IIT ians reveal that, areas like entrepreneurship, scientific and technological achievement, social transformation, research, educational and business leadership need to be strengthened.[21] However, there are challenges like economic irregularities, bureaucratic red tapism and insecure investors. C.P.Chandrashekhar and Jayati Ghosh have pointed out that, an Asia that was experiencing robust growth till recently has been affected quite adversely by the global financial and economic crisis.[22] In order to re-establish Asia's confidence in economic development philosophy of Gandhi and Indian model of economic development can provide a new light to the whole world and India can be light, liberator and protector of the global economy to march through the difficulties of recession in a safe and secure way. What is required in the new world is Trust, confidence and mutual understanding about the economic market. Depression in 1929 was faced by F.D.Roosevelt by providing New deal which was a comprehensive programme to dig out problems created by depression. Now Barack Obama is also providing a new answer but developing world has a more effective answer given by Dr.Manmohan Singh based on Gandhian approach. The Archaelogy of recession finally proves that India and the Asian Countries have to play a key role in future reconstruction of new economic order.

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TRANSFORMING A RETAIL CENTRE INTO A BRAND THROUGH PROFESSIONAL MALL MANAGEMENT

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ABSTRACT

With the changing lifestyles, incomes and Shopping Habits, there is a lot of scope for organized retailing which is growing day by day. Shopping Malls are really helping these Retail giants by providing them the infrastructure required by them to grow fast. The present study is based on the Multiple Drivers of Growth & the issues being faced today by these shopping Malls when more are coming up but they are not able to find the right rentals nor the footfalls required. Therefore, before planning for a mall, Developers should Position their property according to Customer Profile. It is suggested that they should not act as realtor, because poor mall management and poor tenant mix have resulted in low mall traffic and low conversion rate (8-10 percent only). They must know their customers in the area well and try to have a tenant mix as per the target customers. Create USP for their Malls and have the right rentals for their shopkeepers because high rentals will lead to less profit for their shop owners. The Mall developer should create an ambience and maintain a hygienic and a clean environment for family members to shop and come again and again making their shop owners more profitable in future.

KEYWORDS
Shopping malls, brand, transformation, shopping habits, image.

INTRODUCTION

The numbers of malls in India is expected to increase at a CAGR of more than 18.9 per cent from 2007 to 2015 [7]. Today the total cumulative stock of mall space in Delhi NCR is estimated to be 17.87 mn. sq.ft and is expected to witness a fresh supply of about 16.14 mn.sq.ft by the end of 2012 [14].This means that we have a shopping mall in most of the locality. We are seeing many malls at in a vicinity of few kilometers in M.G Road, Gurgaon, Saket, Vasant Kunj, Rajouri Garden etc. But even due to the oversupply, desirable retail estate is a challenge for retailers. Mall rental rates are lower today because of an oversupply of space, but still there is lack of quality street locations. [1]

But the mall developers must understand the dynamics of the business. They must understand the area first before selecting a location to build a shopping mall. They must understand the competition market size, operating malls at present, upcoming malls in the area, their formats, customers visiting these malls and gaps if any to position their mall in that category and differentiate it among the herd. Create a tenant mix which is sought by the customers around the trade area, creating an Anchor/Specialty/Multiplex/Amusement Center which might attract more footfalls. Strategies and implementation have to be different as compared to the operating malls and everything must be researched before and then implemented for better results. Shopping Mall can't be successful through design/infrastructure but the work of the promoter of a shopping mall only starts after the opening of the mall. A proper tenant mix has to be devised as per the expectations of the customers in the trade area. Facilities have to be built and managed comparable to the best in the industry. The promoters have to understand the expectations of a particular consumer segment for which the mall is positioned. These expectations have to be fulfilled by creating interest among consumers through various sales promotion plans/events which has to be organized for attracting more footfalls. All the strategies adopted by other malls situated in and around NCR Delhi must be studied thoroughly and new strategies must be adopted, so that the consumers are attracted towards the mall with an intention of shopping as well as entertainment. If this happens they will come from far distance, come with the whole family, spend more money and time in the food court apart from shopping. This will create more enjoyment for their family and kid and if they enjoy their experience, they will come back again and again.

These conditions certainly are an eye opener to all the promoters and managers of the mall to beat the competition and do much emphasis on better mall & facility management. This research has also been initiated with certain objectives which will be studied through primary and secondary data and come up with findings which may be helpful to the promoters who are operating the mall/ setting up a new mall /are in any aspect related in its management / have plans to venture/run this business today/tomorrow.

The situation certainly created a need for this research where we have intended to give suggestion to all the ten malls chosen for our study to strategize further to remain successful in this competitive situation.

RESEARCH DESIGN

The Research done has been Exploratory in nature and the Questionnaire has been used as the Research Instrument, for collecting primary data.

SAMPLING PLAN

Delhi NCR have around 51 shopping malls in NCR Delhi[14], 27 in Delhi Ghaziabad, eight in Noida - Greater Noida, nine in Ghaziabad, 16 in Gurgaon and Faridabad[14]. But, it was not possible to undertake the survey in all the Malls situated in all the regions, so, a scientific approach was adopted and ten Shopping Malls (new and old both) were selected from the available malls on the basis of size, type of Anchor/specialty store/multiplex, availability of branded showrooms, food-court, location, footfalls etc.

SAMPLING TECHNIQUE

The concept of Convenience, Quota & Judgment sampling was judiciously used to make the study more unbiased and scientific.

SELECTION OF MALLS IN NCR DELHI

Since Delhi and Ghaziabad has the highest numbers of malls (27) in Delhi NCR[14], so to have a full coverage with a mix of different income groups as South is more posh and in North Delhi has high concentration of population mostly constituting of business class. It is also developing very well and catching up with the infrastructure of South Delhi. So, four shopping malls were selected for study in Delhi, two malls from South Delhi and two malls from North Delhi. In the whole study of the region it was thought that in each and every area one new and one old mall will be selected and studied for a better analysis. In South Delhi, Ansal Plaza is one of the oldest malls and also the first to come up in Delhi city & City Walk, Saket one of the new malls which also has started with lot of research and planning. It also organizes events regularly to attract footfalls and hence selected. In Gurgaon and Faridabad there were 16 malls[7] and the criteria for selection of malls was similar to that of the criteria set in Delhi, so we chose two malls from 16, one old mall running very successfully in the region with high footfalls, Sahara Mall (old) & the other Ambience Mall (new) which was positioned as an up-market mall with high visibility and was also running successfully. In NOIDA there were seven malls and we also selected two malls Great India Place (new) & Center stage Mall (old). In Ghaziabad there were nine malls and we considered two malls, Pacific Mall (old) & Shipra Mall (new) for study.

Among the selected ten malls in NCR Delhi, four were in New Delhi city, two in NOIDA, two in Ghaziabad and two in Gurgaon. All these ten malls were running successfully with high footfalls, and constituted a good coverage of the whole NCR Delhi where representation was taken for new as well as old malls located in areas where affluent as well as middle class customers of varied age, education and income groups resided. This also was necessary to understand the ongoing trends/emerging trends and the changed strategy adopted by these new as well as old mall developers to beat the increasing competition because day by day due to the emergence of new shopping malls with same formats (An anchor store of a discount store/specialty/multiplex with branded shops as well as a Food Court) has resulted in the reduction of the available Trade Area of all these malls. Not only this it has also been visualized that the perception of customers change after every two to three years and the mall developers must understand the demography of customers, their intentions and expectations around their trade area. They must also try to give the customer maximum satisfaction by providing a better tenant mix of branded/unbranded/specialist stores/discount stores/ category killers etc as per the changed trends and expectations of consumers.

The areas of Faridabad & Greater Noida were left as the concept of malls in these areas was not as successful as compared to Delhi and other areas of NCR. Another reason for not doing the study in more regions /malls was paucity of time and resource constraints and the selected 10 malls in four regions of NCR Delhi were selected to give enough coverage for a better analysis, so that all the segments were covered.

The executives, floor managers and promoters of all the ten selected areas in NCR Delhi were also contacted and interviewed to know more about the expectations o0f customers from these malls and the strategies being followed/ planned by the managers and the promoters of the malls to enhance the footfalls and also the steps being taken for adopting better mall management techniques to enhance the service.

SAMPLE SIZE

Looking at the resources and time constraint a sample size of 750 was visualized (which included both males & females of all age groups above 18 years). This sample size was further divided equally among the ten selected malls in which the study was being done in the NCR Delhi region. For each mall the sample size became 75. Again it was further visualized that according to convenience different set of customers visit malls on weekdays (morning and evening) and holidays. So, it was further visualized to have a different approach by dividing the sample size of 75 in each mall again in three categories where questionnaires by 25 respondents will be filled in each mall on three different days and three timings. This was done to give equal importance and weight age to different categories of customers of varied age groups/ income coming for shopping/ recreation on different days and times. Data were collected from consumers through mall intercept surveys based on Convenience and Judgmental basis of the researcher, so that all genders, class, educational background and social status mix is created in the sample with right responses. The questionnaire have therefore been filled by the consumer on three different days, 25 interviews taken on Sunday (Holiday) in the evening between 5.00 P.M to 7.00 P.M., the other on a working day (Monday to Saturday) in two different timings, one in the daytime (between 11.00 P.M to 2.00 P.M) and the other in the evening (between 5.00 to 7.00 P.M). This was done to avoid similar kind of respondents, as the profile of people are different on holidays and in the morning and evening timings of a working day. Similar approach has been taken for all the malls for better results. Utmost care was taken for intercepting customers to fill questionnaires only when they were coming out of the mall. This was specifically planned to complete the study with a scientific approach. With this every mall in NCR Delhi was given equal weight age and represented an equal population.

SELECTED MALLS IN NCR DELHI

TABLE 1: SELECTED MALLS IN NCR DELHI

S.No	City	Name of the Shopping Mall	Built up Area (sq.ft) (total area may be different)
1	New Delhi	Ansal Plaza, South Delhi	170,000
2	New Delhi	City Walk, South Delhi	1,300,000
3	New Delhi	TDI Mall, West Delhi	120,000
4	New Delhi	City Square Mall, West Delhi	90,000
5	NOIDA	Great India Place	1,500,000
6	NOIDA	Center Stage Mall	3,50,000
7	Ghaziabad	Pacific Mall	500,000
8	Ghaziabad	Shipra Mall	450,000
9	Gurgaon	Sahara Mall	250,000
10	Gurgaon	Ambience Mall	480,000

IMAGE OF SHOPPING MALLS UNDER STUDY

Now if we do a cross analysis of all the ten malls under study on the two parameters of Shopping Environment **(SE)** and Product-Promotion-Price **(P-P-P)** factor we visualize that among the malls the average mean recorded by these ten malls on Shopping Environment factor was 2.84 whereas on Product- Promotion-Price Factor it was 3.10 in 5 point scale. Among the selected 10 malls Great India Place, NOIDA recorded the highest mean (3.02) and Ambience Mall recorded the lowest mean (2.68). The Standard

TABLE 2: IMAGE OF SHOPPING MALLS UNDER STUDY

SHOPPING MALL		S E	P-P-P
Ansal Plaza	Mean	2.95	3.14
	N	66	66
	Std. Dev	0.70	0.53
City Walk Saket	Mean	2.74	3.12
	N	64	64
	Std. Dev	0.81	0.63
TDI Mall Rajagarden	Mean	2.82	3.10
	N	68	68
	Std. Dev	0.91	0.57
City Square (Life Style) Rajagarden	Mean	2.83	3.12
	N	66	66
	Std. Dev	0.74	0.49
Total (4 Delhi Malls)	**Mean**	**2.83**	**3.12**
	N	**264**	**264**
	Std. Dev	**0.79**	**0.55**
Great India Place	Mean	3.02	3.05
	N	75	75
	Std. Dev	0.84	0.57
Center Stage Mall	Mean	2.80	3.16
	N	68	68
	Std. Dev	0.53	0.56
Total (2 NOIDA Malls)	**Mean**	**2.91**	**3.11**
	N	**143**	**143**
	Std. Dev	**0.71**	**0.56**
Pacific Mall	Mean	2.87	3.06
	N	64	64
	Std. Dev	0.80	0.51
Shipra Mall	Mean	2.85	3.08
	N	68	68
	Std. Dev	0.72	0.52
Total (2 Ghaziabad Malls)	**Mean**	**2.86**	**3.07**
	N	**132**	**132**
	Std. Dev	**0.75**	**0.51**
Sahara Mall	Mean	2.84	3.16
	N	67	68
	Std. Dev	0.58	0.57
Ambience Mall	Mean	2.68	2.99
	N	75	75
	Std. Dev	0.89	0.58
Total (2 Gurgaon Malls)	**Mean**	**2.76**	**3.07**
	N	**142**	**142**
	Std. Dev	**0.76**	**0.58**
Total (10 Malls of NCR Delhi.	Mean	2.84	3.10
	N	681	682
	Std. Dev	0.76	0.55

Deviation recorded is also the lowest (0.70) for Ansal Plaza and highest is for Ambience Mall (0.89) whereas the average Standard Deviation for all the ten consistently & Ambience Mall less consistently in the parameter of Shopping Environment. In the Product- Promotion-Price factor the highest mean recorded was by Sahara Mall, Gurgaon & Center Stage Mall, NOIDA (3.16) and the least by Ambience Mall (2.99) whereas the average recorded was (3.10). The standard deviation recorded was the lowest for Pacific Mall (0.51) and highest for City Walk (0.63) whereas the average was (0.55). The most consistent mall based on this factor was Center Stage Mall which recorded a mean (3.16) with a Standard Deviation (0.56) selected malls is 0.76. This means that the consumers rate Ansal Plaza most & Sahara Mall the next with a mean (3.16) and a Standard Deviation (0.57). The lowest recorded was for Ambience Mall with a mean (2.99) and a Standard Deviation (0.58).

The customer perception for all the selected malls on the basis of shopping environment (SE) the mean is ranging from 2.68 to 3.02 with a standard deviation ranging from 0.53 to 0.89 and in Product-Promotion-Price (P-P-P) factor the mean is ranging from 2.99 to 3.16 and standard deviation ranging from 0.49 to 0.63. This signifies that the Image of the shopping mall which is perceived on the basis of both Shopping Environment and Product-Promotion-Price is most consistent for Ansal Plaza for both the factors where the mean recorded is (2.95) with a Standard Deviation(0.70) and Product-Promotion-Price (P-P-P) mean (3.14) with a Standard Deviation (0.53) whereas for other malls both the factors are varied both in mean and standard deviation.

This signifies that the malls which have been old (Ansal Plaza) are still liked more by consumers in terms of better Shopping Environment and malls like Great India Place & Center Stage Mall in NOIDA are graded better in terms of Product- Promotion-Price-factor as they are coming with lots of promotions to attract the crowd. Even the Great India Place which has been established late are getting better acceptance as it gives a better place and also has a Multiplex and an Amusement park, to provide full entertainment for the whole family. (kids, grown ups and parents)

All the selected ten malls and in the Shopping Environment and Product-Promotion-Price as a factor on which the Image of a shopping mall was recorded were based on the responses of consumers, the average value (mean value) which was lying between the limits of 2.68 and 3.16. So, it is very difficult to say that there is a significant difference among the average value of the different factors of the Shopping Mall Image and different shopping malls. To know whether the differences in mean values are significant the Analysis of Variance (ANOVA) is done. The two different hypotheses were therefore prepared about the different factors of the Mall Image and different shopping malls. The first set of hypothesis was as follows:

THE NULL HYPOTHESIS FOR FACTORS OF MALL IMAGE

H_0 – There is no significant difference in the average value (mean value) of different factors of Shopping Mall Image.

The Alternate Hypothesis for factors of Mall Image:

H_1 – There is at least one factor which is having significant difference in the average value from the other factors of Shopping Mall Image.

The Null Hypothesis for Malls:

H_0 – There is no significant difference in the average value of perception of the customers of different shopping malls.

The Alternate Hypothesis for Malls:

H_1 – There is at least one mall which has a significant different average perception of the customers of the malls.

Table 3: ANALYSIS OF VARIANCE (ANOVA)

Source of Variation	SS	df	MS	F	P-value	F critical
Rows	0.2513	10	0.0251	4.211	0.000137484	1.968
Columns	4.4724	7	0.6389	107.054	8.01057E-35	2.143
Error	0.4177	70	0.0059			
Total	5.1415	87				

The above Table 3 shows that both the null hypothesis are accepted at very good level of significance. There is no significant difference in average values among the mall image factors and the perception of customers in these malls.

SUGGESTIONS FOR SHOPPING MALLS IN NCR DELHI

Apart from the selected malls in NCR Delhi, when we further have a look around the total malls new & old plus the upcoming malls we come to a conclusion that the success of malls can not only be achieved by housing the biggest and the best mix of retailers, but by setting up new standards and procedures in mall management. This will provide them a platform to differentiate its products and services from competitors. The prime objective therefore of these mall developers, must be to attract consumers and persuade them to purchase goods and services from their mall. This will also boost the retailers' turnover and benefit their bottom line.

TRANSFORMING A RETAIL CENTRE INTO A BRAND THROUGH PROFESSIONAL MALL MANAGEMENT

Mall management includes: positioning a mall, zoning – formulating the right tenant mix and its placement in mall promotions and marketing. **Facility management** – infrastructure, traffic and ambience management finance management

SHARING THE BURDEN-COLLABORATIVE MANAGEMENT

- **Redefinition of relationship between malls and retailers**: The traditional relationship of the tenant and landlord which is existing till date must change. Both need to consider each other as partners or associates, where one party's growth is greatly dependent on the other.
- **Malls and Retailers work together to offer the Customers the complete experience:** This complete experience must include products that can offer value for money on one hand and attractive entertainment on the other hand.
- **Through mutual discussions**; a collaborative strategy has to be adopted: Collaborative area and their core competence must be defined. Each one must try to improve and perfect their specific area of Competence. For e.g. Mall Developer could take up the responsibility of organizing promotions, while the retailer plans the merchandise according to the promotion requirements.

STRATEGIC PLANNING FOR MERCHANDISE

The Mall management must also restructure the way products are sold in these malls. One of the ways could be to create mini malls within malls. For e.g. all stores in related categories could be placed in close proximity, so as to provide a better variety to the customers and at the same time increase impulse within the stores. Thus Apparel stores, Accessories stores and Shoe stores could be placed together and thus create complete segments of related products within the Mall. The malls could then organize specific promotion and events for these sections or categories.

Another way of Collaborated Merchandise Planning should be by keeping the Retailers informed about Mall Events Calendar, so that the retailers can respond to the promotions by bringing about slight modifications in their product mix for that particular period. This way the retailer also benefits with the Mall Developer.

DEVELOPING THE TEAM

To support these futuristic ideas of mall management, a competent team must be developed which must be fully devoted to these aspects, and whose primary focus should be to remain in touch with the customers psyche and constantly innovate various promotion schemes. The team must ideally have two- three representatives who will be reporting to one person. Each of these representatives must hold accounts of the occupant retailers. Their primary responsibility must be to coordinate with these retailers and derive businesses out of them. At the same time it would also be essential for them to be in touch with their requirements. The team would also include traditional roles such as Marketing, Housekeeping etc.

WORKING OUT THE FINANCIALS

Innovative ideas are of no use if they do not make any business sense. So, a feasible financial strategy must be planned for a backup, if the strategy adopted becomes a failure. Though the financial strategies must always be specific to the Mall and Retailers, this strategy in its basic form must incorporate the following:

1. **Sharing of expenses between the Retailer and Mall must be undertaken:** Possibilities include a fixed fee to be paid by all the Retailers to the Mall developer. This fee would be over and above the rentals being paid already. As a justification to the costs the strategic team may be held accountable for either footfalls or certain (minimum) number of events in a year. Since these events would always be held in consultation with the Retailer, retailer would stand to benefit directly from these events.

2. Another strategy for Financial collaboration could be by way of Revenue sharing. The Mall developer gets cut out of the revenues of the Retailers during a specific promotion.

The essential thing visualized therefore is that both the Mall developers and Retailers must implement this new idea with an open mind and try to perfect the system. The perfection of the system is a matter of evolution and will happen in time.

OPPORTUNITIES IN THE MALL BUSINESS

In the premises of a mall there are many things, like catchy outdoor hoardings, and attendants assisting the parking of vehicles. At the entry points, guards frisk visitors for security assurance, CCTVs are also installed and surveillance cameras ensure a threat-free environment. Escalators and lifts are for comfort and convenience; with the housekeeping team making sure that the ambience is good.

Right from the day a mall is constructed, it provides a lot of opportunities for a lot of businesses. Besides the shops, restaurants, and entertainment hubs, there are lot of other opportunities too. These are mall management, facility management, creative firms, and design houses specializing in mall interiors, promotional events, kiosks, and hoardings to advertise products or services, to name a few.

STRATEGIES INVOLVED IN MALL MANAGEMENT

The mall and the retailer should work out a strategy where the mall focuses and enhances the overall experience and the retailer focuses on the delivering a good variety of products, With the retail business growing at a rapid speed all around Delhi NCR, managing malls is a huge challenge. The need for proper retail asset management is therefore very critical. So, the strategies involved in improving Mall Management are:

BALANCE MIX AND LAYOUT OF STORES, FOOTFALL, AMPLE SPACES, PARKING, TEMPERATURECONTROL & PROMOTIONS

STRATEGIES TO BE ADOPTED FOR THE SUCCESS OF THE MALL

The Mall management should therefore adopt the following strategies for the success of the mall:

- Select the right mix of shops based on the location of the mall, target clientele and the trend visualized as per trade area.
- Leave ample spaces all across the mall, seating areas and other decent and good comfort facilities for less crowding.
- Providing easy and hassle free parking for the visitors and don't allow to occupy that by the employees of the store.
- Do everything that increases the footfall into the mall.
- Promotions, shows, art exhibitions, decorations, fun activities for children, competitions for children in various fields like painting, dancing, singing, debating etc must be organized regularly and some hungama created at regular occasions.
- Conduct activities related to the local festivals.
- Take responsibility to generate productive footfall by signing up further for revenue share and lowered rentals.
- Try and have one anchor store which is the choice of local majority crowd in the trade area.

If space permits, provide everything that a family outing needs to do - such as, Movie, food court, grocery, shopping, other entertainment like fun and amusement events etc so that the family extend the stay at the mall.

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IMPACT OF EXCHANGE RATE VOLATILITY ON REVENUES: A CASE STUDY OF SELECTED IT COMPANIES FROM 2005 - 2009

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ABSTRACT

Foreign exchange rate is a key factor in foreign trade. Recent developments in the global economy: recession and looming threat of deflation in the US and Europe has contributed to the weakening of the US dollar against most other currencies including the rupee. This has affected India's export sector, especially IT sector (about 67% of their revenues is from North America and about 90% of their exports are invoiced in US dollars). Consequently operating margins of IT Companies have been hit hard with adverse impact on stock prices. The competitive environment is such that the foreign exchange rate volatility needs to be monitored and managed. Volatility can have profound effects on earnings and stock/share prices. However, the extent and nature of this volatility crucially depends upon firm's exposure. The inter-connections between exchange rate, valuation, profitability, stock prices has to be measured and quantified as precisely as possible.This paper attempts to measure the impact of exchange rate volatility on key parameters of five IT majors in India.

KEYWORDS

GARCH, Omega, Vega, Delta, Beta, Persistence, Volatility, Exchange rate, Revenue, Operating profits, INR, USD.

INTRODUCTION

Performance of the Indian Information Technology (IT) industry has been a success story all over the world. The revenue growth of the Industry has been impressive. According to as estimate of National Association of Software and Services Companies' (NASSCOM), growth rate of the industry is at 33% and total revenue (domestic and exports combined) is at USD 64 billion for year ended March 31, 2008 (*The Hindu Business line, Tuesday February 12, 2008*). However, it is projected to decline to USD 60 billion by 2010. (*The Hindu Business line, Saturday April 12, 2008)*

The last five years have witnessed a shift in the power of the various foreign currencies that Indian Rupee trades against. In particular, the US dollar has moved from being the most powerful and important currency to a position of relative non- importance following the crisis of 2008. Yet USD continues to be key element in India's exports. Indian rupee's roaring appreciation against the US dollar, although for a short period has sent a note of warning to the exporters; Software, textile, Leather, Sugar and Pharmaceutical Industries. This is especially because of the major portion of their earnings (Revenue) is from the overseas market. Nearly 67% of the Revenue is from North America and over 90% of their exports are invoiced in dollars.

Firms that have exposure to exchange risk craft well defined strategies for managing foreign exchange volatility risk. The volatility in foreign exchange is a result of multiplicity of factors, and to fully comprehend volatility a thorough review of the foreign exchange market is necessary.

The Foreign Exchange Market Today

The major currencies today move independently from other currencies. The currencies are traded on well developed market just like the commodities and securities. This has caused a recent influx of speculation by banks, hedge funds, brokerage houses and individuals. Central banks intervene on occasion to move or attempt to move currencies to their desired levels. The underlying factor that drives today's Forex markets, however, is supply and demand. The free-floating system is ideal for today's Forex markets. Thus, the volatility of the Indian rupee against the dollar is of great concern for especially the IT sector companies.

This is a case study of selected major IT firms in India from 2005 to 2009. Secondary data available from company reports, journals and websites has been used.

OBJECTIVES

- To estimate daily exchange rate volatility.
- To evaluate the impact of exchange rate volatility on the revenues of the IT sector companies.
- To evaluate the impact of exchange rate volatility on the share price of IT sector companies.

RESEARCH METHODOLOGY

RESEARCH DESIGN

The study is both qualitative and quantitative. The quantitative data will be used to support the qualitative facts obtained. The study concentrate on the major 5 IT sector companies only namely;

- Tata Consultancy Services Ltd
- Infosys Technologies Ltd
- Wipro Technologies Ltd
- HCL Technologies Ltd

DATA SOURCES AND COLLECTION

Secondary data has been used. The sources used include mainly company reports, newspaper articles, journals and magazines, research bulletins, and other accessible publications.

<u>*Data Analysis Techniques*</u>

First, to estimate daily exchange rate volatility a *Generalized Auto Regressive Conditional Heteroscedastic (GARCH) Model* is used. The model specification is:

$\sigma_n^2 = \gamma V_L + \alpha u^2_{n-1} + \beta\sigma^2_{n-1}$

modified as

$\sigma_n^2 = \omega + \alpha u^2_{n-1} + \beta\sigma^2_{n-1}$

Where γ, α, ω and β are constants and

$\omega = \gamma V_L$

Secondly, to measure the impact of exchange rate volatility on the profitability of the IT sector companies, *revenue and operating profits* of five companies is correlated with exchange rate.

The following regression equations are used:

Rev_Company = α + β (Exch_Rate)

EBIT_Company = α + β (Exch_Rate)

Where *α and β* are constants, *Rev_Company and EBIT_Company,* are Revenue and Operating profit of the company respectively, *Exch_Rate* means exchange rate between Rs and USD.

Finally to evaluate the impact of exchange rate volatility on the share price of IT sector companies, daily share prices of the companies is correlated with exchange rate:

The regression equation applied is;

Share P_Company = α + β (Exch_Rate)

Where *Share P_Company* is the share price of the company and α and β are constants.

ESTIMATING EXCHANGE RATE VOLATILITY – THE MODEL

It is well-established that the volatility of asset prices displays considerable persistence. That is, large movements in prices tend to be followed by larger moves, producing positive serial correlation in squared returns. Thus current and past volatility can be used to predict future volatility[18]

The methods of measuring volatility have evolved over time to reflect new advances in econometric techniques. There has not yet emerged a clearly dominant approximation for uncertainty. The volatility variable may be constructed as the standard deviation of a rate of change, or the level, of a variable; a moving standard deviation, or a within-period one (*Mohsen & Hegerty, 2007*)

The most popular model for estimating volatility however is the GARCH (1, 1) Model proposed by *Bollerslev* in 1986. The GARCH model has been used to characterize patterns of volatility in U.S. dollar foreign exchange markets (*Baillie and Bollerslev 1989 and 1991*) and in the European Monetary System (*Neely,1999)*

The variance rate (σ_n^2) is calculated from a long-run average rate, V_L as defined in the equation;

$$\sigma_n^2 = \gamma V_L + \alpha u^2_{n-1} + \beta\sigma^2_{n-1}$$

This equation can also be written as;

$$\sigma_n^2 = \omega + \alpha u^2_{n-1} + \beta\sigma^2_{n-1}$$

Where ω is set equal to γV_L

When α + β < 1, the variance process displays mean reversion to the unconditional expectation of σ_n^2, ω / (1−α − β). That is, forecasts of volatility in the distant future will be equal to the unconditional expectation of σ_n^2, ω/ (1−α − β). *Table 1* explains the parameters used in the GARCH (1, 1) Model

TABLE – 1: PARAMETERS USED IN ESTIMATING VOLATILITY

Symbol	Description0
σ_n	Defined as the Volatility of exchange rate at day "n" estimated at the end of day "n-1"
σ_n^2	Defined as the variance rate
U_n	Defined as the percentage change in the exchange rate between the end of day "n-1"and the end of day "n" between Rs and USD
V_L	Long - run average variance rate
ω, γ, α and β	Constants

Estimating Volatility

$$\sigma_n^2 = 0.0000029366 + 0.008306\, u^2_{n-1} + 0.722034\, \sigma^2_{n-1}$$

from $\gamma + \alpha + \beta = 1$

Then, $\gamma = 0.26966$

Further, $\omega = \gamma V_L$, Therefore, $V_L = 0.0000029366/0.26966$

$= 0.0000108$

Thus, the ***long run average variance*** implied by the model is *000001089.* This corresponds to volatility of *√0.00001089 = 0.0033 = 0.33%* per day. Therefore, the ***Long-term volatility*** equals 0.33% per day.

The ***Long-term volatility of the year*** equals 0.33* *√252=5.23%*

TABLE – 2: PARAMETER VALUES FOR ESTIMATING VOLATILITY BETWEEN 2005 TO 2009

Parameter	2005	2006	2007	2008	2009
Ω	2.94E-06 = 0.0000029366	1.19E-06 = .0000011930	2.4E-06 = .0000024166	1.4E-06 = 0.000001407	1.24E-06 = 0.000001247
A	0.008306	0.835337381	0.058298587	0.09254248	0.016693584
B	0.722034	0.914870715	0.831786413	0.89153412	0.947678416
V_L	5.23%	6.032%	7.3022%	14.92%	9.36%

DISCUSSION

- In 2005, the daily exchange rate volatility ranges between 0.187% and 0.477% for most of the periods with long term volatility averaging 0.33% .Long run yearly variance is 5.23%
- In 2006, daily volatility ranges between 0.234% and 0.5067% with long-term average volatility of 0.38%. Long run yearly variance is 6.023%
- In 2007, daily volatility ranges between 0.289% and 0.626% with long-term average volatility of 0.46%. Long run yearly variance is 7.30%
- In 2008, daily volatility ranges between 0.648% and 1.49% with long-term average volatility of 0.94%. Long run yearly variance is 14.92%. During this period INR had appreciated against USD, so volatility is high in this period.
- In 2009, daily long-term average volatility was 0.59%. Long run yearly variance is 9.36%.

EXCHANGE RATE VOLATILITY AND PROFITABILITY

The relationship between exchange rate volatility and the performance of IT firms as measured by proftability/(earnings) i.e., how the firms earnings/ profits respond to changes in exchange rates between Indian Rupee (INR) and US Dollar (USD) is analysed. The general trend in exchange rate will first be analysed and the impact on firm performance will then be presented.

The analysis will be done on three basic premises:

- Revenue
- Operating profits (Earnings Before Interest and Tax- EBIT)

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REVENUE ANALYSIS

TABLE – 3: RELATIONSHIP BETWEEN EXCHANGE RATE AND REVENUE

	corr	R^2	Adjusted R^2	Regression Constant (a)	Coefficient (b)	t test	Sig
Infosys	-.475	.225	.148	1033610.101	-16923.52	-1.705	.119
TCS	-0.536	0.287	0.216	1348314.622	-23031.85	-2.008	0.072
Wipro	-0.495	0.245	0.169	1146422.936	-18998.787	-1.801	0.102
Satyam	-0.601	0.361	0.297	604900.797	-10503.451	-2.377	0.039
HCL	-0.261	0.068	-0.025	231730.625	-3443.352	-0.853	0.413

The regression equations can be constructed for all the five companies in the form as explained in the methodolgy. These equations work out to be
Infosys:
Rev_Infy = 1033610.101- 16923.52(Exch_Rate)
TCS:
Rev_TCS = 1348314.622 - 23031.85 (Exch_Rate)
Wipro:
Rev_Wip = 1146422.936 -18998.787 (Exch_Rate)
Satyam:
Rev_SAT = 604900.797 - 10503.451 (Exch_Rate)
HCL:
Rev_HCL = 231730.625 - 3443.352 (Exch_Rate)

DISCUSSION*:*

- All the five companies have a weak negative correlation with revenue. Satyam having the highest negative correlation of -0.601 and HCL having the lowest of -0.261.
- The coefficient of determination is also very low for all the companies, showing that the Revenue growth/decline is explained little by exchange rate changes.
- This means that an increase in exchange rate decreases revenue. This also holds for all the firms under study. Therefore, an appreciating currency leads to a fall in foreign-currency-denominated revenue and similarly, a depreciating currency leads to increased revenue (denominated in foreign currency). In this case, dollar denominated revenue decreases with an appreciating rupee year on year basis.

Other Factors Responsible For Revenue Growth

- *Currency Denomination***:** The export revenue denominated in US dollars of all the companies has been decreasing. This implies that the companies are shifting slowly from using dollars to the more stable Euro for denominating their bils. Example HCL's revenue from the USD denominated billing has been declining from 57.11% to 55.00% . in the same period, revenue from Euro denominated billing has increased from 26.01% to 29.70%[19]
- *Hedging***:** The hedge positions of all the companies has been increasing showing their response towards currency risk by hedging. For example, the hedging position of TCS as at March 31, 2007 was $1434 million compared to $566 millions as at March 31, 2006[20] indicating an aggressive hedging strategy.
- *Outsourcing***:** India is a powerhouse catering to almost all the leading global companies of the world. IBM, Cisco, Yahoo! Amazon and Oracle all outsource from India. India gives complete solutions supported by its technological ability, quality, flexibility, and cost effectiveness; time to market and in turn the competitive edge[21]. This helps indian companies in absorbing the shocks of currency fluctuations.

Operating Profits (EBIT) Analysis

TABLE – 4: RELATIONSHIP BETWEEN EXCHANGE RATE AND OPERATING PROFITS

	Corr	R^2	Adjusted R^2	Regression Constant (a)	Coefficient (b)	t test	sig
Infosys	-0.313	0.098	0.008	223602.593	-2990.549	-1.042	0.322
TCS	-0.431	0.186	0.104	340267.028	-5492.455	-1.511	0.162
Wipro	-0.165	0.027	-0.070	119160.425	-1068.377	-0.529	0.608
Satyam	-0.170	0.029	-0.068	77817.176	-828.387	-0.545	0.598
HCL	-0.273	0.074	-0.018	91177.153	-1528.664	-0.897	0.391

The regression equations can thus be constructed as;
Infosys
EBIT_Infy = 223602.593 - 2990.549 (Exch_Rate)
TCS
EBIT_TCS = 340267.028 - 5492.455 (Exch_Rate)
Wipro
EBIT_Wip= 119160.425 - 1068.377 (Exch_Rate)
Satyam
EBIT_SAT = 77817.176 - 828.387 (Exch_Rate)
HCL
EBIT_HCL = 91177.153 - 1528.664 (Exch_Rate)

DISCUSSION:

- There is generally weak correlation between exchange rate and Operating profits. For all the companies, the correlation is negative and less than 0.500, the highest being TCS' -0.431 and the lowest being Wipro's -0.165.The coefficient of determination is also very weak averaging between 2.7% for Wipro and 18.6% for TCS. Implying that there is less association between ecahange rate and operating profits.

EXCHANGE RATE VOLATILITY AND SHARE PRICES

The relationship between share price and exchange rate can be analysed from the data in *table* below

[19] HCL Technologies Ltd., Quarterly reports 2005-2007
[20] Jyotsna & Veerendra, Indian IT Industry, will it be a victim of "Dutch Disease"? Treasury Management, February 2008.
[21] http://sify.com/finance/fullstory.phd?id=14579322

TABLE – 4: RELATIONSHIP BETWEEN EXCHANGE RATE AND SHARE PRICE

	Correlation	Coefficient of Determination R^2	Constant , α	Beta value, β
Exchange rate				
Infosys	0.820	0.672	-1593.887	85.967
TCS	0.779	0.606	-741.203	45.779
Wipro	0.829	0.688	-602.404	27.388
Satyam	0.300	0.090	292.284	4.008
HCL	0.799	0.639	-2106.520	60.143

DISCUSSION:

Infosys

There is a positive correlation between exchange rate and the share price of Infosys stock The relationship is very strong and highly positive. The coefficient of determination R^2 of 67.2% is high and thus indicates that the movement in the infosys share price can be explained by the exchange rate movements. There degree of relationship can be explained by the regression equation below;

Share P_Infy = -1593.887 + 85.967(Exch_rate)

TCS

There is a strong positive correlation between exchange rate and the share price of TCS The coefficient of determination, R^2 of 60.6% is also high enough to justify using the model. Thus, the movement in the TCS share price can be explained by the exchange rate movements. The degree of relationship is thus explained by the regression equation below;

Share P_TCS = -741.203+ 45.779 (Exch_rate)

WIPRO

There is a strong positive correlation between exchange rate and the share price of Wipro. The coefficient of determination, R^2 of 68.8% is also high. This implies the model will correctly bringout the relationship. Thus, the movement in the TCS share price can be explained by the exchange rate movements. The degree of relationship is thus explained by the regression equation below;

Share P_Wipro = -602.404 + 27.388 (Exch_rate)

SATYAM

There is a very weak positive correlation between exchange rate and the share price of Satyam. The coefficient of determination, R^2 of 9.0% is too low. This implies the model will not correctly bringout the relationship. Thus, the movement in the Satyam share price can't be explained fully by the exchange rate movements. The degree of relationship can be explained by the regression equation below;

Share P_Satyam = 292.284 + 4.008 (Exch_rate)

HCL

There is a strong positive correlation between exchange rate and the share price of HCL. The coefficient of determination, R^2 of 63.9% is also high. This implies the model can correctly bringout the relationship. Thus, the movement in the HCL share price can be explained by the exchange rate movements. The degree of relationship is thus explained by the regression equation below;

Share P_HCL = -2106.520 + 60.143 (Exch_rate)

CONCLUSIONS

REVENUE AND EXCHANGE RATE

- Revenues of all the five IT companies is increasing but at a decreasing rate
- On the relationship with revenue, the study found out that there is a weak and negative correlation coefficient. Further, the coefficient of determination is low, implying that exchange rate is a weak factor in explaining the revenue movements. Therefore other factors that explain this trend in revenue:
  - Decline in dollar denominated exports, in favor of the Euro
  - Hedging currency exposures to minimize volatility impact
  - Pursuing other value based strategies that have helped improve the quality of services and thereby help maintain growth
- The regression equations obtained help clarify the nature of relationship that exist between INR and USD. It has been found that an appreciation of USD against INR reduces revenue, and similarly depreciation in exchange rate between USD and INR increases revenue, other factors being constant, because all the revenues are billed in dollar and there is negative correlation between exchange rate and revenues.

OPERATING PROFIT AND EXCHANGE RATE

- Operating profit has also followed the same trend as revenue, increasing at a decreasing rate
- The operating margins have however been coming down
- The study also found out that there is a weak and negative relationship as indicated by correlation coefficients of the different companies in the sample. The coefficient of determination is also very weak averaging between 2.7% and 19%. Thus, exchange rate movements have no significant impact on operating profits
- The same observations can be made from the results of the regression. The two variables are negatively related thus implying that an increase in exchange rate reduces operating profit and vice versa.

SHARE PRICES AND EXCHANGE RATE

Observations from the study on the relationship between exchange rate and share prices include;

- The share prices of four of the five companies (excepting Satyam) are highly positively correlated. The share price of ***Satyam*** has a low positive correlation of 0.300 and a low coefficient of determination of 9.0%. Implying that Satyam share price is less affected by exchange rate movements. But, Satyam stock price is the most volatile of the five stocks.
- The share price of ***Infosys*** is highly positively correlated at 0.820 with a coefficient of determination of 67.2%, implying is highly affected by exchange rate movements
- The share price of ***TCS*** is highly positively correlated at 0.779 with a coefficient of determination of 60.6%. However, it's share price is relatively less volatile with decreasing volatility.
- ***Wipro*** and ***HCL*** are no exceptions. They too posted strong positive correlations of 0.829 and 0.799 respectively with coefficients of determination of 68.8% and 63.9%.

In general, the companies exhibiting weak correlation between earnings and volatility have used currency derivaties effectively to minimize the risk of exchange rate volatility. Companies with moderate to strong correlation between earning and volatility have not used currency derivaties effectively and were exposed to volatility in their profitability.

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DETERMINING WORKING CAPITAL SOLVENCY LEVEL AND ITS EFFECT ON PROFITABILITY IN SELECTED INDIAN MANUFACTURING FIRMS

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ABSTRACT

A well-designed and effective working capital management has a significant contribution on profitability and liquidity position of firms. The purpose of the study is to assess working capital adequacy (relative solvency level) and its impact on profitability of firms. The study is conducted using samples of 449 Indian manufacturing firms after taking into account outliers of the subject. One-way ANOVA with mean summary and multiple means comparison test (Bonferroni, Scheffe and Sidak) and Independent t-test are used for analysis. There is a significant difference in relative solvency ratio level of firms with in manufacturing companies in relation with their operational size during the study period. Moreover, the independent t-test result reveals that firms with adequate working capital have performed better than firms with inadequate working capital in manufacturing companies during the study period. Thus, we can conclude that there is a significant difference in relative solvency level of firms and firms with adequate working capital have better performance in manufacturing companies during the study period.

KEYWORDS

Adequate working capital, required working capital, profitability, relative solvency ratio.

INTRODUCTION

Working capital management is an important component of management of corporate finance since it directly influences profitability and liquidity positions of firms in everyday activities. In any business organization, it is obvious that there must be sufficient working capital to run daily operation. To operate daily activities smoothly, working capital of firms must be adequate. Then, the concern of working capital management is to set sufficient (optimal level) of working capital and managing short-term assets and liabilities of firms within a specified period, usually one year. It is obvious that, the importance of efficient working capital management is unquestionable to all business activities because business capability relies on its ability to use effectively receivables, inventories and payables, Filbeck and Kruger (2005).

Management of short-term assets and liabilities implies the management of current assets and current liabilities. Current assets and current liabilities are the two major components of working capital of firms. The overall current assets are considered as gross working capital of firms. Gross working capital or liquid assets of firms are measured by the existing current assets, which are available for current operation and settlement of short-term obligations. In some cases, these assets sometimes may account half of the total assets. Actually, too high or too short current assets will affect the long-run return on assets (investments) as theoretical concept explains in different financial management textbooks. If current assets of firms are too low, it will affect the ability to settle short term obligation. On the other hand, if it is too high current assets, it will affect the profitability of the business. This too high or too low working capital may exist due to inefficient management of working capital of firms. Inefficient working capital management not only reduces the profitability of business but also ultimately lead to financial crises, Chowdhury and Amin (2007). Thus, efficient working capital management is an important factor for survival of firms in the long run. Sometimes, even a profitable business may fail, if it does not have adequate cash flow (shorter cash conversion cycle) to meet its current obligations when request come from suppliers and this will lead firms to shutdown.

A positive working capital indicates that a business organization ability to pay off its short term obligations at most when request come from suppliers. On the other hand, a negative working capital indicates the inability of business organization to pay short-term obligation when mature.

Therefore, working capital should neither too high nor too low. Excessive working capital indicates an accumulation of idle current assets (resources) which do not contribute in generating income (profit) for firm during the operating period. On the other side, inadequate working capital harms the credit worthiness and the day to day activities of firms. This may also finally lead firms to insolvency (bankruptcy).

LITERATURE REVIEW

Profit maximization is the ultimate objective of firms as well as protecting liquidity is an important objective too. The difficulty of working capital management is to achieve the two objectives optimally within an operating period. If profit is increased at the cost of liquidity, this may create serious problem to firms. Therefore, to solve such problem, there must be some compromise between these two objectives of firms. One objective will not achieve at the cost of other as both objectives have their own importance to firms. If firms do not care about profitability, they may not survive for a longer period. On the other hand, if firms do not care about liquidity, they may face problem of insolvency or bankruptcy.

Amit, Mallik, Debashish and Debdas (2005) in their study regarding the relationship between working capital and profitability of Indian pharmaceutical industry have found no clear relationship between liquidity and profitability. Vishanani and Shah (2007) have studied the impact of working capital management policies on corporate performance of Indian consumer electronic industry by implementing simple correlation and regression models. They have found that there is no established relationship between liquidity and profitability for the industry as a whole; but various companies of the industry depict different types of relationship between liquidity and profitability. However, majority of the companies revealed positive association between liquidity and profitability. Reheman and Naser (2007) have found in their study negative relationship between profitability and liquidity of firms, Ganesan (2007) have studied working capital management efficiency in Telecommunication equipment industry, and their study revealed significant statistical evidence and negative relationship between profitability and liquidity.

Lyroudi and Lazardis (2000) investigate the cash conversion cycle and liquidity position of the food industry in Greece. They have used cash conversion cycle as a liquidity level indicator of the food industry in Greece and tried to determine its relationship with the traditional liquidity measurement and profitability measurement of return on investment, return on equity and net profit margin. They have found significant positive relationship between cash conversion cycle and current ratio, quick ratio, receivables conversion period and inventory conversion period and negative relationship between cash conversion cycle and payable deferred period. The relationship between liquidity measurement variable and profitability measurement variables are not statistically significant and there is no relationship between cash conversion cycle and leverage ratio.

Different techniques may apply as measurement of liquidity to determine the solvency level according to existing obligation of firms. Current ratio, quick ratio and cash ratio are among the most traditional liquidity measurement techniques and the, cash conversion cycle is applied as dynamic technique for measurement of liquidity level of firms. The relationship of these traditional and modern liquidity measurement techniques are studied by Lyroudi and McCarty (1993) for small US companies for the period of 1984-1988 and they have found that cash conversion cycle is negatively related with current ratio but positively related with quick ratio. In addition, the study reveals differences between the concept of cash conversion cycle in manufacturing, retail, wholesale and service industries. The advantage of modern liquidity measurement technique helps to evaluate working capital change. In addition, it facilitates the monitoring and controlling of its components, receivables, inventories and payables.

The shorter the cash conversion cycle the quicker to recover cash from sales of finished products and the more cash will have. Hence, this will lead to have less liquid assets of firms. If cash conversion cycle is high, it will take longer time to recover cash. Thus, high cash conversion cycle implies an existence of problem in liquidity, Lyroudis and Lazardis (2000). Mukhopadhyay (2004) has stated that firms are badly constrained to smoothly run the day to day operations if there is negative working capital and also difficult to settle short term obligations. Singh (2004) states that the liquidity position of any firm mainly depends upon accounts receivable collection and payables deferred policy as well as inventories conversion period of firms.

Kim, Mauer and Sherman (1998) have examined the determinants of corporate liquidity of 915 US industrial firms for the period of 1975 to 1994 by using panel data and different model. They have found that firms with large market to book ratio have significantly larger position in liquid assets. In addition, firm size tends to be negatively related to liquidity. Their finding revealed that positive relationship between liquidity and cost of external financing to the extent that market to book ratio and firm size are reasonable proxies for the cost of external financing. They also found that firms with more volatile earnings and lower return on physical assets relative to those on liquid assets lead to have significantly larger position in liquid assets.

Mehar (2001) has studied the impact of equity financing on liquidity of 225 firms listed in Karachi stock exchange for the period 1980 to 1994 by using a pooled data. The finding of the study depicted that equity financing plays an important role in determining the liquidity position of firms. From this finding, it can be concluded that equity and fixed assets have positive relationship with working capital, in the long term, however, the liquidity position will be deteriorated with the increase in paid up capital. Hsiao and Tahmiscioglu (1997) in their study revealed that liquidity might affect by substantial differences across firms in their investment behavior and firms characteristics.

Enyi (2005) has studied the relative solvency level of 25 sample firms. The finding of the study reveals that the relative solvency level model fulfills the gap created by the inability of traditional liquidity measurement of solvency level, like current ratio, quick ratio and other solvency ratio effectively to determine the proper size or volume of working capital. In addition, the study reveals that firms with adequate working capital in relation with their operational size have performed better than inadequate working capital (less working capital) in relation with their operational size. Bhunia (2007) has studied liquidity management of public sector Iron and Steel enterprise in India. He has found that the actual values of working capital lower than the estimated value of working capital for both companies under study and poor liquidity position in case of both companies.

In general, different research studies have tried to investigate the liquidity position of firms by using different ratios like current ratio, quick ratio and cash conversion cycle. Current ratio and quick ratio are static balance sheet ratio, which can explain the short term solvency level of firms on specific data whereas cash conversion cycle is modern measure of liquidity which combines balance sheet and income statement data. It shows the length of conversion period of non-cash current assets in to cash during the operating period. Otherwise, it cannot indicate the short term solvency level of firm or the adequate working capital in relation with firms operational size. Therefore, current ratio, quick ratio and cash conversion cycle have problem to determine relative solvency level of firms with operational size during an operating period. Therefore, the present study tries to investigate adequate working capital (relative solvency level) of firms in relation with their operational size during the operating period.

OBJECTIVES OF THE STUDY

It is obvious that inefficient management of working capital will lead firms to achieve under performance. A firm performs under its capacity not only decreases the current profitability but also its future survival is under question. Firms need adequate working capital to run daily activities, which is enough for current operation. Working capital should not be too high or too low. It should be adequate for current operation.

Thus, this empirical study designs

a) To measure the relative solvency level (adequate working capital) of firms in relation with their operational size.

b) To investigate the effect of working capital solvency level on profitability of firms.

HYPOTHESIS OF THE STUDY

This research is focused on working capital solvency level of firms and its effect on profitability. Hence, the empirical study is addressed the following hypotheses.

Hypothesis 1. There is no significance difference in solvency level of companies within manufacturing industry.

Hypothesis 2. Firms' that maintain adequate level of working capital in relation with their operational size do not perform better than inadequate (less than adequate) working capital level.

RESEARCH METHODOLOGY

The purpose of this research is to identify some important factors, which will enhance the performance of firms, and to contribute some aspects to working capital management process with reference to India. The study is emphasized on the determining of working capital solvency level and its impact on profitability of manufacturing firms.

DATA COLLECTION

Since the study is based on secondary data, the main source of data is Indian database of PROWESS. The total population of the study is all manufacturing companies listed in the databases. Firms that have full data for the whole study period of 1999-2008 are included in the population. Samples of 600 firms from the population are selected on a random sampling method based on their proportion from manufacturing companies. The numbers of firms are reduced to 449 after the removal of some outliers.

In testing of association, differences and/or impact of working capital on firms' performance, there are two major kinds of variables. These major variables are dependent and independent/explanatory/ variables. A dependent variable is the presumed effect, whereas, an independent variables are the supposed to be cause, Pedharzur and Schmelkin (1991). So, the following dependent and explanatory variables are employed in the study.

This study examines working capital solvency level of firms in relation with their operational size and its effect on profitability of firms. Profitability is the dependent variable for the study. Different scholars are used different measurement for profitability variable. In this study for profitability measurement GOP (Gross operating profit) is used as dependent variables and RSR (relative solvency ratio) is used as independent variable.

RSR= relative solvency ratio is the ratio of available working capital divided by required working capital

To calculate the required working capital the following formula is used as Enyi (2005) applied in prior study.

$$WCR = \frac{TOC}{n} \text{ X OBEP}$$

Where: -
TOC = Total Operating Cost (TS – PBT)
N = cycles may be in days, weeks or months
OBEP = Operational breakeven point

DESCRIPTIVE STATISTICAL ANALYSIS

Descriptive statistical analysis shows variable mean, standard deviation, minimum and maximum value of different variables. This helps to know the mean, standard deviation, minimum and maximum values of different variables of the study.

The average relative solvency level ratio (rsr) of firms is 0.492 and the standard deviation from the mean is 0.538 in both sides. The minimum and maximum values of rsr are -0.9 and 1.87 of rupees respectively. The mean value of gross operating profit is 0.06 and it is deviated from the mean in both sides by 0.1. The minimum and maximum values of gross operating profit during the study period are -1.12 and 1.32 respectively.

The minimum relative solvency ratio as indicated in table 1 is -0.9(-90%) and the maximum is 1.87(187%). However, the mean value of relative solvency ratio is less than one (0.492). This means that the mean value of relative solvency ratio (rsr) is less than the required working capital in relation with operational size of firms. Therefore, according the descriptive statistics in table 1, the minimum rsr (relative solvency ratio) is negative, while the maximum current assets are more than the required level of working capital. Too high or low working capital in relation to current operation has an impact on firms' performance unless otherwise this should manage properly and efficiently.

TABLE 1: DESCRIPTIVE STATISTICAL ANALYSIS FOR VARIABLES INCLUDED IN THIS STUDY

Variable	Obs	Mean	Std. Dev.	Min	Max
rsr	449	0.492	0.538	-0.900	1.870
Gop	449	0.06	0.10	-1.12	1.32

ONE-WAY ANALYSIS OF VARIANCE (ONE-WAY ANOVA)

One-way ANOVA with a mean summary and multiple mean comparisons test (Bonferroni, Scheffe and Sidak) are applied in order to investigate whether there is significant difference among companies within the same industry in terms of relative solvency ratio level. ANOVA helps to examine overall significance differences among companies. However, the ANOVA result does not tell where differences exist among pair mean values of companies, if the group are more than two. Thus, mean summary and multiple comparisons tests (Bonferroni, Scheffe and Sidak) are applied to examine differences between each pair of companies mean.

HYPOTHESES

The study hypothesis is restated below and the result of the appropriate statistical analysis for testing the hypothesis is disclosed under here.

H_o = There is no significant difference in solvency level of companies within manufacturing industry.

TABLE 2: ANALYSIS OF VARIANCE FOR WORKING CAPITAL RELATIVE SOLVENCY LEVEL OF COMPANIES WITHIN MANUFACTURING INDUSTRY

Analysis of Variance					
Source	SS	df	MS	F	Prob > F
Between groups	52.62	7.00	7.52	27.01	0.000
Within groups	1249.22	4489.00	0.28		
Total	1301.83	4496.00	0.29		

Bartlett's test for equal variances: chi2(7) = 19.053 Prob>chi2 = 0.043

Table 2 indicates the relative solvency ratio (rsr) differences among companies within manufacturing industry. The ANOVA result of F-value and its associated p-value are 27.01 and 0.00 respectively. This result reveals statistically highly significant working capital relative solvency ratio differences among companies within manufacturing industry during the study period. Nevertheless, this result does not explain differences in between pair of companies during the study period as the groups are more than two. It shows only an existence of overall differences among companies within manufacturing industry under study.

This means that, this one way ANOVA significant value indicates at least one of the company relative solvency ratio is differ from other companies' relative solvency ratio in manufacturing industry during the study period. In addition to ANOVA's F-value significant test, Bartlett's test of equal variance shows a significance variation among companies in working capital relative solvency ratio. The assumption of Bartlett's equal variance of all firms relative solvency ratio is rejected and the alternative hypothesis that firms have no equal variance is accepted. Therefore, this Bartlett test of equal variance confirms the ANOVA's result of an existence of relative solvency ratio mean differences among companies during the study period in manufacturing industry.

The existence of mean differences between pair of companies can easily identify from the mean summary table of all companies as indicated in table 3. This table is also could not explain whether difference between pair of companies mean is significant or not.

TABLE 3: MEAN SUMMARY OF INDUSTRIES ON RELATIVE SOLVENCY RATIO IN MANUFACTURING COMPANIES

companies	Mean	Std. Dev.
Chemical	0.545	0.505
Food & Beverage	0.347	0.541
Machinery	0.667	0.542
Metal & Metallic product	0.411	0.517
Miscellaneous	0.516	0.532
Non-Metallic & Mineral Prod.	0.643	0.565
Textile	0.380	0.544
Transport Equipment	0.490	0.495
Total	0.492	0.538

Table 3 indicates differences among pair of companies mean. For example to get differences between mean of Chemical company and other companies, the mean value of Chemical company should be deducted from the mean value of each one of the remaining companies mean value. These mean differences between Chemical Company and the remaining companies are 0.198, -0.122, 0.133, 0.029, -0.099, -0.165 and 0.054 respectively. Therefore, this result implies that there are differences between Chemical Company mean and other companies mean during the study period in manufacturing industry. Moreover, the same procedure can be applied to get mean differences among the remaining pairs of companies.

These differences show that all companies mean values are not the same during the study period. It supports the ANOVA result of significant differences among means of companies and Bartlett's test of equal variance. Still pair of companies mean differences significance are not explained either of the previous techniques. They have shown only an existence of mean differences among companies. To identify such significant mean differences between pair of companies Bonferroni, Scheffe and Sidak multiple comparisons test should apply. The result of all multiple mean comparison test are presented below.

TABLE 4: MULTIPLE COMPARISONS TEST OF COMPANIES MEAN DIFFERENCES (RELATIVE SOLVENCY LEVEL)

A. COMPARISON OF RELATIVE SOLVENCY LEVEL BY COMPANIES (BONFERRONI)

Row mean Col mean	Chemical	Food & Beverage	Machinery	Metal & Metallic	Miscellan.	Non-metallic	Textile
Food & Beverage	-0.198*						
Machinery	0.122*	0.320*					
Metal & Metallic	-0.133*	0.064	-0.255*				
Miscellaneous	-0.029	0.169*	-0.151*	0.105			
Non-metallic	0.099	0.296*	-0.023	0.232*	0.127		
Textile	-0.165*	0.033	-0.287*	-0.032	-0.136*	-0.264*	
Transport equip.	-0.054	0.143*	-0.176*	0.079	-0.025	-0.153*	0.111*

*Significant at 5%(p<0.05)

B. COMPARISON OF RELATIVE SOLVENCY LEVEL BY COMPANIES (SCHEFFE)

Row mean Col mean	Chemical	Food & Beverage	Machinery	Metal & Metallic	Miscellan.	Non-metallic	Textile
Food & Beverage	-0.198*						
Machinery	0.122*	0.320*					
Metal & Metallic	-0.133*	0.064	-0.255*				
Miscellaneous	-0.029	0.169*	-0.151*	0.105			
Non-metallic	0.099	0.296*	-0.023	0.232*	0.127		
Textile	-0.165*	0.033	-0.287*	-0.032	-0.136*	-0.264*	
Transport equip.	-0.054	0.143*	-0.176*	0.079	-0.025	-0.153*	0.111

*Significant at 5%(p<0.05)

C. COMPARISON OF RELATIVE SOLVENCY LEVEL BY COMPANIES (SIDAK)

Row mean Col mean	Chemical	Food & Beverage	Machinery	Metal & Metallic	Miscell.	Non-metallic	Textile
Food & Beverage	-0.198*						
Machinery	0.122*	0.320*					
Metal & Metallic	-0.133*	0.064	-0.255*				
Miscellaneous	-0.029	0.169*	-0.151*	0.105			
Non-metallic	0.099	0.296*	-0.023	0.232*	0.127		
Textile	-0.165*	0.033	-0.287*	-0.032	-0.136*	-0.264*	
Transport equip.	-0.054	0.143*	-0.176*	0.079	-0.025	-0.153*	0.111*

*Significant at 5% (p<0.05)

Table 4(A-C) indicates paired mean differences of companies in three different mean comparison tests. The statuses of Chemical Company mean differences in all three-comparison tests are as follow. Mean difference of Chemical company with Food & Beverage company, Machinery company, Metal & Metallic company and Textile company are significant at 5% level of significance whereas mean differences between Chemical company with Miscellaneous company, Non-Metallic & Mineral company, and Transport Equipment company are not significant at 5% level of significance. Even if, there is mean differences between Chemical Company and all other companies as indicated in the mean summary table 3, the mean differences with four companies (Food & Beverage, Machinery, Metal & Metallic and Transport Equipment companies) are only significant. However, the mean differences with the remaining three companies are not significant at 5% level of significance.

All most all three comparisons test of mean differences provide the same result to all pairs of companies mean except the pair result of Textile Company and Transport Equipment company mean difference. It is not significant in the mean comparison test of Scheffe. However, this pair means difference is significant in both two mean comparison test (Bonferroni and Sidak).

Thus, the study reveals significant mean differences in working capital relative solvency ratio level during the study period among manufacturing companies. Around 60% (17 pairs out of 28 pairs are significant) of manufacturing companies have significant relative solvency ratio differences during the study period.

The overall result (ANOVA, mean summary and multiple means comparison test) implies that there is significant difference in working capital relative solvency ratio in relation with operational size of firms within manufacturing industry. So, the null hypothesis that there is no significant difference in solvency level of firms within manufacturing companies is rejected and the alternative hypothesis is accepted.

INDEPENDENT T-TEST

Independent t-test is applied to investigate the effect of relative solvency ratio level on profitability of firms. Independent t-test helps to know whether there is a significant difference between firms, which have less than one relative solvency ratio level(inadequate working capital) and one or greater one relative solvency ratio level(adequate working capital) on profitability of firms during the study period.

The hypothesis is restated below.

Hypothesis = Firms' that maintain adequate level of working capital in relation with their operational size do not perform better than inadequate (less than adequate) working capital level.

TABLE 5: SUMMARY STATISTICS FOR TWO GROUPS MEAN (LESS THAN ONE RELATIVE SOLVENCY AND ONE OR GREATER THAN ONE RELATIVE SOLVENCY LEVEL)

Group Statistics					
	FIRM	**N**	**Mean**	**Std. Dev.**	**Std. Err. Mean**
RSR	**< 1**	368	0.302702	0.377882	0.006227
	>=1	81	1.346855	0.246085	0.008625

Table 5 provides summary statistics for the two groups. In this table, there are two groups and the first group contains all firms, which have less than one relative solvency ratio level, and the second group contains firms, which have one or greater than one relative solvency ratio level. There are 368 firms in group one and 81 firms in group two. The mean value of group one and two are 0.303 and 1.347 respectively. The standard deviation from the mean for group one and two are 0.378 and 0.246 respectively.

Table 6 contains the main test statistics of independent t-test. This table has two rows containing test statistics that are necessary for analysis. First row labeled as equal variance assumed and the second row is labeled as equal variance not assumed. The result shows that Levene's test for equality of variances is less than 0.05 (p = 0.000). This implies that there is no equal variance. Therefore, it is possible to read the test statistics from table row labeled equal variance not assumed as the assumption of homogeneity of variance violated.

TABLE 6. INDEPENDENT t –TEST OF RELATIVE SOLVENCY RATIO

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig.
RSR	**Equal variances assumed**	105.41	0.000	-75.38	449	0.000
	Equal variances not assumed			-98.15	1774.77	0.000

Significant at 5% (P < 0.05)

The independent t-test, t-value is significant (p = 0.000) at 5% level of significance. This shows that there is a significant performance difference between firms, which have less than one relative solvency ratio level and one or greater than one relative solvency ratio level in relation with their operational size of firms. It means that firms with adequate working capital (one or greater than one relative solvency ratio level) in relation with their operational size have performed better than those firms which have less than required working capital(less than one relative solvency ratio level) in relation with their operational sizes. Therefore, the null hypothesis that firms' maintain adequate level of working capital in relation with their operational size do not perform better than inadequate working capital level is rejected and alternative hypothesis is accepted.

This study also clarifies that majority of firms' available working capital is less than required working capital in relation with their operational size during the study period. As indicated in table 6 there are 368 firms which have less than required working capital in relation with their operational size during the study period whereas only 81 firms which have an adequate working capital in relation with their operational size during the study period. This finding is inconformity with the finding of (Bhunia, 2007) actual working capital lower than the estimated working capital of Iron and steel enterprise in India.

CONCLUSIONS

Generally, the ANOVA result reveals that there is a statistically highly significant difference among manufacturing companies in working capital relative solvency ratio level. The finding of Bartlett's test of equal variance, mean summary and multiple means comparison test (Bonferroni, Scheffe and Sidak) are supported the finding of ANOVA mean differences among manufacturing companies. Thus, relative solvency ratio level of firms differs according to their operational size during the study period for manufacturing companies in India.

Independent t-test result reveals that firms with adequate working capital in relation with their operational size have performed better than inadequate working capital in relation with their operational sizes. It implies that adequate working capital have significant effect on firms' performance because they can run their business activities without interruption during an operating period. Therefore, the null hypothesis that firms maintain adequate level of working capital in relation with their operational size does not perform better than inadequate working capital level is rejected and alternative hypothesis is accepted. This finding is inconformity with the finding of (Enyi, 2005) that companies with adequate working capital relative to their operational size have performed better than inadequate (less than required) working capital level.

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FUTURE NUTRITION & FOOD OF INDIA – THE AQUA-CULTURE: AN ENVIRONMENTAL MANAGEMENT & CULINARY PARADIGM PERSPECTIVE STUDY FOR A SUSTAINABLE NATIONAL STRATEGY

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ABSTRACT

Census 2011 of Indian demography is alarming, what can be the census results in 2111 A.D. that is the priority concern of the policy makers and the strategists of the country. Environment management towards a sustainable development along with the food and agricultural products with eco-friendly strategies is the clarion call of the time. Food for the growing population needs to be produced in the ample marine resources of India and technology needs adequate development to sustain the development. Future nutrition and food of India will come from the aquaculture, which will substantially replace the agriculture on the land surface. The current trend of aquaculture food is growing at a rate which is more than hundred percent per decade. High production and organic production with planned culture of aqua-food will provide future sustainability for the world's most populous country. Some prime issues are examined and in the light of the environment management and culinary paradigm perspective.

KEYWORDS

Aquaculture, Fishery, Water Pollution, Organic Production, Eco-friendly, Fish Catch, Fish Culture.

INDIA & WORLD AQUACULTURE – AN OVERVIEW

World aqua-culture production including marine plants and lives has touched 59.4 million to tonnes in 2004 in India, which value USD $ 70.3 billion, comprising nearly 50 percent of the world fish production. As per the estimates of the food and agriculture organization the fish production will reach 100 million tonnes by 2030AD. The trend indicates that aqua-culture is bound to witness expansion, diversity and intensity with modifications in the current system and practices. As per the world fish and aqua-culture production statistics, China leads the world with 41.33 million tones accounting for 69.6 percent of the world production followed by India with 2.47 million tones accounting for 4.2 percent of the world by 2005. (Sakthivel, 2007) Other producers are Philippines 1.7 million tonnes (2.5 percent), Vietnam 1.22 million tonnes (2.1 percent), Thailand 1.17 million tonnes (2.0 percent), South Korea 0.95 million tonnes (1.6 percent) and Bangladesh 0.91 million tonnes (1.5 percent) of the world production. It clearly indicates the Asian coun tries dominance in the global aqua-culture scenario.

India's contribution is mainly in carps (Rohu, Catla, Mirgal and Common Carp) and tiger shrimp. Other major lines of production such as seaweed, bivalves and sea fish with large potential await development. India is a wet country with southwest and north east monsoon rains replenish a few million hectares of water-bodies every year. These water-bodies comprising fresh water, brackish water and sea water are and "gold mines" for aquatic food production. Out of 2.41 million hectares of ponds tanks in fresh water, only 1.5 million hectares have been utilized, with average production of 2 tonnes per hectare a year in India. (Sakthivel, 2007) Only 1.5 Lakh hectares out of 2.41 million hectares of brackish water are used for shrimp production with an average of 800kg/hectare. The potential in sea water is very large.

NON-MARINE AQUACULTURE

Fresh water aqua culture is estimated at 15 million tonnes per year in India. Present national production is not more than 2.5 million tonnes. The expected growth can take place through strategic implementation of increasing productivity of pond culture from the average 2 tonnes to 5 tonnes per hectare through indigenous technology up gradation. Productivity of water reservoirs and Panchyat village tanks can be from the current production of 100 kg to 600 kg per hectare through adequate stocking of fingerlings. Need of introduction of cage culture in reservoirs and other water-bodies in the places where suitable and consistent depths of water are available for six to eight months in a year. Scientific introduction of diversified species, such as catfish and murrels (air breathing fish) to make use of seasonal water deposits and water bodies for enhancement of fresh water aquaculture in India to provide adequate nutritive food is the prime need of the time.(Sakthivl, 2007) Poly-culture of carps with scampi in ponds and tanks to generate higher income for farmers and Panchayats. A favourable policy to support aquaculture from multiple ownership of common water bodies as well as supply of all essential inputs such as seed, feed, technology and finance will go a long way in utilizing the fresh water bodies rationally for aquaculture and unfold the true potential 15 million tones, worth INR 45,000 crores.

BRACKISH WATER & SEA BASE AQUA-CULTURE TREND

Shrimp and prawn farming dominates this sector with production of about 1.25 lakhs tones per year. Only 15 percent of the total area is utilized at present. China and South East Asia have introduced disease resistance exotic American white shrimp and stepped up production to more than one million tonnes per year. As a result, the world shrimp market is flooded with shrimp and the price has fallen drastically. The production cost of American white shrimp is almost half that of tiger shrimp and the former is amenable for intensive and super intensive system (up to 40 meter / ha in indoor culture in China) it has overtaken tiger shrimp production. There is hesitation to introduce exotic species, shrimp farmers needs support from the government to weather crisis period created by virus and sustain the huge investment (INR 10,000 crore), employment of nearly one million rural population and export earnings of more than INR 45 billion every year. Global consumption of shrimp is anticipated to increase further when the price drops.

There is a prime need for diversification. Potential species are mud crabs, Chanos, mullets, sea bass and pearl spot fishes. The technology for hatchery seed production of mud crabs and sea bass fish has been developed recently by the Central Institute of Brackish Water Aquaculture (CIBA) Chennai, the Marine Products Export Development Authority (MPEDA). The experimental culture with grow-out technology has proved the economic viability. Mudcrabs are wide spread in many parts of Indian estuaries, awaiting a major breakthrough in aquaculture production. Two candidate species (Scylla serrata and Scylla tranquebarica) have been successfully bred in the hatchery of crab seed production in Tamil Nadu recently, and supply of crab seeds to farmers for culture is expected to start shortly. Meanwhile (CIBA) has successfully developed a cost effective pellet feed for crab. Mudcrab culture is identified as one of the best alternatives for shrimp farmers who are suffering heavy financial losses due to viral disease. It is possible to produce one Lakh tones of mud-crabs worth Rupees 2,000 crores annually in India.

SEA BASS AQUACULTURE

CIBA (Central Institute of Brackish Water Aquaculture) has developed technology for hatchery seed production of sea bass for the first time in India. The cost effective pellet feed production is still in the experimental stage. This fish tolerates wide variation in environmental conditions, India holds a great potential in this area. This technology has perfected in South East Asia, so there is no reason for not starting sea bass culture in India. India is endowed with rich resources of bivalves (mussels, oysters, and clams) which remain totally untapped for aquaculture except a small quantity of mussels produced in Calicut, Kerala. These can emerge as the major source of animal protein. The resource survey done by the CMFRI has brought out a broad picture on the distribution of bivalves along the Indian coast. It is not a comprehensive survey; there are many rich unknown grounds in the inshore waters as well as in the inter-tidal zones, which has not yet been explored properly. The estuaries, back waters, costal lagoons and inter-tidal zone along the Indian coast provide enormous natural habitats for the culture of bivalves. Regular monitoring for phytoplankton, biotoxins and amnesic shell poisoning (PSP) is mandatory while planning production for human consumption. Global production of bivalves has reached 12.4 million tones. India can set up its bivalves to a limited extent, and domestic market can be developed.

SEA BASE AQUACULTURE FARMING

Indian aquaculture has to be eventually extended in to the Indian Ocean because of the population pressure and limitations of land and fresh water. Sea farming and aquaculture is popular in many South East Asian countries such as China and Japan. India is yet to make a real beginning. Aquaculture production from mariculture was 30.2 million tonnes in 2005, representing 51 percent of the global production. Marine farming of fishes in floating net cages has grown in to a multibillion-dollar industry. Marine fishes like salmon, tuna, groupers, sea bass, milkfish, sea bream, cobia, snapper, and pompano are culture in cages. Silver pomfret has been included in the list recently. Of these, sea bass, groupers, prom fret and cobia have great potential for farming in sea cages. Seaweeds occupy the second place in global aquaculture, which contributes 24 percent as per the FAO (Food and Agricultural Organisation 2006) report. Seaweeds are wonder plants of the sea and considered as the medical food of the 21st century. These are popularly called “sea vegetables” and are grown in the sallow seas by absorbing the nutrients in the sea water. These are packed with minerals and very high nutrients and food substitutes. India has richness in seaweed resources with more than 800 species. Seaweed farming and seaweed products manufacturing are emerging as a multibillion-dollar industry in the world, employing millions in the coastal areas of many countries. Sizeable natural seaweed collection is mainly in the gulf of Manner. (Sakthivel, 2007) Some manufacturers of the seaweed products attempted cultivation mainly for agarophytes (Gracilaria and Gelidiella) and didn’t succeed for various reasons. The most potential carrageenophyte like Kappaphycus alvarezii was taken up for cultivation recently. The Central Salt and Marine Chemical Research Institute (CSMCRI) under the CSIR (Council of Scientific & Industrial Research) did a lot of research on Kappaphycus alvarezii and developed the technology of cultivation. These technologies were sold to private units on a consultancy basis. Private industries are finding it difficult to get involved in direct cultivation because of heavy lease charges to the Government, they encouraged local self help groups (SHGs) to undertake seaweed cultivation by disseminating the technology through training, assisting them to obtain loan from lead banks like State Bank of India and subsidies from the Government and guaranteeing optional buyback of the produce. Local NGOs (Non Government Organisations) were involved in liaison work. Multinational companies like PEPSI have executed an agreement with SBI for an assured buyback. The department of earth science wants to undertake this scheme for the economic rehabilitation of one Lakh families of the coastal poor in India. Kappaphycus is a major source of carrageenan and bio fertilizer with numerous applications in food, chemical, pharmaceutical and several other industries, the world demand is going up. India can drive maximum benefit through bio fertilizer production to enhance the growth and yield several useful plants including rice, corn, vegetables and sugarcane.

Organic food production is the growing trend for the safest biodiversity and ecological balance of the planet earth. Aquatic food production by following the principles of organic aquaculture is emerging as the most dynamic sector today. Aqua-frames and processors have to gear up themselves to adopt organic principles in farming: Breeding aquatic animals without hormones; selection of aquatic species for culture without genetically modified organism; no use of inorganic fertilizers; criteria of fishmeal, used in feed, to be eco friendly; no synthetic pesticides and herbicides; production of aquatic species with limited stocking density; use of natural medicines; processing of aquaculture produce following organic principles; and monitoring environmental data to detect negative impact. Unpredictable viral and bacterial diseases are potential threats to aquaculture. The success in future will depend on development of biotechnology to combat disease, promote disease resistant brood stock, cost effective nutritious feed and feeding mechanisms, and live feed production to the larvae of fin fishes, pond health management and effluent treatment through “bioreactors”.

INDIA - FISH PRODUCTION & CONSUMPTION TRENDS

Fishes constitute an important and plentiful source of high quality animal protein and rich food meal. About 70 percent of the population would not mind eating fish if good-quality fish is available at a reasonable price. In India the total number of boats, dugouts, catamarans and other crafts engaged in fishing are more than 3.5 lakhs, of which 25 thousands are mechanized crafts. India has a coastline of about 6,100 km long with the inclusion of island shores it is about 7,400 km long, and the total available area for fishing, both inshore and offshore, is nearly 4800 square kms. In addition there are extensive inland water areas comprising the numerous rivers, freshwater and brackish-water lakes, reservoirs, lakes, ponds and swamps. At present the available culturable fresh water area is estimated at 1.62 million hectares. Brackish-water fish farming is nearly 2.02 million hectares. So far 0.61 million hectares of inland waters are utilized for fish farming. Per-capita consumption of fish in India is less than 9 kg per year. (Prasad, 2003) About 5.70 million hectares of water body produced 63.05 Lakh tones of fish in 2005, out of which inland water bodies produced 32.20 Lakh tones and marine water bodies produced 27.85 Lakh tones. In aquaculture, the farm holdings are small and highly dispersed. However, in terms of number, the artisanal fishers and fish farmers dominate the fishing scenario in the country.(Yadava & Mukherjee, 2007) As per the KPMG survey in 2005, there are about 1,400 fishing harbours and fish landing centers (FLC) in the main land to provide landing and berthing facilities to the fishing fleets. Most of these centers lack the capacity to handle all the boats operating from the vicinity or the volume of the fish landings is insufficient to make them profitable for establishment of commercially viable post-harvest infrastructure. At the national level, there are about 4000 freezing plants with an aggregate freezing capacity of 7283.36 tonnes per day. While this is clearly not sufficient to cater even to the marine fish production, data shows that they are optimally utilized only during the peak season.

Fisheries are playing a key role in the changing profile of Indian economic growth. India produced 6.51 million tonnes of fish in 2006 contributing 1.04 and 5.34 percent of the total GDP and GDP from agriculture respectively. Share of inland fisheries sector to the total fish production, which was 29 percent in 1950 has gone up to 55 percent at present. The aquaculture sector showed an overwhelming growth of 468 percent during the last two decades and is presently contributing 21.6 percent by volume and 49.3 percent by value to the total fisheries products exports. While nearly five Lakh tones of fish worth over INR 7.000 crores are exported annually. The demand for fish is estimated to be around 9 million tonnes by the end of the eleventh plan. Inland fishery resources and potentials: India is blessed with huge inland fishery resources consisting of 2.36 million hectares (ha) of ponds and tanks, 1.3 million ha of bheels, jheels and derelict waters, 0.12 million kilometers of canals, 3.15 million ha of reservoirs, 45000 kilometers of rivers, 2.7 million ha of estuaries and 1.2 million ha of brackish water area that could be put to different fish culture and capture practices.

MARINE FISH ECOLOGY OF EAST & WEST COAST OF INDIA

With an extensive coast-line, fairly wide continental shelf area, rich fishing grounds surround the islands of Andaman, Nicobar and Lakshadweep and with an operational advantage over wide sectors of the Indian Ocean, India occupies a pre-eminent position in marine fish production. The marine fisheries of India comprises of varied species of fish and crustaceans, which are either under-exploited or unexploited. On an average 70 percent of the marine fish catch is landed on the west coast. A characteristic of the Indian fisheries is the dominance of pelagic and multi-pelagic fisheries. Of these two the bulk of fisheries comprise of the clupeoids, a number of species of sardines, and the Indian mackerel. While this is a general picture of the Indian fisheries, there is considerable regional variation in quality and quantity. This difference becomes quite apparent between the east and west coast of India. Although in the area of Arabian Sea is only 1.8 times that of the Bay of Bengal, the yield of fish from the former region is more than twice that of the later. Qualitatively also there are significant differences between the fisheries of the two coasts. Thus, along the west coast there is a dominance of pelagic fisheries, and large shoals of oil-sardines and mackerel are encountered only here. Even though small numbers of these form occasional fisheries on the east coast, there place seems to be taken by the less valuable clupeoids, carangids and leiognathids.

TABLE 1 – FISH CATCH COMPOSITION OF THE WEST & EAST COAST OF INDIA

Groups	Percentages	Percentages
	West Coast	*East Coast*
Clupeoids	**20.8**	**26.6**
Perches	**3.0**	**3.3**
Crustaceans	**19.6**	**7.7**
Mackerel, Seer Fishes & Cutlass Fishes	**6.1**	**23.6**
Jacks & Mullets	**1.4**	**3.4**
Elasmobranches	**4.0**	**6.3**
Flat-fishes	**1.2**	**0.7**
Tuna	**1.8**	**1.2**
Miscellaneous	**42.1**	**27.2**
Others	-	-

Source: Indian Council of Agricultural Research, 2006

Several factors contribute to this lower fish production on the east coast and to the differences in the composition of the catch along the two coasts. Although several big rivers open in to the Bay of Bengal, carrying with them large quantities of organic material and creating conditions favourable for good demersal fisheries, much of this material is presumed to be retained on the land itself because of the longer run of these rivers along the plains compared with the rivers emptying in to the Arabian Sea. Also owing to the narrow continental shelf at the mouth of the most of these rivers along the east coast much of the riverine material reaching the sea is lost to great depths. Added to these, there is an absence of large-scale upwelling which leads to the increased production of fish food in surface waters along the east coast; this is presumably the reason of the absence of shoaling fish like the oil-sardine and mackerel, mostly found in the regions coastal upwelling. (Prasad, 2003)

(I) SARDINES

Sardines are the prime constituents of our pelagic fisheries. It forms nearly 15 percent of the total marine fish landings. This group comprises a large number of species, but the oil-sardine (*Sardinella longiceps*) is the most important owing to its comparative abundance, its food value, and industrial use of its body oil. The bulk of oil sardine landings are along the Kerala and Karnataka coasts. Besides the oil sardines, there are number of allied species of commercial importance. The 'lesser sardines' particularly contribute significantly to the fishery along the east coast.

(II) MACKEREL

The Indian mackerel, Rastreliger kanagurta, is widely distributed in the tropical Indo-Pacific and constitutes another important pelagic fishery along the west coast of India. The important fish zone on the west coast extends from Ratnagiri in the north to Cape Camorin in the south. Except a few isolated ones, there is no large scale mackerel fishery on the east coast. Mackerel grows about 26 cm in length, the largest size recorded being 32 cm. in addition to Rastreliger kanagurta at least one more species, viz., Rastreliger brachysome, is known to constitute a good fishery, especially in the neighbourhood of the Anadaman Islands. A third species Rastreliger faughni has been recently reported to occur off the Chennai coast.

(III) BOMBAY DUCK

Harpodon nehereus, commonly known as Bombay duck, is a more or less localized fishery of Gujarat and Maharashtra coasts. It is also found to some extent along the west Bengal, Orissa and Coromandal coasts. The fishery over the last 20 years however has shown a declining trend even though there has been no decrease in the average size of the fish. The fish attains a maximum size of about 33 cm and is highly carnivorous. Very little of this fish is eaten in fresh condition. Almost 80 percent of the catch is sun-dried.

(IV) CRUSTACEANS

Prawns, lobsters and crabs together constitute the crustacean fishery. Of these, the prawns are the most important followed by the lobsters and the crabs. The prawn production in India is about 13.5 percent of the world production. The commercial prawn fishery is classified in to two groups, viz. the penaeids which include several large – sized marine prawns, and non-penaeids comprising mostly small sized species. *Penaeus indicus, Penaeus monodom, Metapenaeus monoceros, Metapenaeus affinis, Metapenaeus dobsoni, M. brevicornis and Parapenaeopsis stylifera* are a few of the commercially important penaeid species supporting the prawn fishery. It is now known that there are 52 species of prawns and shrimps in the Indian waters that are either currently exploited or have commercially potentialities. Within the last three decades there has been a remarkable prawn fishery.

Lobsters, as a commercial fishery, came in to prominence only in the last two decades. The fishery is prevalent at certain regions along the rocky patches of the west and east coasts, the most important being the south-west coast.

Crab fishery is under-exploited in India. About 18,000 tonnes of marine crabs were landed in 1976 mostly in southern Kerala, central Maharashtra and southern Tamil Nadu coasts. The annual catches are subject to market fluctuation. Most of the marine or brackish water crabs belong to the family Portunidae, the swimming crabs. In recent years there have been attempts to explore the deeper waters for these crustaceans. As a result, new resources of prawns and lobsters have been located. Japan and USA are the principal markets for both Indian prawns and lobster tails.

(V) TUNA

An important pelagic fishery which is very much under-exploited by India is that of tunas. The average landing of tuna in India is a little over 13,000 tonnes as against 175,000 tonnes of tunas and billfishes caught from the Indian Ocean by the Japanese. In addition to these tunas, the closely related bill fishes such as the blue marlin, the black marlin, the striped marlin, the sword fish, and the sail fish are also common in the Indian Ocean.

(VI) ELASMOBRANCHS

Elasmobranchs are the cartilaginous fishes comprising sharks, rays, dogfishes and skates. Several species of sharks and dogfishes of the genera constitute appreciable quantities of commercial catches on both the coasts. The fishery is more important along the east coast. The area where the extensive shark fishing are carried out are Kathiawar, Kanara and Kerala coasts, southern and northern sections of the east coast, and West Bengal. The important commercial use of elasmobranchs is the extraction of their liver oil which is extremely rich in vitamin A.

(VII) MOLLUSCS

Molluscs, comprising oysters, clams, mussels, squids, cuttle-fish, octopus etc., form an important resource. Their importance is not fully appreciated. Apart from being an item of food, the members of this group have mainly industrial uses. The edible oysters, mussels, clams, squid, and octopus are utilized as food. Oysters and clams can be extensively cultured; protein yields per unit area from these farms are very high. Pearl-oysters, the sacred chank, Turbo, Trochus, and widow-pane oysters are all commercially important. The pearl fisheries of the Gulf of Mannar, Palk Bay and Gulf of Kutch are well known. There is a well-established fishery of the sacred chank. It is found extensively in Palk Bay, Gulf of Mannar, Gulf of Kutch, Andaman Sea and off the coast of Trivandrum. 'Valampuri' chank, the sinistral shell, is a rarity, and it is priced high due to the belief that it wards of evil. The muscular food of the chank, which is rich in iron and copper, is eaten. There are well-organised fisheries for *Turbo* and *Trochus* in the Andamans, and for window-pane oysters in the Gulf of Kutch, Bombay harbor and its vicinity, and Corangi Bay in Andhra Pradesh. On the east coast it is found in Madras and Sonapur backwaters in Odisha. The cephalopods or the squids, cuttle-fishes octopi are generally caught in nets operated for the fishes. They are caught throughout the year. In the south eastern regions, particularly in Palk Bay and the Gulf of Mannar, there is seasonal fishery for squids.

(VIII) MISCELLANEOUS FISHERIES

Typical of tropical region, the marine fisheries of India also are composed of large numbers of groups each having a very large number of species. In addition to some of the major fisheries described above are found along the coasts of India.

TABLE 2: COMPOSITION OF CATCH OF GROUPS OF MARINE FISH IN INDIA

Groups of Marine Fish	Percentage
1. Scianeids	6.92
2. Anchovies and Whitebaits	3.65
3. Ribbon – Fishes	5.26
4. Catfishes	3.27
5. Carangids	1.71
6. Prom frets	2.98
7. Leiognathids	3.76

Source : Indian Council of Agricultural Research, 2005

Deep-water trawling conducted along the west coast has revealed the existence of several fishes which could be commercially exploited. Amongst these mention may be made of the kilimeen, the butter-fish, the lizard-fish, and *Cubiceps natelensis*.

(IX) SEAWEEDS

Although the exploitation of seaweeds cannot be termed as fishery in the strict sense, seaweeds constitute an important marine resource and are found along the rocky intertidal and sub-tidal regions of the coast of India. The Sunderbans, the Chilika lake, the deltas of Godavari and Krishna, the rocky shores of Visakhapatanam, Mahabalipuram, Gulf of Mannar, Palk Bay, Gujarat coast; and around Lakshadweep, Andaman and Nicobar islands are areas rich in sea weeds. Sea weeds are used for human consumption, as cattle and poultry feed, as manure and for industrial purposes as the source of phyco-colloids like agar-agar and algin. Although except in some of the coastal districts seaweeds are not used extensively for human consumption purpose in India. Experiments on culture of some of the economically important seaweeds in coastal waters have yielded encouraging results.

INLAND FISHERIES AND AQUACULTURE OF INDIA

India has extensive inland water bodies which sustain fisheries of commercial importance. The term inland fisheries are generally used to include not only freshwater but brackish water fisheries also. The principal types are ponds, tanks, rivers, reservoirs, irrigation canals, estuaries, backwaters, and marshy swamps. These different water areas cover nearly 9.6 million hectares and with a potentiality of 9 million tonnes of fish per year.

TABLE 3: ESTIMATED COMMERCIAL SIGNIFICANCE OF FRESH WATER FISHES

Sl. No.	Group of Fishes	Percentage
1.	Carps	35.2
2.	Catfishes	32.9
3.	Live Fishes	10.0
4.	Prawns	6.5
5.	Feather-Backs	4.8
6.	Mullets	4.4
7.	Eels	0.7
8.	Herrings & Anchovies	0.6
9.	Miscellaneous	4.9

Source : Indian Council of Agricultural Research, 2005

The inland fishes can be divided in to capture fishery and culture fishery, culture fishery is more important. Capture fisheries of inland waters are generally poor and their development is expensive and time consuming. Culture fishery, on the other hand, is highly rewarding. In the recent years considerable headway has been made in this field.

A) INLAND CAPTURE FISHERIES

The significant capture fishes are those of major Carps Catla, Rohu, Calbasu, Mrigal, Barbus supplements, Cat Fishes, air-breathing fishes, Mullets, Prawns, Feather-backs, Hilsa, Bekti, etc. The yield per unit area from rivers, reservoirs of lakes is surprisingly low, being on an average of 4 to 5 kg per hectare. In spite of existence of several large systems of rivers and lakes, the country's total capture fishery resources are exceedingly small.(Prasad, 2003) The more important river systems or rivers, the Gaga river system has the richest fresh water fish and fauna of India. These includes the well-known sport fish Mahseer, the Gangetic carps, Hilsa and several other species of commercial importancs. The Brahamputra river system on the other hand has several species of carps, catfishes, air-fishes and Hilsa. Parts of the Indus river system of India has carps, catfishes and in addition the exotic rainbow and trouts. The trout streams of Kashmir very rich and attract sport-fish enthusiasts. The Mahanadi, the Godavari, the Krishna and the Cauvery rivers also have several species of carps, catfishes and prawns. There ar some Masheer, Murrels and Perches are found in the Narmada and Tapti rivers.

Macrobracium species are important fresh water prawn fishery. The giant fresh water prawn is the most important member of the genus. Giant fresh water prawns have shown decline in the last few years. Pollution in rivers and indiscriminate fishing results in destruction of young prawns. There are possibilities in culturing them and some encouraging results have been achieved in this direction in Mahanadi river system.

Hilsa is marine species which ascends rivers for spawning purposes (Anadromous fish) and fishery is mostly based on this extensive spawning migration. The main fishery is after the monsoon rains. River Padma of the Ganges part in Bangladesh has the record catch of Hilsa and exports too.

Estuaries are part of the river systems. These are extremely interesting areas in the environmental conditions are in a state of flux and the fauna is the combination of fresh water and salt water species which can tolerate considerable variations in salinity. Amongst the various groups constituting estuarine fisheries mention may be made of the clupeoids, mullets, catfishes, sciaenids, polynemids, perches, prawns, leiognathids, soles, oysters, and mussels. Estuaries also offer scopes for culture fisheries and are highly productive. Experiments in the Lake Chilika in Odisha have yielded high production of culture tiger prawns and other species.

B) CULTURE FISHES OF INLAND WATERS

India has several reservoirs and lakes but on an average the production from these does not exceed 5 to 8 kg per hectare per year. The reservoirs and lakes offer ample scope for both capture and culture fisheries. The culture of major carps, especially in West Bengal, Odisha and Bihar, has been in vogue for centuries. The average fish production from pond culture in India has been about 600 kg per hectare per year against yields exceeding 5,000 kg per hectare per year reported by fish culturist in some of the South East Asian countries. Air breathing fishes or 'live fishes', which the carp culturist would like to eradicate from the fish farms because of their predatory habits, are extremely popular in certain states and culture of these offers considerable scope. People of Bihar, Karnataka, Andhra Pradesh and Assam prefer these live fishes to carps. There are extensive marshy or swampy areas in the country which are not suitable for culture of carps but exceedingly well for culture but exceedingly well suited for culture of these air-breathing fishes. Attempts are being made to evolve technologies for the culture of fresh water prawns. Results so far achieved have indicated the possibility of large scale culture of these prawns. Success has also been achieved in breeding them under controlled conditions. For further intensification of research in freshwater fish culture systems a Freshwater Aquaculture Research and Training Center (FARTC) was established at Dhauli, Odisha.

C) FISH-SEED PRODUCTION IN INDIA

The prime important and perhaps the most limiting factor in fish culture operations is the non-availability of pure fish seed. It is estimated that for the adequate stocking of the various water sheds the fish seed requirements will be over 9,500 million. The present production is only 4,500 million. It would not be possible to this wide gap by intensifying the collection of fish seed from natural sources alone; further, the major carps do not breed in confined waters. Fish seed for stocking purposes are generally collected from river systems where the fishes naturally breed during the monsoon months. To bridge the gap between the demand and supply of quality fish seed the Government of India has proposed to establish 5 fish hatcheries one each in Uttar Pradesh, Bihar, West Bengal, Odisha and Madhya Pradesh. Induced spawning has been extended to exotic varieties such as silver carps and grass carps, and this is being done on a limited scale in a few states.

D) FISH CULTURE IN INDIAN PADDY FIELDS

Growing fish in tropical waters is rapid. By selecting the right species, adjusting their size and density at stocking, maintaining an optimum level of nutrients, and providing other satisfactory environmental conditions like adequate water, it is possible to raise a fish crop of marketable size from the paddy fields by the time the paddy is harvested. Organized paddy cum fish culture is non-existent in India, although these have been tried in several places. The reasons for these are the increasing use of inorganic fertilizers and insecticides in paddy fields because of low water levels.

E) FROG CULTURE IN INDIA

Recently there has been an increasing demand from European countries for frog legs. Recognizing these demands from foreign markets, Indian entrepreneurs started exporting frog legs. To protect the natural resources and at the same time provide adequate raw material for a continued and steady export trade in frog legs, efforts are being made to culture different commercially important species of frogs. This effort is quite rewarding and, in addition frog cum fish culture is being attempted. Rana Tigrina and Rana Hexadactyla are the two most common species commercially exploited.

F) FIELD PROBLEMS IN INDIAN FISH CULTURE

A very serious menace, which has been the bane of fish farmers, is the aquatic weeds. Weeds, whether submerged, emergent or floating, are detrimental to fish production in fishery waters because the natural fertility will be used by the unwanted vegetation and to that extent fish yields will be reduced. Further, fishing is difficult in weed-choked waters. To obtain maximum yield it is necessary to clear the area of all weeds. Chemicals such as copper sulphate, ammonia and 2-4D compounds are found to be quite effective in controlling weeds. Mechanical devices like de-weeding machines have been found quite effective. In the design and construction of composite fish farms including hatcheries, nurseries, stocking ponds, etc. there are several engineering problems which require closer study as many of these are location specific.

WATER POLLUTION IMPACT ON AQUACULTURE

Water pollution as affects fish is of greater consequences these days, particularly in fresh waters. Verities of insecticides, and industrial effluents, in addition to domestic sewage, find their way in to many of the rivers and pose a major threat for fisheries. The magnitude of pollution varies with the size of the rivers, flow of water, etc. which determine their capacity for receiving these pollutants and dispersing them. To cite some examples, the paper mills located on the banks of the Ibb River in Odisha consume nearly 270 million liters of water per day. This drawl of water together with the discharge of high toxic effluents causes considerable harm to the fisheries for a stretch of 24 km downstream. The industrial discharge let in to the Kulu River from a large number of different industries located in Kalyan-Bombay sector pollute the water to such an extent that the river which was once well known for the ascent of Hilsa is now completely devoid of this fishery. Detailed investigations in respect of effluents of paper-pulp, textiles, tannery, sugar, distillery, coal washery, cycle rim and Vanaspati factories have shown that these effluents have adverse effects on fisheries. Similarly, effects of sewage have shown that in certain places a large part of the area of discharge has become a septic zone uninhabitated by fish. While sewage can cause extensive damage to fisheries, treated sewage can be used for fish culture as it functions as a fertilizer for fish farms. Although not prevalent at present, a potential source of pollution is the atomic reactor wastes. Marine pollution is assuming greater importance. Instances of large scale occurrences of tar balls along the west and east coast, oil spills, etc. are on the increase. Research on the various aspects of marine pollution is being carried out by more than one agency but these are limited to isolated and local problems. Different agencies are also carrying out periodical monitoring studies at selected centers. The seriousness of the awareness of the problem of pollution has led to introduction of bills for the prevention of water pollution for setting up of Central and State Prevention of Water Pollution Boards. To protected the environment as a whole and to maintain a healthy environment a separate department of Environment has been created in the Government of India. Environmental damage through accidents, such as an oil spill, may cause the closing of a fishery. As opposed to sudden natural disasters, other hazards build up over time. Outbreaks of disease and other threats to farmed fish in particular cause production losses. (Yadava & Ayyappan, 2011)

NUTRITIVE VALUE OF AQUACULTURE FOOD

Chemical compositions of the marine animals come fairly close to land animals, and principal constituents are water (66 to 84 percent), protein (15 to 24 percent), lipids (0.1 to 22 percent), and minerals (0.8 to 2 percent). Fish in the strict sense contains only minute quantities of sugar, and the amount of glycogen in the flesh of bony fishes is much lower than that of meat except in the case of certain mollusks which contain appreciable quantity of glycogen. (ICAR, 2011)

The amount of protein in fish is influenced by the fat and the water contents, and there is an inverse relationship between the fat and the protein contents of the edible part of the same fish. The fish proteins from different species seem to vary insignificantly and this applies to such major groups as bony fishes, cartilaginous fishes, and marine and fresh water fishes.(Prasad, 2003) Fish also contains a large number of minerals, only few of these have been studied in detail.

TABLE 4: COMPOSITIONS OF SEA FOOD EDIBLE PARTS

Sl. No.	Category Sea Food	Water (%)	Protein (%)	Lipid (%)	Ash (%)
1	Fat Fish	68.6	20	10	1.4
2	Semi-Fat Fish	77.2	19	2.5	1.3
3	Lean Fish	81.8	16.4	0.5	1.3
4	Crustaceans	76.0	17.8	2.1	2.1
5	Molluscs	81.0	13	1.5	1.6

Source: Indian Council of Agricultural Research (2006).

TABLE 5: MINERALS IN FISH FLESH (MG PER 100 GRAMS OF FLESH)

Sl. No.	Elements in Fish Flesh	Range	Average
1	Sulphur	100-300	200
2	Chlorine	60-250	100
3	Sodium	30-150	60
4	Potassium	250-500	400
5	Phosphorus	100-400	220
6	Calcium	5-200	30
7	Magnesium	10-60	30
8	Iron	0-475	1
9	Copper	0.04-0.6	0.25
10	Iodine	0.01-0.5	0.17
11	Fluorine	0.5-1.0	-
12	Manganese	0.01-0.05	0.025
13	Zinc	0.7-3.0	-
14	Lead	0.005-0.02	-

Source: Indian Council of Agricultural Research (2010)

Aqua-food is one of the best sources of animal protein, and is adequate as principal sources of dietary protein. Inadequate intake of proteins which fail to provide the essential amino-acids is a significant factor in human malnutrition. The recognition that fish has excellent nutritional properties makes it an important category of food. (Prasad, 2003), (Ayyappan & Krishnan, 2007)

MAL-EFFECTS OF HI-TECH FISH CULTURE

High tech aquaculture and animal food culture are made by antibiotic shots, being used at will to make shrimps bigger will be regulated soon. For the first time the National Policy for Containment of Antimicrobial Resistance has put a cap on how much antibiotics can be pumped in to sea food products, including shrimps and prawns or fish and fishery products. The policy has named common antibiotics like tetracycline, oxytetracycline, trimethroprim and oxolinic acid and clearly defined that it shall not exceed the prescribed tolerance limit. The use of over 20 antibiotics or pharmacologically active substances has been prohibited in sea food and poultry products. The measure is initiated to prevent such fish and meat to enter the food chain and lead to the emergence of antibiotic resistance in human who eat it.

HOUSEHOLD FISH CONSUMPTION PATTERN IN INDIA – A GROWING TREND

India's population in the last four censuses 1981, 1991, 2001.2011 are alarming with the rapid growth which is beyond control. In the next census we are likely to cross the China and will be recorded as the world's most populous country. Enormous problems are gripping our national growth, in which malnutrition and sustainable food strategies are going to be the prime concerns of the policy makers. Hi-tech productions in staple food and other nutritive animal proteins have raised the issues of infertility in future that we have experienced in the fatality of the 'Green Revolution' in north India. Organic means are the eco friendly solutions of the mankind without any doubts. Protein sources are likely to be the major food of the population in the near future. Shelter and settlements are diminishing the productive agriculture land in the country by converting in to the concrete jungles. Strategically, India has a large and sizeable sea and ocean resource to use in future for the food production ground of its huge population. No wonder we will be harvesting the stale food in the sea bed in near future through technology revolution.

However the fish consumption in India is asymmetrical. As per the 61st round of NSS (National Sample Survey) data on food consumption, at the national level only 28 percent households consume fish. This is high in eastern (65 percent) and southern (47 percent) regions, but low in western (20 percent) and northern (4 percent) India. The existing fish markets in the country command a value of INR 27,104 lakhs per month as per 2004-05 prices (annually about 813 million US$). About 600 Lakh families consume fish in India on a regular basis. At the national level monthly per capita consumption of fish is estimated at 204 grams. Among the major states, Kerala has the highest monthly per capita fish consumption 1.913 kg), followed by West Bengal (0.768 kg) and Assam (0.631 kg). In terms of value at the all India level the monthly per capita value of fish consumption is INR 8. 50. Among the states, Kerala again has the highest value (INR 47.78), followed by Assam (INR 41.88) and West Bengal (INR 39.12). (Yadava, 2007)

The aquaculture sector has showed an overwhelming growth of 468 percent during the last two decades and is presently contributing 21.6 percent by volume and 49.3 percent by value to the total fisheries products exports. Inland fisheries consistently recorded a growth of over 5 percent per annum over the period of 1991 – 2005. (Ayyappan & Krishnan, 2007)

According to NSSO estimates, a 'silent revolution' is under way and consumption of meat, eggs and fish has increased 100 percent. The size of Indian urban food market is estimated INR 350, 000 crores, the changing demographic profile of the country with a third of its population under 14 years of age, the rise in the number of working women and change in their lifestyle, besides the growing number of consumers with an outlook on value-for-money spending is expected to propel growth of the organized retail houses. The consumption pattern of the population exposed to a variety of fish and fish products is expected to change and lead to increased consumption levels in India too and thus impact the growth of inland fisheries, as happening in other parts of the world.

FUTURE SCOPE & PROSPECTS

The declaration by the Government of India of an Exclusive Economic Zone of 320 km in 1976 has added nearly 2 million square kms of water area for exploitation, management and conservation of the living and nonliving resources . The information of the location of the trawling grounds off the east coast is rather patchy. Good fishing grounds have been located off the coast of West Bengal, the mouth of River Mahanadi, Paradip, Puri, Visakhapatanam, the mouth of River Godavari, Pulicat, Ennore, Chennai, Sadras, Pondicherry, Cuddalore, Tranquebar, Nagapattinam, Point Calimere, Adirampattinam, Rameswaram, Pamban and Tuticorin. The continental shelf along the west coast is relatively broad and offers good grounds for trawling. On the other hand the slelf along the east coast is somewhat narrow except in certain regions where, especially near the openings of the major rivers, the shelf is not as suitable for trawling as that of west coast. Not only an adequate and strong infrastructure development but also an integrated and coordinated approach by the various national fisheries and allied research, training and developmental agencies in order to ensure the best use of the finances, man-power and other facilities to obtain the maximum sustainable yield. India undoubtedly will bank on to its marine resources and aquaculture for the future food and nutrition of the country. Scientific sustainable management of the environment aquaculture will sustain India's growth.

TABLE 6: STATE-WISE FISH PRODUCTION IN INDIA (2008-09) (P)

States & Union Territories	Marine Fish	Inland Fish	In 000' Tonnes (Total)
Andhra Pradesh	291159	961618	1252777
Arunachal Pradesh	0	2880	2880
Assam	0	206150	206150
Bihar	0	300650	300650
Goa	82950	2284	85234
Gujarat	623055	142847	765902
Jammu & Kashmir	0	19270	19270
Karnataka	218137	143005	361142
Kerala	583579	82574	666153
Madhya Pradesh	0	68466	68466
Maharashtra	395963	127138	523101
Manipur	0	18800	18800
Meghalaya	0	3959	3959
Mizoram	0	3760	3760
Nagaland	0	6175	6175
Odisha	135486	235973	371459
Punjab	0	104770	104770
Rajasthan	0	25700	25700
Sikkim	0	168	168
Tamil Nadu	365280	168885	534165
Tripura	0	36000	36000
Uttar Pradesh	0	349274	349274
West Bengal	186789	1323123	1509912
Andaman & N. Islands	32785	167	32952
Chandigarh	0	244	244
Dadra N. Haveli	0	48	48
Daman & Diu	14060	81	14141
Delhi	0	511	511
Lakshadweep	11586	0	11586
Pondicherry	36550	3306	39856
Chattisgarh	0	158699	158699
Uttrakhand	0	3163	3163
Jharkhand	0	75816	75816
Haryana	0	76285	76285
Himachal Pradesh	0	7793	7793
Total	**2977379**	**4659582**	**7636961**
P. = Provisional			

Source: Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, GOI, (2011).

TABLE 7: FISH PRODUCTION IN INDIA

Year	Marine	Inland	Total (Lakh Tonnes)
1950-51	5.34	2.18	7.52
1960-61	8.80	2.80	11.60
1970-71	10.86	6.70	17.46
1980-81	15.55	8.87	24.42
1990-91	23.00	15.36	38.36
2000-01	28.11	28.45	56.56
2001-02	28.30	31.26	59.56
2002-03	29.90	32.10	62.00
2003-04	29.41	34.58	63.99
2004-05	27.79	35.25	63.05
2005-06	28.16	37.56	65.72
2006-07	30.24	38.45	68.69
2007-08	29.19	42.07	71.26
2008-09 (P)	29.77	46.60	76.37
(P) Provisional			

Source: Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture, Government of India, (2011).

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A STUDY OF NON-FUND BASED ACTIVITES OF MPFC - WITH SPECIAL REFRENCE TO CAUSES OF FAILURE AND PROBLEMS

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ABSTRACT
Madhya Pradesh financial corporation is a premier financial institution set up in 1955 by government of Madhya Pradesh under the [SFCE] act 1957. It provide long term and medium financial assistance to industrial /non-industrial units in the state of Madhya Pradesh the corporation also extends other wide-ranging fund & non-fund based services to existing industrial units. The study is to find the reason of the failures of MPFC. In the study many reasons were found for the failure of MPFC they are late entry in the business, limited range of services offered, wrong positioning of source outlet, lack of expertise/ key person, No formal infrastructure and many others

KEYWORDS
MPFC, Non Fund Based Activities.

INTRODUCTION
Today the important problem of industries is finance because finance is a backbone of industries .when we think for establishes new industries or unit at that time first requirement is finance. long term financial assistance for various funds like appraisal for public issue ,underwriting of public/right issue, public issue management, project report preparation ,credit syndication, corporate advisory services is needed to the promoters which financed by MPFC earlier .the MPFC has started non-fund based activities. Here researcher want to find out the causes of failure of non fund based activities of MPFC. These causes will be helpful for another financial institution which is going to enter into non fund based activities or working as a merchant banking.

Madhya Pradesh financial corporation [MPFC] is a premier financial institution set up in 1955 by govt of Madhya Pradesh under the[SFCE] act 1957.it provide long term and medium financial assistance to industrial /non-industrial units in the state of Madhya Pradesh the corporation also extends other wide-ranging fund & non-fund based services to existing industrial units. The corporation has diversified its activities in the recent past. it has also obtained registration as category merchant banker with securities & exchange board of India7 has set up a separate merchant banking division in the name of MPFC capital market. The division looks after the entire set up merchant banking & financial services & some of the new fund based activities.

MERCHANT BANKING

An introduction non-fund based activities of MPFC is concern to merchant bank & MPFC had worked as merchant bank from 1994 to 2003. In the last quarter of the financial year 1994-95 a new division of MPFC was set up named as 'capital market division' Madhya Pradesh with its location. largest area abundant natural resources adequate power & conclusive industrial climate have great potential keeping this in mind need of the whole creed of promoters & entrepreneur & this led to the setting up of MPFC capital market. Duly registered as category -1merchant bank with SEBY

INDIAN FINANCIAL SYSTEM

The Indian financial system is a vast universe this universe is regulated and supervised by two govt. agencies under ministry of finance viz RBI, SEBI.all parts of the system are interconnected with one another and the jurisdiction of the central bank and the capital market regulate overlap in some fields of Indian financial system broadly classified from the point of view of regulates as:-

RBI	SEBI
Foreign exchange market	primary market
Commercial bank	secondary market
Financial institution	derivative market
Primary dealer	

Commercial banks include the public sector banks, Private Banks & foreign banks. The RBI under the banking regulation act and negotiable instruments act regulate the commercial banks. financial institution may be of all India level like IDBI, IFCI, ICICI, NABARD or secretarial financial institution like EXIM, TFCIL et Foreign exchange market c.term loan financing receiving a boost after the merge of refinance corporation of India limited with IDBI, IFCI, was the first term lending institution to be set up IDBI is the apex development financial institution set up to provide funds for the rapid industrialization in India.

The participants in the foreign exchange market includes banks financial institution and are regulated by the RBI primary dealers are the registered participants of the wholesale debt market they bid at auction for government department. Treasury bills which are then retailed to banks & finance institution, who invest in these papers to maintain their statutory liquidity ratio[SLR] SEBI was set up as an autonomous regulatory authority by the govt of India in 1988.to protect the interest of investors in securities & to promote the development of and to regulate the security market and for matters connected there with or incidental there to. It is empowered by two acts namely, the SEBI act 1992 & the securities contract [regulation] act 1956 to perform the function of protecting investors right & regulating the capital markets.

SECURITIES MARKETS IN INDIA: AN OVERVIEW

The process of economic references & liberalization was set in motion in the mid eighties & its pace was accerallted in 1991.when the economy suffered severally from a precariously low foreign exchange reserve, burgeoning imbalance on the external account declining industrial productivity galloping inflation 7 a rising fiscal deficit. The economic reforms, being an integrated process included deregulation of industry. liberalization on foreign investment, regime, restructuring & liberalization of trade, exchange rate and tax policies, partial disinvestment of government holding in public sector companies & financial sector reforms. The reforms in the real sectors such as trade, industry, and fiscal policy were initiated first in order to create the necessary macroeconomic stability for launching financial sector reforms which sought to improve the functioning of banking & financial institution [FIS] and strengthen money & capital markets including securities market.

The securities market reforms was based on the recommendation of the **pherwani Dave, nanddevi,& narsimha committee & the standing high level committee** on capital market & included measure for its liberalization, regulation & development specifically these included.

Repeal of the capital issues[control] act 1974 through which govt used to expropriate and allocate resources from capital market for favored uses enactment of the securities & exchange board of India [SEBI]to regulate & promote development of securities market, setting up of NSE in 1993,passing of the depositaries act 1996 to provide for the maintenance and transfer of ownership of securities in book entry form, amendments to the securities contracts [regulation]act 1956[SCRA]in 1999 provide for the introduction of futures & option, other measure included free pricing of securities ,investor protection measure ,use of information technology, dematerialization of securities ,improvement trading practices, evolution of inefficient & transparent regulatory framework, emergency of several innovative financial product & services etc. These reforms are aimed at creating efficient & competitive securities market subject to effective regulation by SEBI which would ensure investor protection.

The corporate securities market in India elates banks to the 18 century when the securities of the east India company were traded in Mumbai & kolkotta. The brokers used to gather under a banyan tree in Mumbai & under a neem tree in kolkotta for the purpose however the beginning came in the 1850, with the introduction of joint stock companies with limited liability. The 1860 witnessed feverish dealing in securities & reckless speculation this brought brokers in Bombay together in July 1875 to form the first formally organized stock exchange in the country viz the stock exchange Mumbai, Ahmedabad, stock exchange in 1854 &22 other followed in the 20 century.

OBJECTIVES

To study the causes of failure of non fund based activities of MPFC.
To find the problems faced by MPFC

RESEARCH METHOD

The research based on secondary data. The researcher collected the data from the MPFC employee, regional manager and manager of MPFC. The secondary data was collected from the books of merchant banking & ATM directory, magazines & published accounts of MPFC.

NON –FUND BASED ACTIVITIES OF MPFC

1. Appraisal for public issue.
2. Underwriting in public/rights issue.
3. Public issue management.
4. Project report preparation.
5. Credit syndicate.
6. Corporate advisory service.

APPRAISAL FOR PUBLIC ISSUE:- The project appraisal of the company going for public issue is taken up by well qualified and professionally competent officers. the corporation has been in provided financing for more than 4 decades and has developed relevant expertise backed, with rich data base to take up project appraisal of public issue proposal.

UNDERWRITING OF PUBLIC/RIGHTS ISSUE:- The corporation undertakes underwriting of shares and debentures for public/right issue. on the strength of the company. Prospect of the issue and the prevailing state of the capital market. The corporation also assisted in arranging underwriting commitments both from institutional and private underwriters.

PUBLIC ISSUE MANAGEMENT:- The corporation provides services of issue management acting as lead manager, co-lead managers, advisors to the issue etc. it can also assist in public issue subscription through its wide network of brokers, sub brokers and other market ,intermediaries built up over the years and its zonal and branch offices spread all over the state.

PROJECT REPORT PREPARATION:- the corporation also provides services for project report preparation for technology oriented projects, projects for innovative items, based on latest information of technology and market survey of the products. the project contains valuable information from the data bank prepared by professionally qualified managers.

CREDIT SYNDICATION:- The Corporation provides services for credit syndication with other financial institution/bank/finance companies in respect of term loan/lease finance/working capital etc.

CORPORATE ADVISORY SERVICES:- The corporation provides corporate advisory services including management systems, projects, services, firming, consortium, tie ups, technical assistance etc.

CORPORATE ADVISORY SERVICES:- The corporation provides corporate advisory including management systems, projects, services, firming, consortium, tie ups, technical assistance etc.

TABLE 1: CASES AND FEES RECEIVED OF NON FUND BASED ACTIVITIES OF MPFC

S. No	Non fund Based activities	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	Total Cases and fees received
1	Public Issue appraisal No of Cases	31	19	7	-	-	-	57
	Fees received	16	12.53	9	-	-	-	37.53
2	Underwriting of public issue No. of cases	2	6	-	-	-	-	8
	Fees received	0.26	1.57	-	-	-	-	1.83
3	Public Issue management No. of Cases	-	11	7	2	1	-	21
	Fees Received	-	5.00	4.50	1.75	0.50	-	11.75
Total Fees		16.26	19.1	13.5	1.75	0.50	-	51.17

Source: Annual Report of MPFC

In the year 1995, MPFC started the work of non fund based activities and this year MPFC earned total Rs 16.26 lakhs through non fund activities. In the comparison of 1995, in year 1996 MPFC fee rate is increased due to this reason of AMPFC fees received percentage increased by 17.46% in the comparison of year 1995. In the comparison of 1996, in year 1997, fees received percentage is reduced by 29.32%. In the comparison of year 1997, in the year 1998 fees received percentage is reduced by 87.04% that means fees received percentage is reducing continuously.

In the comparison of year 1998, in the year 1999, fees received percentage is reduced by 71.48%.

In all five years [from 1995-1999]MPFC has completed 21 cases of non fund based activities and MPFC earned total 51.11 lakhs from non fund based activities .average earning per year of MPFC is Rs 2.43 lakh .MPFC has not done any work in other non fund based activities as project report preparation ,credit syndication, and corporation advisory services. This may be due to many reasons they are

EFFECTS OF NEW ECONOMIC POLICY:

It is well known that new economic policy launched in July 1991 which was containing main roll of liberalization of Indian economy. This new economic policy had some adverse effect which came in existence by middle of decade of 90s foreign investment was invited by the Indian government but investors did not invested there fund in any manner. First they did have a research of Indian economy at the level of infrastructure. After their investigation these investors could choose profit center. Off course these profit centers were the advanced states of India and unfortunately state of Madhya Pradesh found to be a backward state. Naturally big units of foreign investment did not encourage in Madhya Pradesh. So how it might have possible that MPFC could have business of underwriting or public issue management of such big investors? Secondly policy of liberalization produced a bottle neck competition among the Indian industries. Marginal industries could not survive and the industries which were left in the scenario were not in a comfortable position by virtue of a tough competition. in a such tough condition fund generation by floating share in the market was not a usual trend. Therefore many cases of non fund based activities could not emerge as sound business of MPFC.

INTERNATIONAL SLACK

Decade of 90s was a crucial time for world economy especially for the underdeveloped countries like India's world wide slack effecting economy. In such situation these country who were the big borrower of World Bank, Asian bank and other international financing bodies were in a big crunch. Their foreign debts were going up; their liabilities were getting higher and higher then their gross productivity. India was not the exception of such unpleasant situation .small scale sector was the main effected part of the Indian economy. Naturally it was very difficult for the industries to go through capital market activities and to float their public issues in the market resulted a poor play of MPFC in the non fund based activities.

HARSHAD MEHTA SCANDAL

One thing is very important that MPFC has started its non fund based activities in 1994-95.when harshad Mehta scandal have been disclosed and Indian share market loosing its reputations and off course attraction too. Before discloser of this scheme, Indian share bazaar was not just more then speculation markets of the industries was entering in the capital market and were managing their funds to the extant of public issues. Public without assessing the actual position of subscriber, investing fund with an intention of overnight millionaire. After discloser of harshad Mehta scandle, suddenly share market got deteriorated. It was no more field of public interest. In such downfall situation MPFC started its capital market division which could not remain unaffected with this down fall. it resulted non growth of non fund based activities.

NON PROFESSIONAL ATTITUDE OF MPFC:

Capital market and its related activities were a new concept for the MPFC. when in 1994-95,capital market divison started working it was expected that this divison would have services of some qualified personals of capital market ,but it was an unforeseen aspect that MPFC capital market did not have services of well knowledgeable persons of capital market .no doubt, the officers who were handling the capital market division were qualified but steel they were the student of capital market activities not the experienced professionals. They did not have knowledge of public issue management of public issue appraisals. Therefore, this division of such importance could not root in the hearts of capital market users.

PROBLEMS:

The corporation took an initiated in the year 1994-95 and started non-fund based activities. A little beat success was however achieved in the initial face but no significant business could returned in analysis of the factual position was carried out in the following results can be enumerated to which the limited success can be attributed to:-

WRONG TIMING OR DELAYED ENTRY IN THE BUSINESS:-

The corporation entered into non fund based activities in the business at a very wrong time. in fact, the capital market boom was over by the year 1994-95 which was on the top in the year 91-92.thus in the dying face the corporation made an entry and could attract the left over companies only.

TABLE 2: ENTRY OF VARIOUS INSTITUTIONS IN NON FUND BASED ACTIVITIES

S. No.	Name of the Institute	Date of Entry
1	Bank of Baroda	1989-90
2	ICICI	1989-90
3	Industrial finance corporation of India	1989-90
4	DSP Financial Consultant LTD	1989-90
5	Kotak Mahindra Consultant LTD	1989-90
6	PNB Capital service LTD	1989-90
7	SBI Capital Market	1989-90
8	Indian Overseas Bank	1989-90
9	IDBI	1992-93
10	MPFC	1994-95

Source: Merchant Banking 2002

If the MPFC had entered in the non fund based activities in year 1989-90, then MPFC could have done great job. Due to this reason, MPFC non fund base activities work is comparatively less than other institutions.

WRONG POSITIONING OF SOURCE OUTLET:-

The corporation set up its capital market elision in the existing building itself on the contrary what should it had done that an independent company should have been set up preferably having its marketing window at Mumbai and other prominent places. As a result the business remained restricted to Indore city only obviously no major business was to come.

TABLE 3: OFFICES OF FINANCIAL INSTITUTIONS REGARDING NON FUND BASED ACTIVITIES

S. No.	Name of the Institute	Number of Offices
1	Bank of Baroda	9
2	ICICI	4
3	Industrial Finance Corporation of India	14
4	DSP Financial Consultant LTD	5
5	Kotak Mahindra Consultant LTD	9
6	PNB Capital service LTD	7
7	SBI Capital Market	7
8	Indian Overseas Bank	6
9	IDBI	10
10	MPFC	1

Source: Merchant Banking 2002

NO FORMAL INFRASTRUCTURE:

As mentioned earlier, no separate outfit was established similarly the corporation did not provide any business. Specific infrastructure for the activity in absence of which poor services had to be offered resulted into poor response from the market.

PROFESSIONAL MANPOWER:

The non fund based activities its only dependent upon the quality of the person offering service the corporation did not attempt to recruit, select and choose skilled man power the service business. This shortcoming resulted into poor response from the market.

THE TERM LENDING INSTITUTION IMAGE OF THE CORPORATION:

The corporation has been providing term loans for last many years. The image established by the corporation in the process affected the non fund based activities also. Many clients distance themselves only due to this factor.

STIFF COMPETITION IN THE FIELD:

When the corporation entered in this field the leading merchant bankers were already well established in the field. The corporation had to face the stiff competition from them and either much discounted rates and to be offered or 2 and 3 grade customers come to avail this service.

LIMITED RANGE OF SERVICES OF OFFERED:

The other non-fund based service provider offer a range of services which can be mentioned as under:-

1. Advisory services
2. company formation

3. legal and other contractual requirement
4. project identifications and feasibility reports
5. project implementation
6. marketing tie-up
7. capital market services
8. public issue management
9. underwriting support
10. register service
11. Stock market support.

As compared to the above range, or activities, the corporation offered only a few of them. Such as project appraisal and underwriting and issue management. This was a major reason of limited success.

NO AGGRESSIVE MARKETING STUDY:

As compared to other financial institution, MPFC did not spend money on marketing and advertisement therefore the response remained limited to personal court only.

POOR FOLLOW UP:

In the service business, it is the relationship with the customer which counts when a set up provide services to the customer the satisfied customer often comes back to the service provider and the service provider has to follow up the customer. In case of MPFC, there has been no repetition of the customers and this was a major drawback.

THE SERVICE ORGANIZATION HAS TO UPGRADE THE SKILL AND MODIFY THE SET UP:

For the success of any service outlet, the institution has to venture into new areas for example with the fall of capital market, many merchant bankers entered into debt market services and with stagnation in debt market, they started taking up assignment for gilt market, government security market. Such a diversification of non fund based activities could not take place in MPFC.

NO. OF KEYS:

The MPFC has only one no. of keys. But another institution have many no. of keys, this factor is also affect the business of non fund based activities .number of keys means number of professional manpower. In MPFC only one person, see all the activities of non fund based activities but in other institution, every non fund based services is distributed in different division or sections and different persons managed these services. But in MPFC only one person manages all the services of non fund based activities and in other institution, on fund based activities managed by highly qualified and experienced person.

TABLE 4: NUMBER OF KEY PERSONS OF VARIOUS INSTITUTIONS REGARDING NON FUND BASED ACTIVITIES

S. No.	Name of the Institute	No. of key persons
1	Bank of Baroda	10
2	ICICI	23
3	Industrial finance corporation of India	8
4	DSP Financial Consultant LTD	18
5	Kotak Mahindra Consultant LTD	41
6	PNB Capital service LTD	17
7	SBI Capital Market	48
8	Indian Overseas Bank	05
9	IDBI	20
10	MPFC	1

*Till 2003

CONCLUSION

The corporation should set up its capital market at corporate identifiable location. As a main business, MPFC should open windows in most prominent places of country. The MPFC should improve its formal infrastructure. The non fund based activities dependent upon the quality of the person offering service. So MPFC should select skilled man power. The corporation should come out from the image of lending institution. The corporation should contact to its clients for the work of non fund base activities also. The corporation employee's behavior is not well towards customers and normal person. The corporation should arrange some special training camp to change the behavior of employees. The corporation employee's behavior plays very vast role in non fund based activities. Because non fund based activities is totally based on service, well response and behavior with customer and normal person, this behavior will improve the position of corporation.

The Service range of none fund based activities should be increased from eight type of services because client want all types of services at a particular place. So MPFC should start all types of services of non fund based activities. The corporation should do marketing of non fund based activities. The corporation should organize conference, seminars, participation in exhibition and should also sponsor economic events. The MPFC should start some profitable scheme related to non fund based activities which can attract the customers or clients and MPFC should provide special gift to those customers which are taking services of non fund based activities. The corporation should have a live contact with the existing and past customers.

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CRM IN BANKING: PERSPECTIVES AND INSIGHTS FROM INDIAN RURAL CUSTOMERS

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ABSTRACT
In today's competitive era Customer relationship management is an effective weapon for the business organizations to sustain their position and to survive in the market. The goal of this study is to identify the major constructs of CRM from the rural customer's point of view specifically catering to Indian banking sector. 41 rural banking customers who were attending a training programme (NAREGA) were interviewed and asked for the major issues they are having while dealing with their bank followed by data collection through schedule and a usable sample size of 250 was obtained. The factor analysis is performed to identify the major CRM constructs based on which authors have proposed a framework, which is validated through confirmatory factor analysis. One of the major findings of this study clearly indicates that Indian banks are not at all concerned with proper implementation of CRM specifically in rural areas. Rural customers represent a major chunk of Indian banking customers but still the banks are not giving proper attention to them. Academically even though there is a vast literature availability specifically catering to Indian banking sector there is a lack of studies pertaining to rural customer's point of view. The present study bridges this gap in the literature. Managerially it provides a comprehensive CRM framework which can be implemented in rural banks for identifying and availing better opportunities as well as for the economic development as a whole.

KEYWORDS
Customer relationship management, Factor analysis, rural customers, Indian banking, framework

INTRODUCTION
Many positive developments have been seen in the Indian banking sector in the past decade. This sector is growing at a faster pace than ever before, is expected to reach top league in coming years, according to the international consultant firm McKinsey & Company, in its research report. The banking index has grown at a tremendous rate at an annual compounded rate of more than 51% since April, 2001. As on 31st March, 2010 there were 167 commercial banks operating in India out of which 163 are scheduled commercial banks and 4 were non-scheduled commercial banks. Out of 163 scheduled commercial banks 82 are regional rural banks (RBI Report, 2011). Apart from the public sector/nationalized banks there are private and foreign players which are contributing a major chunk in Indian banking sector. The share of private sector banks increases to 30 per cent of total sector assets, from current levels of 18 per cent, while that of foreign banks increases to over 12 per cent of total assets. Foreign banks also grow faster at 30 per cent due to a relaxation of some regulations. The share of banking sector value adds to GDP increases to over 4.7 per cent. In the current Indian banking scenario of intense competition, deregulation and the availability of internet, the customers of have a diversified array of banking and financial products and services to choose from.
Indian rural banking sector is among i.e. RRB (Regional Rural Banks) contributes only 3 percent of the market of Indian banks (Kamath, 2007). Indian banks are realizing the importance of implementing customer relationship management (CRM) for attracting and retaining their customers.

LITERATURE REVIEW

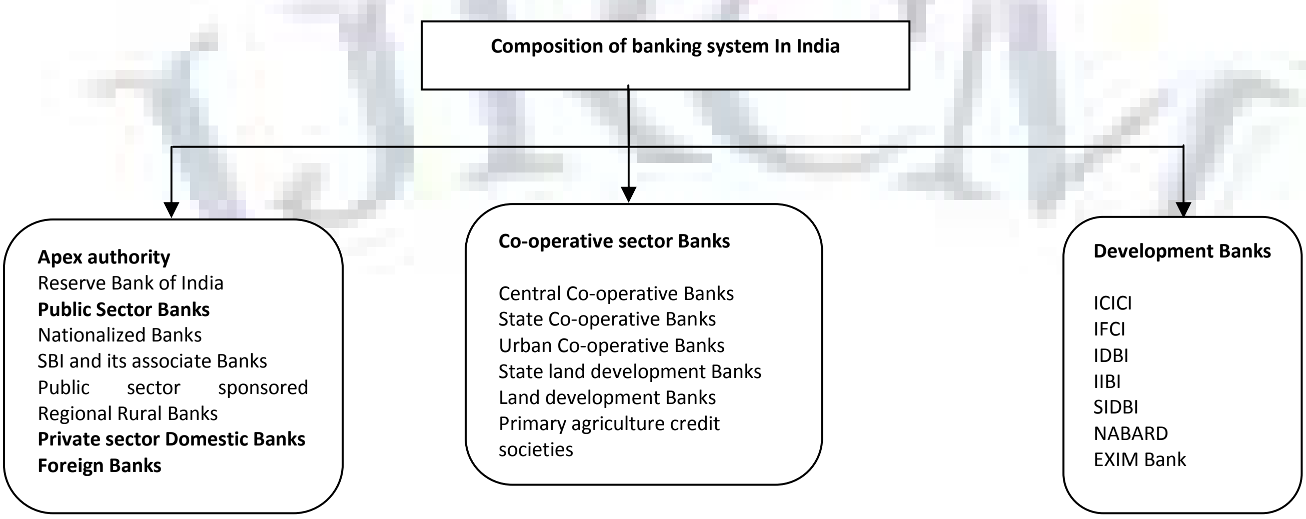


FIGURE 1: COMPOSITION OF BANKING SYSTEM IN INDIA (KAMAT, 2007)

The structure of Indian banking sector:

The Reserve Bank of India (RBI) is the apex authority and called as central bank of the country it regulates the working and operations of other banks, manages money supply and discharges other countless responsibilities that are generally associated with a central bank. Indian banking system comprises of commercial and cooperative banks, out of which the commercial banks account for more than 90 percent of the assets of the banking system. There are two types of categories within the commercial banks. These are Schedule commercial banks (which are listed in RBI Act, 1934 under Schedule II) and Non-scheduled commercial banks.

Schedule commercial banks have been further categorised into three fold classification depending upon the ownership pattern:

(1) Public Sector Banks which includes State Bank of India (SBI) and its associate banks, nationalized banks (NB), and other Public Sector Banks.
(2) Private sector banks consists of private domestic banks (which can further be classified as old private banks that are in business prior to 1995, and private banks that were established after 1995) and foreign banks.
(3) Others comprising regional rural banks (RRBs) and local area banks.

A fairly developed Indian commercial banking system is in existence since the time of independence in 1947. The Reserve Bank of India (RBI) was established in 1935. While the RBI became a state-owned institution from 1 January 1949, the Banking Regulation Act (BRA) was enacted in 1949, providing a framework for regulation and supervision of commercial banking activity. The banks that were in the private sector were nationalized in 1969 for social and political reasons. No major reforms were put in place until the 1980s, when the actual liberalization process of Indian public sector banks started by giving them more autonomy. Greater competition was introduced into the banking system by permitting the entry of private sector banks, liberal licensing of more branches by foreign banks, and the entry of new foreign banks. With the development of a multi-institutional structure in the financial sector, the emphasis is on efficiency through competition, irrespective of ownership.

Since non-bank intermediation has increased, banks have had to improve their efficiency to ensure their survival. The recent studies on banking industry specifically catering to India have concentrated only on the efficiency measurement of banks in terms of utilization of resources (i.e. operating efficiency), but the main aspects of effectiveness of banks in achieving their pre-determined policy objectives is completely ignored (Debnath and Shankar, 2008; Sanjeev, 2006; Sensarma, 2006; Ram Mohan and Ray, 2004; Shanmugam and Das, 2004; Kumbhakar and Sarkar, 2003; Sathye, 2003; Mukherjee *et al.*, 2002; Saha and Ravisankar, 2000;Bhattacharyya *et al.*, 1997; Das, 1997). As indicated from the work of prominent authors it can be safely concluded that the overall performance of the organization appraisal should take into consideration both the criteria i.e. resource utilization efficiency and effectiveness in achieving pre decided goals (Asmild *et al.*, 2007; Mouzas, 2006). Many of the researchers have already validated the positive associations between performance outcomes and levels of market orientation (e.g. Narver and Slater, 1990; Ruekert, 1992; Jaworski and Kohli, 1993; Kumar *et al.*, 1998). However some of the researchers have found that performance is related to market orientation only under moderate environmental conditions (Greenley, 1995; Harris, 2000).As identified by Megicks *et al.*, 2005, the institutional characteristics along with the behaviour of the managers are the major factors influencing customer satisfaction, Service innovation; market orientation and outreach performance within RRBs. As mentioned (by e.g. Liedholm and Mead, 1999; Ramola and Mahajan, 1996; Fisher and Mahajan, 1997) lack of credit and availability of working capital are the major reasons for rural sector business failure.

RRBs in India are an integral component of the microfinance sector, which is a combination of a number of institutions that utilise different “self-financing” methods for poverty alleviation. Indian RRBs mainly have two major goals of profitability and growth by their ability in uniting the major agendas namely social and economic while at the same time providing ample opportunities for Indian rural population to get benefitted through their own commercial endeavours. As validated by the previous researchers that the main pillar of organizational success is the market-led approach which has triggered the necessity for investing the nature of market orientation (Siguaw and Diamantopoulos, 1995; Deshpande *et al.*, 1993; Webster, 1992; Shapiro, 1988), the barriers and antecedents faced while implementation (Harris, 2000; Avlonitis and Gounaris, 1999; Slater and Narver, 1995; Felton, 1959; Ennew *et al.*, 1993), its key components(Kumar *et al.,* 1998; Kohli and Jaworski, 1990) and the relationship of performance outcomes with it (Harris, 2001; Pelham, 1999; Doyle and Wong, 1998; Greenley, 1995; Diamantopoulos and Hart, 1993; Hooley *et al.*, 1990).

The terms relationship marketing and customer relationship management are almost used interchangeably in many of the previous research papers. Still there exist differences between the concepts of *relationship marketing* and *customer relationship management* as highlighted by Sin et al., 2005. Various prominent authors (Berry et al., 1983; Gupta, 1983; Gummenson 1990; Wehrli and Juettner, 1994; Dion et al., 1995; Gronroos 1996; Dawar et al., 1996; Holm et al., 1996; Conway, 1996) have identified different defining constructs in the area of relationship marketing pertaining to different industrial and national contexts. But there is no general consensus on what actually constitutes relationship marketing. In fact, many scholars have claimed that the precise meaning of relationship marketing is not always clear in the literature (Nevin, 1995; Parvatiyar and Sheth, 2001). In fact relationship marketing as an emerging discipline is in need of further theoretical development (Gummesson, 2002).

There is very little research which has been done on defining constructs of CRM specifically catering to Indian rural banking. This paper aims to address this issue. The paper is organized as; firstly there is an overview of the Indian banking sector followed by the role of banking sector in the upliftment of Indian rural people. A snapshot the banking specific defining constructs is given in the annexure. The methodology consists of data collection through depth interviews as well as through the schedule. The conclusion and future research lines are given at the end.

METHODOLOGY

For this research, we initially developed scale items for identifying CRM constructs from relevant literature review. A pilot survey of the questionnaire was performed to assess the content validity of measurement scales. Content validity can be evaluated by a panel of persons, sometimes experts, who judge whether a scale logically appears to accurately reflect what it purports to measure (Zikmund, 1991). The finalized survey questionnaire consists of two parts, first part is related to identify the demographic characteristics of the respondents, and second part consists of 52 questions which are related to CRM constructs. 52 questionnaire items, measuring the respondents’ perceptions on specific characteristics of banking services and overall banking services quality.

The respondents were requested to select the response that best indicated their experiences or perceptions on each statement, using a Likert-type five point scale where 1= Strongly disagree,2= Disagree,3= No opinion,4= Agree,5= Strongly agree.

The informants of this study were the government employees who were attending the training programme NAREGA. The suitability of these respondents was deemed to be appropriate for the study because all of them belong to the rural areas of Madhya Pradesh. A total of 250 sample size was obtained. Furthermore the reliability analysis, sampling adequacy analysis, factor analysis and confirmatory factor analysis are done by using SPSS and AMOS software.

RESULTS

The major findings of the depth interview:

TABLE 1: DEMOGRAPHIC PROFILE OF THE RESPONDENTS (DEPTH INTERVIEW)

S.No.	Demographic Criteria	%
1	**Age**	
	Between 18 -30 years	73.09%
	Between 30-45 years	16.83%
	Greater than 45 years	10.08%
2	**Education Level**	
	Undergraduate	29.4%
	Graduate	68.5%
	Post Graduate	2.1%
3	**Gender**	
	Male	72.27%
	Female	27.73%
4	**Marital Status**	
	Single	95.03%
	Married	4.97%
5	**Association with the bank**	
	Less than 6 Months Between	7.03%
	6-12 Months	87.09%
	More than 12 Months	5.88%

- Monthly Salary: 3200/- Rs.
- Designation: Gram Sahayak
- Facilities: ATM, Passbook, Cheque book
- Banks: SBI, Punjab National Bank, ICICI, UCO Bank, Chambal Chatriya Gramin Bank.

ISSUES:

- Personalized services like loan on low interest rate(for farmers)
- Timely services
- Basic amenities (e.g. parking facilities, Drinking water, electricity etc.)
- For cash payment more cashiers should be there(Understaffing),
- Face problems due to server failure
- Cheque collection problems(No posting for 8 days)
- Behaviour of the employees including security personnel
- Passbook and Cheque book issue is a very lengthy process even the employees ask for money for the same.
- Lengthy queue in banks
- Kisan credit card and loan mangers take commission through some intermediary (Broker).
- 20 days for a/c opening (at least 20 times you have to go, even they don't give the a/c opening forms)
- Rural bank branches don't carry sufficient money even in case of emergency they cant pay even 1 lakh rupees.
- Rural people don't know the proper use of ATM. (e.g. fill 25k for withdraw at a time).
- No proper complaint redressal mechanism.
- Bank managers are not competent enough even sometimes they use dirty words.
- Banking space is not sufficient
- No separate queue for ladies and senior citizens
- From one a/c one cheque book from bank branch and other from head office (money fraud)
- Banks should open more and more bank a/c and put camps frequently.
- Even branch should have on ATM otherwise no use so for reducing the queue length.
- They are ready to open the a/c with the nearest bank branch.
- There is only one bank at block level (SBI).
- Labor payment is a major issue that Gram Sahayak is facing (for one week payment there is a delay of more than 4 weeks), that's why labor doesn't want to work.
- The bank office is in rented building.
- Sometimes the people love to wait full day from 9 am to 5 pm for payment outside the banks.
- Employees of the bank even don't give the information if asked any.
- Lot of opportunities even for private banks.
- Location should be convenient.
- Opening the a/c of labor is very hard if should be easy and comfortable for labor on the basis of job card they should open the a/c.
- Printer failure, no passbook updating even for 6 months.
- ATM is functional only for 15 days in a month.
- Bank staff doesn't have time to tell the information.
- Minimum 1 hour waiting time for any transaction.
- New employees are having less experience.
- On village level there should be a bank currently it is on block level which is 20-40 km for from the village.
- In RRBC (Chambal chetriya Gramin bank), only 2 people are there so generally customer don't want to open the a/c there.
- Even bank people don't want to give the information to a/c holder regarding their bank balance.
- Before passbook they got the ATM without code.
- On the basis of the facilities offered customers open their a/c some of them don't mind whether it is SBI or ICICI.
- Staff mentality of bank people they say to customers you have the a/c in SBI, that's why you have to face the problem.
- No timely inform about any policy and other relevant information.
- More branches should be them according to population currently for 6 laks people only 2 banks.
- Even 5-10 people can't stand at a time in the queue.
- In some branches except from the branch manager rest of the staff is careless.
- No token system at rural level in SBI.

- Non-availability of a/c opening forms even employees suggests the rural customers to open a/c in post office.
- No other bank provides the services like SBI.
- Preference for SBI because of Indian image.
- SBI insurance they are ready to take.

INSURANCE:
General Insurance: Bajaj Allianz General Insurance, National Insurance Cooperation
Life Insurance: LIC
ISSUES:

- Claim payment
- Timely payment
- The insurance providers are hiding the actual information.

No renewal of vehicle insurance only got it at the time of purchasing.

Approximate 90% of the respondents don't have the insurance of any type even they don't have any kind of information related to insurance. Followed by the depth interviews of 41 respondents attending the training programme NAREGA, the questionnaire was used as a schedule and the researcher has collected 250 responses. Further to this the factor analysis is performed to identify the important factors contributing towards the Customer relationship management in rural banking.

Followed by the depth interview the responses were collected through schedule from the rural people. A total of 250 respondents sample from rural people has been collected.

The demographic profile of the respondents is given below:

TABLE 2: DEMOGRAPHIC PROFILE OF THE RESPONDENTS (FIELD SURVEY)

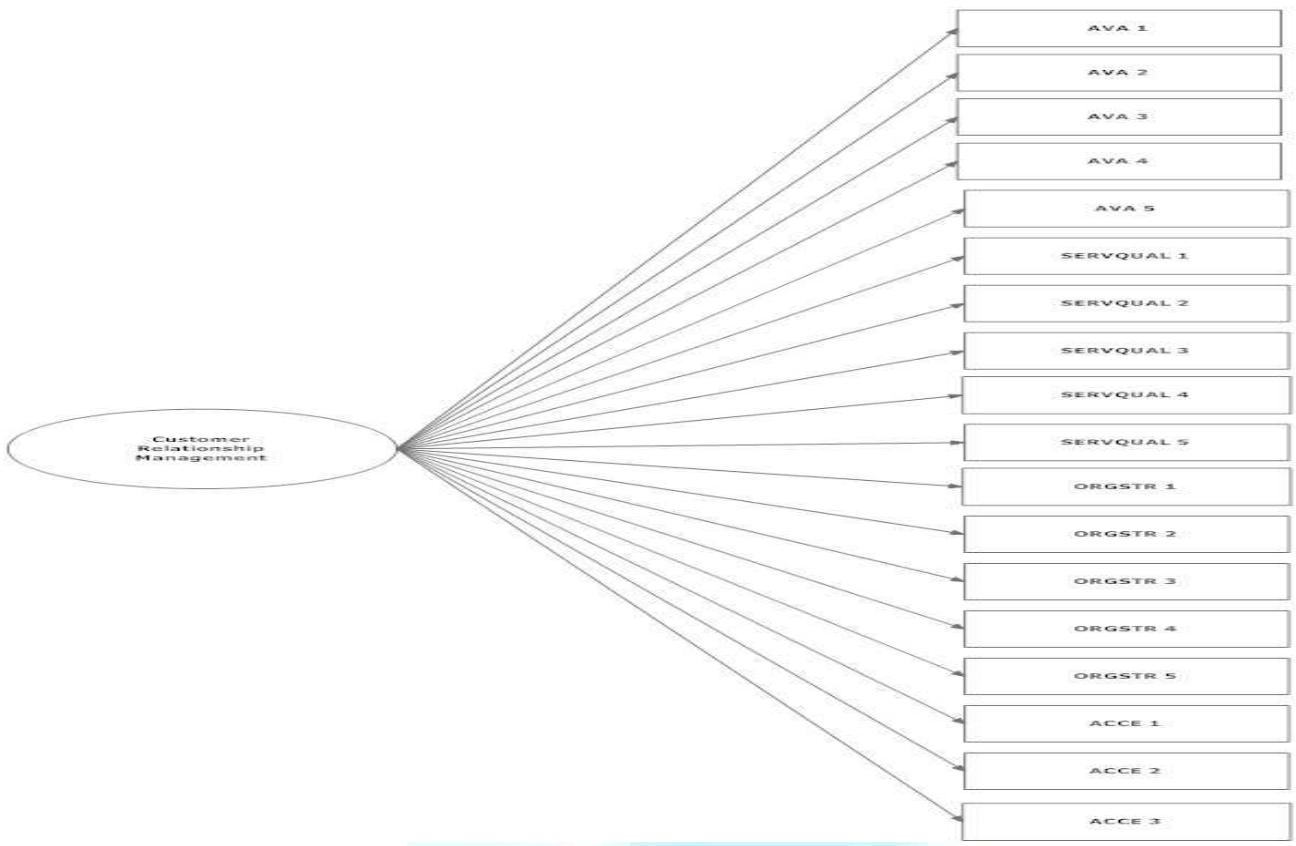
S.No.	Demographic Criteria	%
1.	**Age**	
	Between 18 -30 years	53.79%
	Between 30-45 years	36.13%
	Greater than 45 years	10.08%
2.	**Education Level**	
	Undergraduate	29.4%
	Graduate	68.5%
	Post Graduate	2.1%
3.	**Gender**	
	Male	73.27%
	Female	26.73%
4.	**Marital Status**	
	Single	9.03%
	Married	90.97%
5.	**Association with the bank**	
	Less than 6 Months Between	30.23%
	6-12 Months	46.61%
	More than 12 Months	23.16%
6.	**Monthly Salary**	3200/- Rs.
7.	**Designation**	Gram Sahayak

TABLE 3: ROTATED COMPONENT MATRIX

Variables		Tangibles	Personalization	Availability	Assurance
TAN1	My bank has sufficient physical area to serve its customers.	0.673			
TAN2	The drinking water facility is available in my bank.	0.731			
TAN3	The parking facility is there outside the bank.	0.537			
TAN4	My bank has good arrangement for electricity.	0.631			
TAN5	There is no or minimal waiting time in getting the banking services of my bank.	0.763			
PER1	My bank offers personalized services to its customers.		0.807		
PER2	My bank provides the loan at nominal interest rate to the farmers.		0.513		
PER3	My bank take cares of the needs of its customers on a one to one basis.		0.643		
PER4	My bank offers tailor made financial products especially for rural people.		0.578		
AVA1	My bank has a well established technological infrastructure.			0.529	
AVA2	My bank has sufficient bank staff to serve its customers.			0.738	
AVA3	Mu bank has customer service personnel especially for customer queries & complaints.			0.661	
AVA4	My bank has its branches at conveniently accessible locations.			0.597	
AVA5	The services of my bank are available round the clock.			0.497	
ASS1	The employees of my bank are competent.				0.769
ASS2	In case of problems my bank never leaves me without resolving it.				0.579
ASS3	I can rely on my bank in critical situations.				0.893
ASS4	The employees of my bank have sufficient authority to handle the banking issues.				0.659
ASS5	The employees of my bank are friendly and courteous to me.				0.527

The factor analysis was performed using SPSS 16.0v to identify the major factors contributing towards CRM in Indian rural banking sector. The reliability of the data was checked through the cronbach α value which is found as 0.834 which is quite acceptable (Nanully, 1978). Further to this the sampling adequacy was checked using KMO test and the value was found .588 which is quite acceptable for carrying out factor analysis. Further to the exploratory factor analysis based on the extracted factors two models have been proposed. In first model customer relationship management is considered as a uni-dimensional construct and in second model it is considered as a multi-dimensional construct. Then the confirmatory factor analysis is performed using AMOS, the comparison statistics for these two models are shown in the table below.

FIGURE 2: ONE FACTOR MODEL

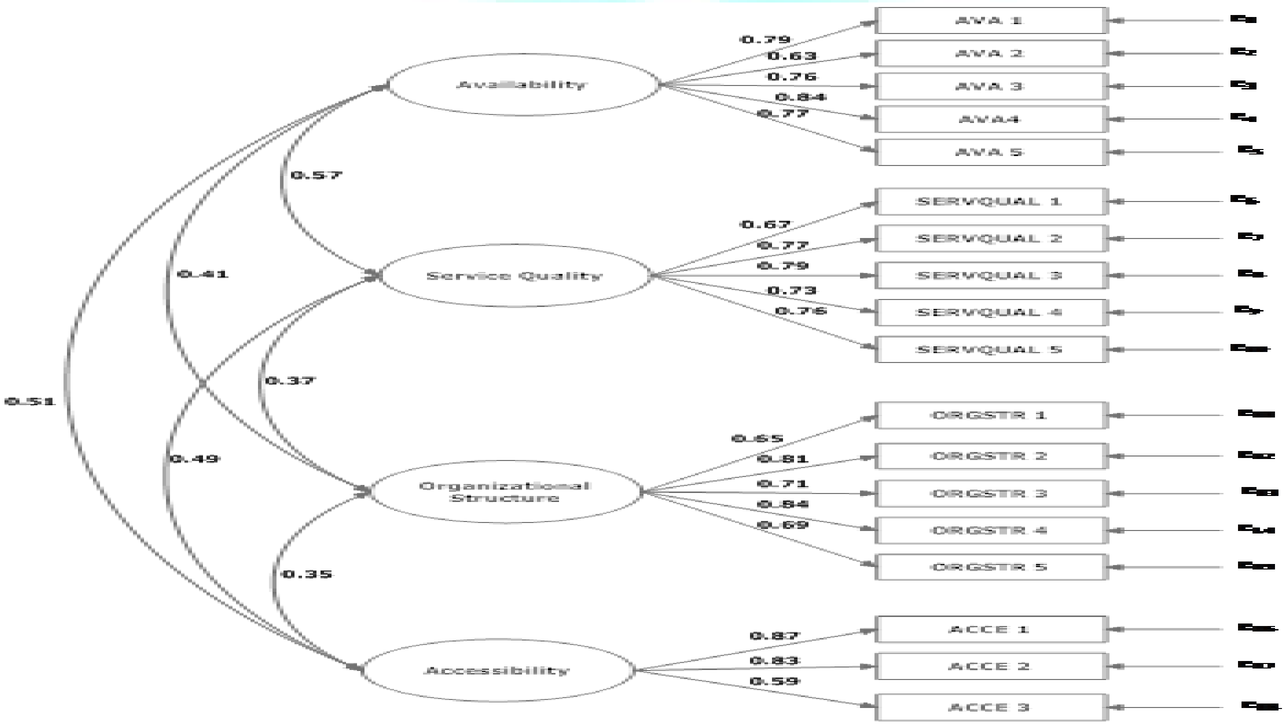


Both the proposed models have shown only moderate level of fit however model 2 has shown a good fit as comparison to model 1 on the basis of absolute measures, incremental fit measures and parsimonious fit measures.

TABLE 4: COMPARISON OF THE CALCULATED STATISTICS OF THE MODELS

S.No.	Absolute Measures			Incremental fit Measures		Parsimonious fit Measures	
	χ^2	GFI	RMSEA	CFI	TLI	AGFI	χ^2/ df
Model 1	779.23	0.694	0.113	0.763	0.753	0.632	3.435
Model 2	487.03	0.905	0.067	0.843	0.837	0.831	2.031

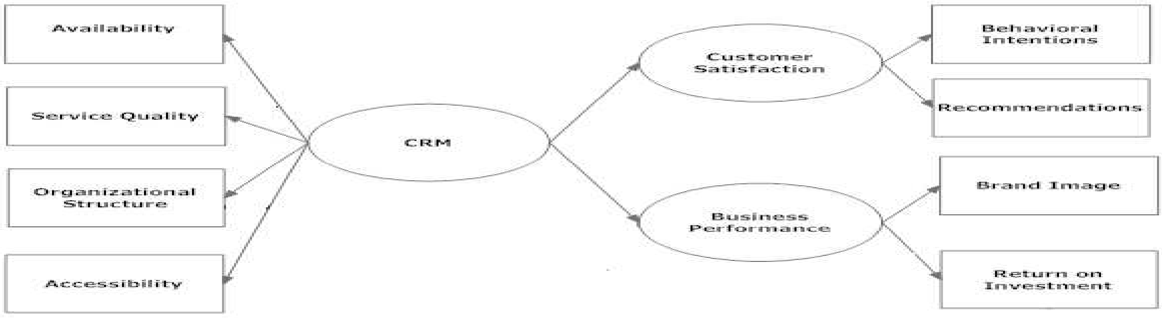
FIGURE 2: ONE FACTOR MODEL



CONCLUSION

The findings of this study firstly verified the long held belief that CRM is a multi dimensional construct. The major issues identified are listed which will definitely going to help the managers in effectively strategy planning so as to achieve the goals in an efficient manner. The critical factors leading to CRM in rural banking has been identified as availability, service quality, organizational structure and accessibility. These factors are further related to customer satisfaction and business performance which are the primary and compulsive goals for any business organization in the current competitive scenario. The comprehensive framework is proposed as shown below.

FIGURE 2: ONE FACTOR MODEL



Academically this research work bridges the gap in the existing literature by proposing a comprehensive framework specifically catering to Indian rural banking sector. Managerially by implementing the proposed framework by Indian banks in rural areas can enhance their customer acquisition, retention rates and overall profitability. This will ultimate result in the development of Indian economy as the banking system plays a critical role in it. Novelty of this work lies in the fact by considering the views of newly appointed government employees of rural areas in Madhya Pradesh, India and proposing a comprehensive framework for better implementation of CRM in Indian rural banking.

LIMITATIONS AND FUTURE RESEARCH LINES

The limitation of this study is that the sample size itself was relatively small and from Madhya Pradesh region of India. A large and diversified sample can be taken for the further enhancement of this research work. The applicability and validation of the proposed framework can be done by using Structural Equation modelling (SEM) and can be replicated in other national and cultural context to test the generalizability of the proposed framework.

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ANNEXURE

S.NO.	DIMENSION	CITATION	TIMES
	SERVICE QUALITY	Rod et al.(2008) ; Parasuraman et al. (1985); Zeithaml et al. (2001); Yang & Fang (2004); Raich (2007); Zemke & Schaaf (1990); Bloemer et al. (1998); Poolthong et al. (2009); Mavri et al. (2008); Guo et al. (2008); Johns et al. (2008); Dimitriadis & Stevens(2008); Zineldin (2005); Johns & Perrott(2008); Wenying & Quan (2010); Guo et al.(2010); Lewis & Soureli,(2006); Bejou et al. (1998); Salmones et al. (2005); Brown & Dacin (1997); Lewis & Soureli (2006); Chiou & Droge (2006); Dabholkar et al. (1996); Gournaris et al. (2003); Parasuraman et al. (1988); Athanassopoulos et al. (2001); Andreassen & Lindestad (1998); Kotler (2008); Chiou & Droge (2006); Lewis & Soureli (2006); Athanassopoulos (2000); Bloemer et al. (1998)	32
	CUSTOMER SATISFACTION	Rod et al. (2008); Peter et al. (1990); McQuitty et al. (2000); Homburg et al. (2001); Anderson et al. (1994); Lassar et al. (2000); Doll & Torkzadeh (1988); Doll et al. (1994); Collins et al. (1996); Jun et al.(2004); Han and Baek (2004); Raich (2007); Leverin & Liljander (2006); Chen et al. (2005); Liang & Wang (2007); Laukkanen et al. (2008); Ellen et al. (1991); McDonald et al.(2007); Anderson et al.(2004); Luo & Bhattacharya (2006); Oliver (1980); Yi (1990); Cooil et al. (2007); Capraro et al. (2003); Cooil et al. (2007); Chakrabarty (2006); Mavri et al. (2008); Berry (1995); Levesque and McDougall (1996); Nguyen & Gaston(1998); Bolton (1998); Anderson et al. (1994); Garvin (1988); Ball et al. (2004); Brige (2006); Smith & Lakhani (2008); Kaur and Sharma(2009); Shum et al.(2008); Wenying & Quan(2010); Lin et al.(2009); Bejou et al.(1998); Poolthong et al. (2009); Bloemer et al. (1998); Salmones et al. (2005); Krishnan et al. (1999)	42
	RELIABILITY/ TRUST/ TRUSTWORTHINESS	Rod et al.(2008); Parasuraman et al. (1985); Johnston (1995); Raich (2007); Han (2007); Tapscott et al.(2000); Poolthong et al. (2009); Chiou & Droge (2006); Lewis & Soureli (2006); Zeithaml et al. (2001); Wolfinbarger et al. (2002); Yang and Jun (2002); Leverin & Liljander (2006); Parasuraman et al. (1991); Harrison (2003); McDonald et al. (2007); Brown & Dacin (1997); Drumwright (1996); Maignan & Ferrell (2001); Murray & Vogel (1997); Sen & Bhattacharya (2001); Sen et al.(2006); Manzano et al. (2008); Heffernan et al.(2008); Guo et al.(2008); Ball et al.(2004); Ndubisi et al.(2005); Ndubisi et al.(2007); Hawke & Heffernan (2006); Ibbotson et al. (2003); Loonam et al.(2008); Richard et al. (2008); Heinrich(2005); Hawke & Heffernan(2006); Adamson et al. (2003); Gournaris et al. (2003); Bejou et al. (1998); Doney & Cannon (1997); Morgan & Hunt (1994); Moorman et al. (1993); Sirdeshmukh et al. (2002); Ganesan (1994); Hess (1995); Berry (1983); Chaudhuri & Holbrook (2001); Singh and Sirdeshmukh (2000)	46
	FLEXIBILITY	Rod et al.(2008); Zeithamal et al. (2001); Loonam et al.(2008)	3
	SECURITY/PRIVACY	Rod et al. (2008); Parasuraman et al.(1985); Jayawardhena & Foley (2000); Zeithaml et al. (2001); Wolfinbarger et al.(2002); Kevork et al.(2008); Yang and Jun (2002); Manzano et al.(2008); Loonam et al.(2008); Laforet et al. (2005); Singh (2004); Geib et al. (2006)	12
	RESPONSIVENESS	Rod et al.(2008); Parasuraman et al.(1985); Zeithaml et al. (2001); Jun et al.(2004); Johnston (1995); Yang and Jun (2002); Raich (2007); Parasuraman et al. (1991); Loonam et al.(2008)	9
	ACCURACY	Rod et al.(2008); Doll & Torkzadeh (1988); Doll et al. (1994); Collins et al.(1996); Pikkarainen et al. (2006)	5
	CONTENT	Rod et al.(2008); Jayawardhena & Foley (2000); Doll & Torkzadeh (1988); Doll et al. (1994); Collins et al. (1996); Pikkarainen et al. (2006)	6
	EASE OF USE	Rod et al.(2008); Yang et al.(2004); Doll & Torkzadeh (1988); Doll et al.(1994); Collins et al.(1996); Yang & Jun (2002); Pikkarainen et al. (2006); Jun et al.(2004); Laukkanen et al.(2008); Ho et al.(2008); Manzano et al.(2008); Riquelme & Rios (2010)	12
	TIMELINESS	Rod et al. (2008); Doll & Torkzadeh (1988); Doll et al. (1994); Collins et al.(1996)	4
	INFORMATION QUALITY	Rod et al. (2008); Loonam et al.(2008)	2
	AESTHETICS	Rod et al.(2008); Zeithaml et al. (2001); Kevork et al.(2008); Manzano et al. (2008)	4
	FEEDBACK	Rod et al. (2008); Kevork et al.(2008); Zeithaml et al. (2001); Manzano et al.(2008)	4
	CUSTOMER RETENTION	Rod, et al. (2008); Han & Baek (2004); McDonald et al.(2007); Mavri et al. (2008); Athanassopoulos (2000); Poel & Lariviere (2004); Levesque & McDougall (1996); Jones et al. (2002); Bolton (1998); Ho et al.(2008); Weinstein (2002); Ibbotson et al.(2003)	12
	INTERFACE	Rod et al. (2008); Manzano et al.(2008)	2
	EMPATHY	Rod et al.(2008); Raich (2007); Parasuraman et al.(1985); Parasuraman et al. (1991); Chen et al. (2005)	5
	CUSTOMER SUPPORT	Rod et al.(2008); Margit Raich (2007); Johnston (1995); Sasser and Fulmer (1990)	4
	CUSTOMER VALUE	Raich (2007); Mavri et al. (2008); Ho et al.(2008); Chang & Wildt (1994); Weinstein (2002); Sheth et al. (1991); Sweeney & Soutar (2001)	7
	CUSTOMER LOYALTY	McDonald et al. (2007); Poolthong et al. (2009); Morgan & Hunt (1994); Chiou & Droge (2006); Lewis & Soureli (2006); Nijssen et al. (2003); Brown & Dacin (1997); Drumwright (1996); Maignan & Ferrell (2001); Murray & Vogel (1997); Sen & Bhattacharya(2001); Sen et al.(2006); Mavri et al. (2008); Ball et al.(2004); Raich (2007); Leverin & Liljander (2006); Zemke & Schaaf (1990); Bloemer et al.(1998); McDonald et al. (2007); Maignan & Ferrell (2004); Berens et al. (2007); Cone et al. (2003); Lichtenstein et al. (2004); Salmones et al. (2005); Ndubisi et al.(2007); Singh (2004); Smith & Lakhani (2008); Dimitriadis & Stevens(2008); Mundt et al. (2006); Das et al.(2009); Berry et al. (1983); Lin et al. (2009); Wenying & Quan(2010)	33
	E-MAIL	Kevork et al.(2008)	1
	MOBILE COMMERCE	Kevork et al.(2008)	1
	CSR	McDonald et al. (2007); Brown & Dacin (1997); Drumwright (1996); Maignan & Ferrell (2001); Murray & Vogel (1997); Sen & Bhattacharya (2001); Sen et al.(2006); Poolthong et al. (2009); Yeomans (2005); Scott (2006); Luo & Bhattacharya (2006); Lafferty & Goldsmith (2005); Lichtenstein et al.(2004); Maignan & Ferrell (2004); Carroll (1979, 1991, 1999); Pomering & Dolnicar (2006); Handleman & Arnold (1999); Stanwick & Stanwick(1998); McWilliams & Siegel (2001); Murray & Vogel (1997); Turban & Greening (1997); Mohr et al.(2001); Argenti et al.(2005); Pirch et al.(2007); Berens et al. (2007); Poolthong et al.(2009); Rummell (1999); Salmones et al. (2005)	29
	BRAND	Poolthong et al. (2009); McDonald et al. (2007); Brown & Dacin (1997); Drumwright (1996); Maignan & Ferrell (2001); Murray & Vogel (1997); Sen & Bhattacharya (2001); Sen et al.(2006); Ballester & Aleman (2001); Chaudhuri & Holbrook (2001); Dick & Basu (1994); Fournier (1998); Gundlach et al. (1995); Brown & Dacin (1997); Cone et al. (2003); Folks & Kamins (1999); McWilliams & Siegel (2001)	17
	DEMOGRAPHY	Poolthong et al. (2009); Mavri et al. (2008); Gounaris et al.(2008)	3
	EMPLOYEE RELATIONS	Poolthong et al. (2009)	1
	ENVIRONMENT SUPPORT	Poolthong et al. (2009); McDonald et al. (2007); Barone et al. (2000); Berger & Kanetkar (1995); Creyer & Ross (1997); Bhattacharya & Sen (2004)	6
	PERCIEVED QUALITY	Poolthong et al. (2009); Rod et al.(2008); Jun et al.(2004)	3
	CUSTOMER RELATIONS	Mavri et al. (2008); Ho et al.(2008); Heffernan et al.(2008); Johns et al.(2008); Poolthong et al.(2009); Ballester and Aleman (2001)	6
	WORD OF MOUTH	Mavri et al. (2008); Jones et al. (2002); Brige (2006); McDonald et al. (2007); Handleman and Arnold (1999)	5
	PRICE	Mavri et al. (2008); Rod et al. (2008); Zeithaml et al. (2001); McDonald et al.(2007); Farquhar & Panther (2007); Poolthong et al.(2009); Ballester & Aleman (2001); Athanassopoulos (2000); Anderson et al. (1994); Garvin (1988)	11
	PRODUCT FEATURES	Mavri et al. (2008); Poel & Lariviere (2004); Ho et al.(2008); Rod et al.(2008)	4

	USEFULNESS	Ho et al.(2008); Rod et al.(2008); Yang et al.(2004); Riquelme & Rios (2010)	4
	TECHNOLOGY	Rod et al.(2008); Liang Han (2007); Laukkanen et al.(2008); Parasuraman (2000); Sanders & Temkin (2000); Frame et al. (2001); Petersen and Rajan (2002); Berger (2003); Corrocher (2006); Joseph et al. (1999); Kumar et al.(2008); Guo et al.(2008); Johns et al.(2008); Jenkins (2007); Brige (2006); Johns (2008); Sayar & Wolfe(2007); Malhotra & Singh(2010); Richard et al.(2008); Lee et al. (2005); Johns & Perott(2008)	21
	STAFF PRODUCTIVITY	Kumar et al.(2008)	1
	PERFORMANCE	Rod et al.(2008); Peter et al.(1990); Kumar et al.(2008); Manzano et al.(2008)	4
	CONSUMER BEHAVIOR	Mavri et al.(2008); Gounaris et al.(2008); Raich (2007); Baumann et al.(2007)	4
	KNOWLEDGE	Heffernan et al.(2008); Rod et al. (2008); Parasurman et al.(1985); Liang Han (2007)	4
	EXPECTATION	Heffernan et al.(2008); Rod et al. (2008); Peter et al.(1990); McQuitty et al.(2000); Dimitriadis & Stevens (2008)	5
	COMMUNICATION	Guo et al.(2008); Rod et al.(2008); Parasuraman et al.(1985); Ball et al. (2004); Ndubisi et al. (2005); Ndubisi et al.(2007); Hawke & Heffernan (2006); Aodheen et al.(2002); Riquelme & Rios (2010); Hawke & Heffernan(2006)	10
	COMPETENCE	Ndubisi et al. (2005); Ndubisi et al. (2007); Rod et al. (2008); Parasurman et al.(1985); Han (2007); Lee and Turban (2001)	6
	CONFLICT HANDLING	Ndubisi et al. (2005); Ndubisi et al. (2007)	2
	RELATIONSHIP QUALITY	Ndubisi et al. (2005); Ndubisi et al. (2007)	2
	CUSTOMER COMMITMENT	Ndubisi et al. (2007); Adamson et al. (2003); Heinrich(2005); Dash et al. (2009); Guo et al.(2010)	5
	SIMILARITY	Hawk et al. (2006)	1
	PROFESSONALISM	Hawke & Heffernan (2006)	1
	PRSONALITY	Hawke & Heffernan(2006)	1
	WEB USABILITY	Loonam et al. (2008)	1
	ACCESS	Loonam et al.(2008); Rod et al.(2008); Parasurman et al.(1985); Zeithaml et al. (2001); Yang and Jun (2002)	5
	SERVICE RECOVERY	Mary Loonam et al.(2008); Mavri et al. (2008); Levesque & McDougall (1996)	3
	CUSTOMIZATION/PERSONALIZATION	Mary Loonam et al(2008); Laforet et al. (2005); Zeithaml et al. (2001)	3
	RISK PERCEPTION	Laforet et al. (2005); Riquelme & Rios (2010); Richard et al. (2008); Lee(2005); Laukkaken et al. (2008); Sheth (1981,1989)	7
	TECHNOLOGICAL SKILLS	Laforet et al.(2005)	1
	LEADERSHIP BEHAVIOUR OF SALESPERSON	Jayakody et al. (2006); Kaur and Sharma (2009)	2
	FINANCIAL LITERACY	Brige (2006)	1
	IMAGE	Brige (2006); Poolthong et al. (2009); Bloemer et al. (1998); Salmones et al. (2005)	4
	PRESTIGE	Andra Brige (2006); Poolthong et al. (2009); Bloemer et al. (1998); Salmones et al. (2005)	4
	INNOVATIVENESS	Malhotra & Singh(2010); Waite (2001); Laukkanen et al.(2008); Gatignon & Robertson(1985, 1991); Ram (1987); Sheth (1981) Mittelstaedt et al. (1976); Gournaris et al. (2003); Mavri et al. (2008); Athanassopoulos (2000)	11
	COMPETITIVENESS	Zineldin (2005); Shum et al.(2008)	2
	VALUE CREATION	Zineldin (2005)	1
	PRODUCT DIFFERENTIATION	Zineldin (2005)	1
	INCREASED PROFITABILITY	Smith & Lakhani(2008)	1
	GENDER/MASCULINITY OR FEMININITY	Riquelme & Rios(2010)	1
	CUSTOMER CENTRIC MKG.	Kaur and Sharma(2009); Law et al.(2003)	2
	VALUE CONGRUENCY	Kaur and Sharma(2009)	1
	CUSTOMER ORIENTATION	Kaur and Sharma(2009)	1
	ORGANIZATION CULTURE	Kaur and Sharma(2009); Richard et al.(2008)	2
	CUSTOMER ATTRACTIVENESS	Heinrich(2005)	1
	RELATIONSHIP VALUE	Heinrich(2005)	1
	CO-ORDINATION	Dimitriadis & Stevens(2008)	1
	REDUCE COST	Dimitriadis & Stevens(2008)	1
	CREATING ORGANISATION CHANGE	Shum et al.(2008)	1
	EMPLOYEE'S COMMITMENT	Shum et al.(2008)	1
	JOB SATISFACTION	Shum et al.(2008); Saura et al.(2005)	2
	CROSS FUNCTIONAL INTEGRATION	Shum et al.(2008)	1
	SOCIAL BONDING	Dash et al. (2009)	1
	LONG TERM RELATIONSHIP ORIENTATION	Dash et al.(2009)	1
	LOW MORALE	Richard et al.(2008); Lin et al.(2010)	2
	EMPLOYEE TRAINING	Richard et al.(2008)	1
	STAFF QUALITY	Richard et al.(2008)	1
	CROSS-SELLING	Mundt et al.(2006)	1
	COMPATIBILITY	Lee et al.(2005)	1
	RELATIONSHIP PORTFOLIO MANAGEMENT	Proença & Castro(2005)	1
	STAFF MOTIVATION	Nigel Waite, (2001)	1
	CO-CREATIVE APPROACH	Monica Law et al (2003)	1
	Internet Banking	Vimi (2010); Rod et al.(2008); Jayawardhena & Foley (2000); HanBaek (2004); Laukkanen et al. (2008); Pikkarainen et al.(2006); Szmigin &Foxall (1998); Akinci et al. (2004); Gerrard & Cunningham, (2003); Karjaluoto (2002); Karjaluoto et al. (2002); Ravi et al.(2006); Rotchanakitmnuai & Speece(2003); Yiu et al.(2007); Ho et al.(2008); Sweeney & Soutar (2001); Gounaris, et al(2008)	17
	Perceived Value	Wenying, W. & Quan, S(2010); Poolthong, et al. (2009); Nijssen et al. (2003)	3
	Data Mining	Ranjan & Bhatnagar(2010); Chiang et al.(2003)	2
	Customization of CRM Modules	Lin et al.(2010)	1
	Empowering employees with decision making	Lin et al.(2010)	1
	Decision Support System	Lin et al.(2010)	1
	Customer Lifetime Value	Haenlein et al.(2007)	1
	Interpersonal Liking	Hawke & Heffernan(2006)	1
	Cooperation	Hawke & Heffernan(2006)	1
	Product Value	Zineldin(2005)	1

DETERMINANTS OF INCOME GENERATION OF WOMEN ENTREPRENEURS THROUGH SHGS

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ABSTRACT

Entrepreneurship development and income generating activities are a feasible solution for empowering women. It generates income and also provides flexible working hours according to the needs of home makers. Economic independence is the need of the hour. Participation in income generating activities helps in the overall empowerment of women. Empowering women through education, ideas, consciousness, mobilization and participatory approach can enable them to take their own decisions, make them self-reliant and self-confident. The socio-demographic features of the women entrepreneurs are significantly different in various aspects. About 52.80 per cent of women entrepreneurs belong to the age group of 30-45 years followed by less than 30 years. About 48 per cent of women entrepreneurs were involving in marketing followed by supplier (23.40 per cent). About 16.60 per cent of the women carried manufacturing activities while, only 12.00 per cent was involving in service sector activities Past experience and network, correct business location, environment protection, less mistakes and orientation and training are positively influencing the business income of the women entrepreneurs. Entrepreneurial development should not be left to chance, as is the practice now. The training programmes should include identification and selection of potential entrepreneurs, and their motivation into entrepreneurial career through provision training and other inputs necessary to set up entrepreneurial units. Lack of coordination among the institutions in providing power, water, communication and finance seriously hinder the growth of women entrepreneurship. To improve this situation, the proper coordination mechanism and monitoring system should be formulated and implemented.

KEYWORDS

Income, Enterpreneur, SHG, Women empowerment.

INTRODUCTION

In almost all the societies, women have less power than men, have less control over resources and receive lesser wages for their work. It is unfortunate that because of centuries of inertia, ignorance and conservatism, the actual and potential role of women in the society has been ignored, preventing them from making their rightful contribution to social progress. Women must be empowered by enhancing their awareness, knowledge; skills and technology use efficiency, thereby, facilitating overall development of the society. In various national policies and developmental programmes, emphasis has been given on organizing women in Self Help Groups and thus, marks the beginning of a major process of empowering women (Ashford, 1995).

Entrepreneurship development and income generating activities are a feasible solution for empowering women. It generates income and also provides flexible working hours according to the needs of home makers. Economic independence is the need of the hour. Participation in income generating activities helps in the overall empowerment of women. Empowering women through education, ideas, consciousness, mobilization and participatory approach can enable them to take their own decisions, make them self-reliant and self-confident.

The emergence of women entrepreneurship in the past two decades and especially in the second half of the 1990's is not a coincidence. First of all, the entire business environment has changed. Women are being encouraged to participate in various business activities – a process that was unimaginable decades ago. Next, the rapid development of computers and information technology makes starting and operating a business easier, with less capital and a lower minimum efficient level of production. Third, the rapid expansion and specialization of the service sector have provided women with new opportunities to pursue their own business careers.

Although women are taking on important positions in the business sector, they continue to face barriers to their entrepreneurial activities, compared to their male counterparts. Women still have to struggle with their traditional role in order to balance career and household responsibilities. They have to endure negative social value and cultural bias that lead to unfair perceptions about their ability to operate a business and legal constraints also limit the pursuit of economic independence by women. With this background, the present study was attempted to study the determinants of income generation of women entrepreneurs through SHGs in Tiruvallur district of Tamil Nadu.

METHODOLOGY

Among the different districts in Tamil Nadu, the Tiruvallur district has been purposively selected for the present study. Among different geographical locations in the district, Madavaram, Manali, Redhills and Tiruvallur have been again purposively selected based on the concentration of number of Self Help Groups (SHGs) and members. The data and information have been collected from the respondents by adopting random sampling technique. The district has been selected purposively followed by geographical location and the sample respondents have been selected randomly thus, multi-stage random sampling technique has been adopted for data collection. The data and information have been collected from the sample size of 500 through pre-tested, structured interview schedule through direct interview method. The primary data collected from respondents pertains to the year 2008-2009.

STATISTICAL TECHNIQUES

DESCRIPTIVE STATISTICS AND CHI-SQUARE TEST

In order to analyze the socio-demographic features, the descriptive statistics has been carried out. Besides, in order to analyze the differences among the socio-economic features, the Chi-Square test is employed and the formula is:

$$\chi^2 = \sum \left(\frac{(O-E)^2}{E} \right)$$

Where

O = Observed Frequency in each category

E = Expected Frequency in the corresponding category

DETERMINANTS OF INCOME GENERATION

In order to assess the determinants on income generation of women entrepreneurs, the multiple linear regression analysis by Ordinary Least Square (OLS) estimation has been applied for identified variables. The functional form of multiple liner regression model are given below:

$$\mathbf{Y = \alpha + \beta_i X_i + e_i}$$

Where

Y = Dependent Variable (Business Income)

X_i = Independent Variable(Growth Determinants)

i = 1 to 15
α = Intercept
β_i = Partial Regression Coefficients
e_i = Random Error or Stochastic Disturbance Term
The α and β_i are the coefficients which are to be calculated through Ordinary Least Square (OLS) estimation.

RESULTS AND DISCUSSION

SOCIO-DEMOGRAPHICS

The socio-demographic features of women entrepreneurs were analyzed and the results are hereunder discussed. The age distributions of women entrepreneurs were analyzed and the results are presented in Table 1. From the table, the majority of women entrepreneurs (52.80 per cent) belonged to the age group of 30-45 years followed by less than 30 years (41.80 per cent). Only 5.40 per cent of women were in the age group of 45 and above 45 years. The chi square value was 0.01 and it was statically significant at five per cent level of significance indicating that there was a significant difference between age of the women entrepreneurs.

TABLE-1: FREQUENCY DISTRIBUTION OF AGE OF WOMEN ENTREPRENEURS

Age	Frequency	Per cent	Chi Square Value	Sig
< 30 Years	209	41.80	0.010	0.00
30-45 Years	264	52.80		
45 and Above	27	5.40		
Total	**500**	**100.00**		

Source: Primary & Computed Data

The educational qualifications of the women entrepreneurs are presented in Table 2. The results indicated that about half of the entrepreneurs (50.40 per cent) have school education followed by under graduation (42.80 per cent). The post graduation and professionals accounted about only 2.60 per cent while illiterates were only 4.20 per cent. The chi square value was 0.05 and it was statically significant at five per cent level of significance indicating that there was a significant difference between educational qualifications of the women entrepreneurs.

TABLE-2: FREQUENCY DISTRIBUTION OF QUALIFICATION

Educational Qualification	Frequency	Per cent	Chi Square Value	Sig
School Education	252	50.40	0.050	0.00
Under Graduation	214	42.80		
Post Graduation and Professionals	13	2.60		
Illiterates	21	4.20		
Total	**500**	**100.00**		

Source: Primary & Computed Data

The source of income from business for women entrepreneurs are presented in Table 3. The results showed that about 48 per cent of women entrepreneurs earned income in the range of Rs. 50000-1 lakh from their business followed by less than Rs. 50000(33.00 per cent). About 18 per cent of entrepreneurs earned the income in the range of Rs.1 lakh-150000 and only 0.4 per cent earned their income in the range of above 2.5 lakh. The chi square value was 0.02 and it was statically significant at five per cent level of significance indicating that there was a significant difference between business income for the women entrepreneurs.

TABLE-3: FREQUENCY DISTRIBUTION OF BUSINESS INCOME

Business Income(Rs)	Frequency	Per cent	Chi Square Value	Sig
< 50000	165	33.00	0.02	0.01
50000-1 Lakh	240	48.00		
1Lakh- 150000	90	18.00		
150000-2.5 Lakh	3	0.60		
> 2.5 Lakh	2	0.40		
Total	**500**	**100.00**		

Source: Primary & Computed Data

The distribution of sector wise business activity is presented in Table 4. It is clear that about 48 per cent of women entrepreneurs were involving in marketing followed by supplier (23.40 per cent). About 16.60 per cent of the women carried manufacturing activities while, only 12.00 per cent was involving in service sector activities. The chi square value was 0.01 and it was statically significant at five per cent level of significance indicating that there was a significant difference between sector of business activity of the women entrepreneurs.

TABLE-4: FREQUENCY DISTRIBUTION OF SECTOR OF BUSINESS ACTIVITY

Sector	Frequency	Per cent	Chi Square Value	Sig
Manufacturing	83	16.60	0.01	0.00
Marketing	240	48.00		
Supplier	117	23.40		
Service	60	12.00		
Total	**500**	**100.00**		

Source: Primary & Computed Data

The enterprise base of the women entrepreneurs is presented in Table 5. From the table, it is apparent that the enterprise base for majority of the entrepreneurs (60.40 per cent) was semi-urban followed by urban (37.60 per cent).Only two per cent of them, used metropolitan area as their enterprise base. The chi square value was 0.02 and it was statically significant at five per cent level of significance indicating that there was a significant difference between enterprise base of the women entrepreneurs.

TABLE-5: FREQUENCY DISTRIBUTION OF ENTERPRISE BASE

Sector	Frequency	Per cent	Chi Square Value	Sig
Semi Urban	302	60.40	0.02	0.01
Urban	188	37.60		
Metropolitan	10	2.00		
Total	**500**	**100.00**		

Source: Primary & Computed Data

DETERMINATES OF INCOME GENERATION

In order to assess the determinants on income generation of women entrepreneurs, the multiple linear regression analysis by Ordinary Least Square (OLS) estimation has been applied and the results are presented in Table-6. The results of multiple linear regression analysis through OLS estimation is presented in Table 4.8. The results show that the coefficient of multiple determination (R^2) is 0.46 indicating the regression model is moderately fit.

The independent variables of My past experience strengthens and develops network(X_4), Correct business location contributed to my success (X_6), I take measures to protect the environment as I grow (X_8), As I gain more experience I commit less mistakes (X_9) and Orientation and training assisted me to run my business (X_{12}) are statistically significant at one per cent level of significance and these variables are positively influencing the business income of the women entrepreneurs.

The factors Capital planning at each stage helped me to develop (X_5) and Infrastructure facilities provided by the Government has led to development of the business (X_{13}) are also statistically significant at one per cent of level of significance but, these factors are negatively influencing the business income of women entrepreneurs through self-help groups.

TABLE-6: REGRESSION ESTIMATES OF THE VARIABLE DETERMINING THE INCOME GENERATION OF WOMEN ENTREPRENEURS

Growth Determinants	Regression Coefficients	t-value	Significance
Intercept	2.030**	11.468	.000
My status improved when I achieved better results	-.008	-.247	.805
My advisers help me in smooth conduct of business	-.008	-.251	.802
My past experience strengthens and develops network	-.021	-.720	.472
Capital planning at each stage helped me to develop	.041**	2.224	.021
Correct business location contributed to my success	-.075**	-2.508	.012
Incentives, subsidies and concessions provided by Central/State Government are great assistance to me	.072**	2.376	.018
I take measures to protect the environment as I grow	-.035	-1.038	.300
As I gain more experience I commit less mistakes	.037**	2.145	.023
Legal status of the organization led to my growth	.038**	2.227	.020
Proper pricing strategy enhanced my growth	-.014	-1.058	.291
Orientation and training assisted me to run my business	-.045	-1.417	.157
Infrastructure facilities provided by the Government has led to development of the business	.029**	2.842	.010
Liberalization, Privatization and Globalization policy of the Government led to my present growth	-.095**	-2.623	.009
Quick and prompt decision marking helped me to grow	.038	1.105	.270
My friendly attitude towards labour led me to my success	-.017	-.572	.568
R^2	0.46		
Adjusted R^2	0.28		
F	2.304		0.004
N	500		

Source: Computed Data

Note: ** Significance at one per cent level

CONCLUSION

The forgoing analysis indicted that the socio-demographic features of the women entrepreneurs are significantly different in various aspects. About 52.80 per cent of women entrepreneurs belong to the age group of 30-45 years followed by less than 30 years. It was evident that about 62.42 per cent of women in the business income group of Rs. less than 50000, 55.42 per cent in the income group of Rs.50000-1 lakh and 73.00 per cent in the income group of Rs. 1 lakh-15000 have invested less than Rs.25 lakhs. About 48 per cent of women entrepreneurs were involving in marketing followed by supplier (23.40 per cent). About 16.60 per cent of the women carried manufacturing activities while, only 12.00 per cent was involving in service sector activities

My past experience strengthens and develops network, Correct business location contributed to my success, I take measures to protect the environment as I grow, As I gain more experience I commit less mistakes and Orientation and training assisted me to run my business are positively influencing the business income of the women entrepreneurs.

Entrepreneurial development should not be left to chance, as is the practice now. The training programmes should include identification and selection of potential entrepreneurs, and their motivation into entrepreneurial career through provision training and other inputs necessary to set up entrepreneurial units.

The growth of women entrepreneurs should be encouraged by providing special incentives, tax concessions, reduced rat of interest, transport and fuel subsidies.

For creating a healthy entrepreneurial environment, they should also be given orientation about the various tools and techniques of accounting and finance.

Lack of coordination among the institutions in providing power, water, communication and finance seriously hinder the growth of women entrepreneurship. To improve this situation, the proper coordination mechanism and monitoring system should be formulated and implemented.

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AGRICULTURAL CREDIT: IMPACT ASSESSMENT

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ABSTRACT

Agriculture assumes greater importance in a developing country like India where the growth in national income has largely been determined by the trends in agricultural production. The reason is that it contributes the biggest share of percentage of NDP of India, provides employment and means of livelihood for over 60% of the population and contributes the country's total exports. Agriculture in a narrow sense is referred to crop production in its wider sense includes other allied activities where biological transformation is the process of production. Following the definition of National commission on Agriculture, 'It includes activities like cultivation of crops, cattle rearing & dairy farming, raising piggery and poultry and development of fishery and forestry and also activities connected with their improvements while 'maximisation of output through modernisation of agriculture and allied activities is termed as agriculture development. That in India lives in her villages is true even to this day. India is a country of 5.76 lakh villages & every four persons out of five are villagers and every five out of six persons depend on agriculture and allied activities. The All India Rural Credit Survey (AIRCS) has rightly remarked that India is rural India and that rural India is virtually the cultivator who lives in the village. Thus, any development in India is synonymous with the development of 'Rural India' which is 'Real India'. Therefore, agricultural development implies not only a growth in farm productivity, but also improvement in the general economic conditions of the rural masses. Rural development has gained wide importance along with agricultural development since the introduction of five year plans in the country. Rural development is a strategy designed to improve the economic and social life of a special group of people, the rural poor. It involves extending the benefits of development to the poorest among those who seek a livelihood in rural areas. This group includes small farmers, tenants, landless & people of low income & related activities. It has been widely accepted that agricultural development in rural areas contributes a great deal to rural development. Thus, it can be concluded that Agricultural development is a pre-requisite for rural development. Both can be said to be complimentary to each other, a fair combination of these two, contributes to the overall economic development. However, agricultural development alone in rural areas does not result in rural development. The National Bank for Agricultural & Rural Development (NABARD) after recognising the importance of developing the non-farm sectors as a means to enhance employment opportunities to the rural masses, has stressed the need "for providing credit for promotion of small scale industries, cottage and village industries, Handicrafts, & other allied activities along with agriculture in rural areas with a view to promoting integrated rural development.

KEYWORDS
Agriculture, Credit, Developing country, Production.

INTRODUCTION

Agriculture credit refers to credit provided to rural population it covers loans to agricultural as well as loans to non-agriculturists, artisans & landless who residing in rural areas.

Credit is a vital factor in Indian Agriculture since the majority of the rural farmers are poor. Technological transformation & rural development necessitates the provision of cheap finance.

The necessity of credit in India arose because majority of farmers and non-agricultural population suffer from financial anaemia at present and that the injection of sufficient quantities of finance tem could accelerate their pace and increase the value and volume of their production. The ideal agricultural credit scheme should aim at providing and ensuring adequate finance to every person in the countryside, who is engaged in or willing to in any economic activity.

The importance of agricultural credit in a country like India, which is essentially rural in nature hardly, needs elaboration. Economic Development of the countryside hinges upon availability of credit to rural economy. The burden of indebtedness in rural India is great, & falls mainly on the households of rural working people. The exploitation of this group in the credit market is one of the most pervasive and persistent features of rural life in India. Despite major structural changes in credit institutions and forms of agricultural credit, Darling statement (1925) that ' the India farmer is born in debt, lives in debt and bequeaths debt', still remains true for the great majority of agricultural households in the countryside. Rural households need credit for variety of reasons.

The rural economic activity is highly seasonal in nature and households need credit to smooth out seasonal fluctuations in earnings and expenditure. Credit is necessary both for meeting the short term requirements for working capital and for long term investment in agriculture & other income-bearing activities. Realisation of the gravity of the problem of agricultural credit by the government at different levels & at different periods is well reflected in appointment of several committees and commissions to examine the problem of agricultural credit.

SOURCES OF CREDIT

There are chiefly two sources of agricultural credit in India, namely Institutional and Non-institutional. Non-institutional sources include the private money-lenders, commission agents etc. who all are detrimental to the interest of rural people. In view of the evil effects of these non-financial institutional agencies, attempts were made from very beginning for the provision of cheap credit to the cultivators.

Agricultural credit is disbursed with the help of a multi-agency network consisting of commercial banks (CBs), Regional Rural Banks (RRBs) and Co-operatives. Approximately there are 100000 village level Primary Agricultural Credit Societies (PACS), 368 District Central Co-operative Banks (DCCBs) & 30 State Co-operative Banks (CBs). These are providing ST, MT agricultural credit. 19 State Co-operative Agricultural & Rural Development Banks and Primary Co-operative Agriculture & Rural Development Banks are providing LT agricultural credit.

OBJECTIVES OF THE STUDY

1. To measure the impact of bank finances on agriculture /production income & total income of the respondents.
2. To examine the extent of utilization of credit by borrowers & to find out the reasons for miss-utilization, if any
3. To study the repayment performance of the beneficiaries
4. To offer suggestions helpful in solving problems on the basis of conclusion drawn by the study

SOURCES OF DATA

The study is based on both primary & secondary data

Primary data with regard to agricultural / production income & income of other family members , credit utilization & recovery, opinion of the 50 sample beneficiaries on problems faced by them in getting credit, delay experience, interest rates etc are collected from the beneficiaries with the help of structured schedules designed and finalised after a pilot survey.

Secondary data includes information obtained from annual reports of Syndicate Bank, publications of NABARD & RBI, Hand books on co-operative movement, publications of the Lead bank, statistical department's reports, agricultural department reports etc. Moreover, the necessary details are collected from the files and ledgers of the Bank & by holds discussions with the officials of the bank. Secondary data also are obtained from books, journals, websites etc.

SAMPLE DESIGN OF STUDY

Random sampling technique is adopted for the selection of beneficiaries. Randomly 50 beneficiaries were selected, interviewed with the help of the structured schedule.

PERIOD OF STUDY

For analysing the impact of bank credit on the beneficiaries, borrowers who had availed themselves of loan during 2005-06 are selected. So that the impact of loan could be easily assessed after the necessary gestation period, at the time of field survey

DATA ANALYSIS

The performance of bank has been evaluated using secondary data from the annual reports of the bank. Important indicators like Membership, working capital, loans advanced profits etc. Which have a bearing on the banks working are analysed.

MEASUREMENT OF IMPACT

For the present study 'before' & 'after' approach is used. A comparison of the production/yield & income of the sample borrowers before & after availing financial assistance from bank are collected and the incremental income obtained is taken as a measure to quantify the impact of loan. Thus, though the comparison brought out by adopting this 'before' & 'after' loan' approach has its own limitations. The adequacy of credit supplied and utilization pattern of credit by the sample respondents (50) has also been collected during the field survey.

Tools for Analysis

The tools employ for analysing the data will include mathematical formula such as percentage, averages etc.

RESULTS AND DISCUSSION

A field survey was designed and conducted among the borrowers to measure the impact of lending and to examine the utilization and recovery pattern. Borrowers who have availed themselves of different categories of bank loan are selected for the survey. This chapter deals with the presentation of the survey data duly tabulated and analyzed with the help of appropriate statistical tools.

This is divided into five sections. Section A gives the profile of the sample borrowers who are selected for the study. Section B gives opinion of borrowers towards Syndicate Bank. Section C analyzes the impact of credit on the agriculture/ production income and on the total income of the borrowers. The utilization pattern of long term credit by the respondents is discussed in section D. The repayment behavior and overdue pattern of the sample borrowers are the subject matter of section E.

SOCIO-ECONOMIC PROFILE OF SAMPLE BORROWERS

In this section, an attempt is made to examine the socio-economic profile of the sample borrowers in the study area. Age, Sex, Composition, Education Level, Family size, Occupational pattern, the land distribution pattern etc of the sample borrowers are analyzed here.

AGE-WISE DISTRIBUTION OF BORROWERS

The detail of age-wise distribution of the sample borrowers is shown in Table-4.1. The majority of borrowers 50 % come under the age group of 35-50 years.

TABLE-4.1 AGE-WISE DISTRIBUTION OF BORROWERS

Age group (in Years)	No. of borrowers	%
Below 35	12	24
35-50	25	50
Above 50	13	26
Total	50	100

Source: Survey data

SEX-WISE DISTRIBUTION

Table 4.2 shows the sex-wise distribution of sample beneficiaries. It is seen that 70 percent of the borrowers are male as against 30 percent women. This trend of male outnumbering female is seen in the case of all types of loans. Thus, there is a domination of male beneficiaries in the case of the long term lending by syndicate bank.

TABLE 4.2 SEX-WISE DISTRIBUTION

Sex	No. of borrowers	%
Male	35	70
Female	15	30
Total	50	100

Source: Survey data

FAMILY SIZE-WISE DISTRIBUTION OF BORROWERS

The ideal family size as estimated by the family welfare association is five. In our classification, we have grouped the beneficiaries into to two groups, respondents with family size above five and the other, respondents with family size below five. Table 4.3 shows the family size-wise distribution of sample borrowers. 27(54%) borrowers have family size of less than five, while 23 (46%) borrowers have more than five members in their families.

4.3 FAMILY SIZE-WISE DISTRIBUTION OF SAMPLE BORROWERS

Family size	No. of borrowers	%
Less than 5	27	54
5 or more	23	46
Total	50	100

Source: Survey data

EDUCATIONAL LEVEL OF THE SAMPLE BORROWERS

As regards educational qualifications, what seems significant is that the borrowers with no formal education are few ie. 30%. It is noted that the borrowers with college level education are only 5.

TABLE-4.4 EDUCATIONAL LEVEL OF THE SAMPLE BORROWERS

Education Level	No. of borrowers	%
No	35	70
Yes	15	30

Source: Survey data

OCCUPATIONAL CLASSIFICATION

A borrower who spends the major part of his time for a particular work or who is getting more than half of his total income from a particular source has been classified under that occupation. Table-4.5 exhibits such an occupation-wise classification of sample borrowers. Agriculture operations constitute the main occupation of the largest number of borrowers i.e. 36 % of the total borrowers selected in the study followed by laborers (28%), salaried employment (18%), village/small scale industries (14%) and others (4%). Thus, this analysis indicates that the occupational pattern is more or less a reflection of the general situation prevailing in the state.

TABLE-4.5 OCCUPATIONAL CLASSIFICATION

Main occupation	No. of borrowers	%
Agriculture	18	36
Laborers	14	28
Salaried employment	09	18
Village/SSI	07	14
Others	02	04
Total	50	100

Source: Survey data

LAND HOLDING PATTERN

The occupational analysis revealed that the majority of loanees are agriculturists/ laborers. Since land is that main factor to derive income, it would be better to know the landholding pattern of the beneficiaries. Table-4.6 reveals that majority of the farmers selected for the study are either marginal or small farmers. 72% of the sample borrowers are marginal farmers having less than 1 acre of land while small farmers (landholding 1 to 2 acres) account 18% of the total, medium farmers account for 8% while large farmers are only 2% of the total sample selected for the study.

TABLE-4.6

Land holding (Acres)	No. of borrowers	%
Below 1 Acre	36	72
1-2	09	18
2-4	04	08
4 and above	01	02
Total	50	100

Source: Survey data

EARNING MEMBERS IN FAMILY

The distribution of beneficiaries with respect to the number of earning members in the family is given in Table 4.7, 54% of the respondents are having two or more earning members in their family.

Earning members in the family	No. of borrowers	%
Only one	23	46
Two and more	27	54
Total	50	100

Source: Survey data

FINDINGS

From the foregoing analysis of the socio-economic profile of the sample borrowers, it can be concluded that the majority of respondents are male borrowers who are in the age of 35 to 50 years. None of them are illiterates, but the number of highly educated respondents is comparatively low and most of them are having only elementary school level education. Of the sample borrowers, 54% of them are having a family size of less than five members, while the others have five or more members in their family. Regarding the number of earning members, 54% of the selected borrowers are having two or more earning members in their family.

OPINION OF FARMERS TOWARDS SYNDICATE BANK CREDIT

The attitude of the respondents towards bank loan i.e. the problems and difficulties faced by them in getting finance are also collected. The collected information is presented in Table 4.8.

Regarding procedural formalities of the bank in getting the loan sanctioned, 70% of the borrowers opined that the bank had a number of unnecessary procedures and formalities to be complied with, which created a lot of inconvenience and delay. Borrowers had to produce Non-encumbrance certificate and other such documents, resulting in additional expenses.

A good number of respondents (64%) had to visit the bank five to six times in connection with the loan proposal. Only 10% of them opined that they could manage to get the loan in three visits mainly because they had some friends or relatives in the bank.

It is seen that on an average it took 2 to 3 months for getting the loan sanctioned. 62% of the respondents had to wait for 3 months while 32% of them could get the loan in one month. However, except for the unnecessary formalities, the borrowers did not experience any difficulty.

Respondents (84% of the total) complained of high interest rate charged along with the penal interest, even in adverse situations of natural calamities. They are of the opinion that at least the deserving farmers should be provided subsidy for agricultural development purposes since it is one of the priority areas of development.

TABLE- 4.8 BORROWERS OPINION IN RESPECT OF CREDIT FACILITIES FROM BANK

Opinions		No. of borrowers	%
1.	Procedural formalities		
a.	Easy	15	30
b.	Difficult	35	70
2.	Bank visit in connection with loan proposal		
a.	3 times	05	10
b.	5 times	32	64
c.	More than 5 times	13	26
3.	Time lag in processing applications		
a.	1 month	16	32
b.	3 months	31	62
c.	More than 3 months	03	06
4.	Rate of interest		
a.	High	42	84
b.	Low or Moderate	08	16
5.	Repayment		
a.	Satisfactory	02	04
b.	Not satisfactory	48	96
6.	Advisable to take loan from syndicate bank		
a.	Yes	32	64
b.	No	18	36

Source: Field data

96% of the total borrowers opined that the repayment installments payable once in a year created a lot of difficulties, particularly when the amount due is very large. All the respondents stressed that the repayment should be made half yearly or quarterly.

However, in spite of all these problems and difficulties, 64% of the borrowers reported that it is advisable to take loan for agriculture development from the Syndicate Bank. However, 36% of the respondents are of the opinion that it is not advisable to take loan for this purpose from the bank.

IMPACT OF SYNDICATE BANK CREDIT ON FARM/BUSINESS INCOME

Supply of credit is said to be productive or fruitful only if additional income or return is generated out of the said investment. Studies relating to this supply of credit generally have positive relations with the farm/business income. Whatever investment the farmer makes would be fruitless, if it fails to augment their income. In order to ascertain the benefits of all investments, it is necessary to estimate the monetary benefits resulting from the investment.

Increase in farm income as a result of new investment is estimated either by following the 'with' or 'without' approach i.e. comparing the income of those who have availed themselves of loan, with the income of others who have not taken any bank credit in the same group or by following 'before' and 'after' approach to i.e. comparing the income of the loanees in the pre-loan and post-loan periods.

Here, the impact of long term credit on production/agricultural income of borrowers is assessed by the second method i.e. by comparing the Pre-loan and Post-loan income of the borrower for ascertaining the incremental income resulting from the bank loan. A gestation period of four years is given on the presumption that the yield from investment may be generated only after three to four years of investment. In Karwar Taluk, the farmers are usually following a mixed cropping pattern. Hence, the measurement of the impact of credit on all the crops cultivated by a farmer in an area seems difficult, particularly in this context because all the crops cultivated during the pre-loan period may not be there or some other crops not cultivated earlier might be grown in the post-loan period. Hence, and assessment of the monetary returns from all crops in the two periods would give a more meaningful comparison rather than the quantity of the yield.

A comparison of the agricultural/production income of the sample 50 borrowers between the pre-loan and post loan period shows that there is considerable increase in the income generated from the programmes/ financed investments.

TABLE 4.9

Mean of Pre-Total Income	Mean of Post-Total Income	Increase
6300	16000	9700

Source: Field data

To summarize, the long term credit granted by Syndicate bank has generated considerable income from the investment. In spite of inadequate credit supply complained by many respondents, the bank loan has helped in improving the economic status of the loaners.

IMPACT ON TOTAL INCOME

For analyzing the impact of Bank loan on the total income of beneficiaries, the average yearly income of respondents i.e. aggregate income from investment, income from other sources like salary, and income of other members in the family from different sources in the pre-loan and post-loan periods are compared and analyzed. While calculating the average income of the sample loanees in the two periods, only gross income is taken into account. The net income could not be worked out since the cost data available before four years was not realistic or could not be recollected properly by most of the respondents.

TABLE 4.10

Pre-Total Income (Mean)	Post-Total Income(Mean)	Increase
23500	40400	16900

Source: Field data

The above table shows that there is significant increase in the average total income of the respondents between the two periods i.e. pre-loan and post-loan periods. However, this high increase in the average income in post-investment period may not be merely due to the new investment resulting from bank loan because agricultural / production income is only a part of the total income. Hence, an attempt is made to find out the share of agricultural / production income in the total income in the two periods i.e. pre-loan and post-loan period.

TABLE- 4.11

Pre-loan Period		
a.	Pre-Agri Income	6300
b.	Pre-Total Income	23500
c.	% of Agri Income in Total Income	26.81
Post-loan Period		
a.	Post-Agri Income	16000
b.	Post-Total Income	40400
c.	% of Agri Income in Total Income	39.60
Increased share of Agri (%)		12.79

Source: Field data

A loan is considered feasible, generally when an increased return is generated from that investment and this return contributes significantly to the total income of the borrower and thereby improves his overall economic position. This is the basic idea behind any loan scheme. Here it is seen that after taking long term loan for agricultural activities there is considerable increase in the agricultural income of the respondents. This increase in agricultural/production income is reflected in the growth in the total income of the respondents. The bank has to keep an eye on the end use of loan and provide the necessary technical know-how, if the desired results are to be accomplished.

CREDIT UTILIZATION

Credit has become the sine qua non in the new strategy of agricultural development. The credit is said to be the life-blood of agriculture and rural development. However, credit alone is not the solution for all the problems, but a means to an end. Credit serves a useful purpose only when used for productive purposes. Credit may be easily compared to a sharp-edged knife, proper utilization of it generates usually higher productivity, thereby more prosperity, whereas its utilization deprives the borrowers of the extra income they could have earned by using it, besides retarding credit flow.

Utilization of loan is one of the prime factors in the field of rural finance to boost production. Anyhow, mis- utilization of credit has been identified as the most severe problem in rural financing. Keeping this in view, an attempt is made here to examine the credit utilization pattern of sample borrowers.

In Syndicate bank, the sanctioned loan amount is usually disbursed in installments. Hence, misuse of credit is less when compared with co-operatives. Even then, some of them were found to have diverted the installment or have influenced the field supervisors in obtaining second and subsequent installments with the result that the amount is put to unproductive purposes.

TABLE-4.12 UTILIZATION PATTERN OF LOANEES

Utilization Pattern	No. of borrowers	%
Full utilization	33	66
Part misutilization	07	14
Full misutilization	10	20
Total	50	100

Source: Field data

An examination of the utilization of the Syndicate Bank credit by the sample borrowers(Table-4.12) reveals that out of 50 selected borrowers 66% of them utilized the credit in full, while 7 have utilized the credit partially only for the stated purposes. The remaining 20% of the borrowers misused completely the amount of bank loan.

REASONS FOR MISUTILIZATION

In addition to the above, enquiry was made to extract the reasons for misuse of Syndicate Bank credit among sample loanees. Table -4.13 shows that 59 % of the misusers had used the bank loan intentionally for other purposes, while 12 % of them opined that inadequate financing forced them to divert funds for other purposes rather than going in for an incomplete investment. However, 29 % of the borrowers diverted the loan amount to meet unexpected and urgent expenses. Thus, it can be concluded that the Bank should resort to lend only productive loans to minimize the misuse of long term credit.

TABLE-4.12

Reasons	No. of Borrowers	%
1. Unexpected Expenses		59
2. Took money for other purposes intentionally	2	12
3. Inadequacy of bank loan	5	29
Total	17	100

Source: Field data

OVER DUES

Repayments of loans are an important indicator of the management efficiency in terms of credit evaluation, specialized skills and follow up. The assumption while providing credit is that its application to production increases output generates enough income which in money terms would be sufficient to repay the loans together with interest and leave a reasonable surplus to the borrower. Credit is said to be effective only if this basic postulate is borne out.

A study on the recovery of loan amount essentially means an assessment of the overdue. The amount due from the borrower by certain date but not collected by that date is called overdue. The accepted standard of measurement of overdue is in relation to demand. The rationale for demand as the standard base for assessing the recovery position is that it is the quantum of loan which had fallen due and not those which are yet to become due for repayment. Here in Syndicate Bank the borrowers have to pay penal interest, if they fail to repay their dues in time.

TABLE-4.14 OVERDUE OF THE SAMPLE BORROWERS (AS A % TO DEMAND)

Over dues as a % to total demand	No. of beneficiaries	%
Nil	13	26
1-40%	09	18
40-75%	10	20
75-99%	08	16
100%	10	20
Total	50	100

Source: Field data

Table-4.14 shows that only 26 % of the sample borrowers are prompt repayers, while the balance 74% of them had not repaid either a part or whole of the demand or are defaulters. This figure throws light on the overdue situation existing in the Syndicate Bank.

TABLE-4.15 BORROWERS VIEW ON CAUSES FOR DEFAULT (IN PER CENT)

Particulars	No. of borrowers	%
1. Crop failure	12	24
2. Inadequate income generation	06	12
3. Installment of repayment too high	03	06
4. Repayment schedule not suitable	02	04
5. Misutilization	04	08
6. No specific reasons/ hope of writing off debts	23	46
Total	50	100

Source: Field data

With a view to ascertaining the borrower's perception of the causes of defaults, the following information is also collected from the respondents. The findings of the survey (Table-4.15) revealed that crop failed is one of the factors to which 24% of the respondents attributed their defaults. An equally important factor cited by 12% of the respondents is the inadequate income generation, 8% misutization seems to be an important cause of non-repayment, however, the largest percentage of respondents i.e. 46% of the respondents did not indicate any specific reason or opined that they 'wilfully' did not repay in the hope of writing off of dues by the Government.

SUGGESTIONS

On the basis of the above findings, a few suggestions are made in this part of the report to improve the performance of Syndicate bank so as to enable the borrowers to derive maximum benefits.

1. It is observed that the quantum of assistance provided to the beneficiaries is insufficient for the proposed investment programme. This is because of the unscientific fixation of unit costs of various projects. This fixation of low unit cost leads to misutilization of bank credit.

So steps are to be taken for the scientific fixation of unit costs after taking into consideration various aspects of the scheme and the unit cost fixed should be flexible and capable of making changes to cope with the inflated prices.

2. No systematic attempts have been made to formulate schemes suitable for specific areas after making an inventory of local resources at the village, block and district level. For Example, though areca nut financed by syndicate bank could increase the income of the borrowers the marketing problems faced by the growers has dampened their enthusiasm resulting in low take off of credit from the bank.

Thus, there is a need for conducting feasibility study of new schemes in specific areas before their implementation.

3. It is observed that some borrowers take loan for unproductive purposes by influencing the field supervisors/ bank officers. This unhealthy practice by some supervisors should be strictly dealt with.

Again there is the need for strengthening of credit supervision. The bank should take steps to recover the loan amount immediately at a high rate of interest from misusers. The setting of a 'Monitoring and Evaluation Cell' in the bank will help in the systematic monitoring of the projects financed which can help in minimizing misuse of bank credit to a great extent.

4. Governments for their political advantages give moratorium on farm credit, waive off interest on agricultural loans, write off agricultural debts and disburse loans in loans melas, all these have contributed significantly to the misuse of credit and bad recovery of dues.

Agricultural credit should not be used as an instrument for achieving political purposes and hence writing off of agricultural debts should not be encouraged. The Government should take a stern and stable policy in this direction.

5. Accumulations of over dues constitute a major syndrome affecting the working of Syndicate Bank. The percentage of overdue to demand works out to be an alarmingly large future.

Thus, there is a need for long term recovery strategy envisaging annual recovery targets. Targets may be fixed for each bank officer and efforts should be taken to achieve them. Some sort of incentives like increment, cash prize etc. may be given to these officers. This measure can keep the overdue level within a controllable limit.

6. The target group-oriented approach in lending to small and marginal farmers due to pressure from Apex bank and NABARD has led to irregular lending and inaction against defaulters. Many small borrowers take the privilege of being in the target group and misuse it. In this study it is observed that the misutilization of the bank credit is at a higher rate among the small and marginal farmers/ borrowers.

Thus, the real task lies in identifying the real Borrower/farmer and not merely the small farmer / borrower.

7. Lack of technical assistance, particularly to the rural masses is a major drawback. There is no special cadre of officers to evaluate the proposals or prepare feasible and economically viable schemes suitable to the rural masses. Mere financing will in no way help the farmers/ artisans without evaluating the viability or feasibility of the investment proposal.

Thus, technical assistance is also important besides, financing. The bank should guide the borrowers and help them to choose the right agricultural activities.

8. Educating the borrowers towards true use of credit and watching the utilization of loans in accordance with the loan agreement.
9. Instituting a system of accountability, responsibility and incentive rewards for good performance in disbursement and recovery of loans.
10. To inculcate repayment ethics amongst the borrowers by organising frequent training/ counselling camps, high-lighting the duties and responsibilities of both the prospective and existing borrowers.

To sum up, credit alone is not the major determinant of agriculture growth. The establishment of adequate infrastructure, extension services, storage and processing facilities hold the key for the growth of the agriculture sector. However, bankers are ignorant of the fact that they can play a pivotal role in this segment. Commercial banks have to join hands with government agencies, local bodies/ organisations, and invest in the much needed rural infrastructure. The National Bank for Agriculture and the Rural Development should formulate a scheme and provide proper guidance to commercial banks for investing in rural infrastructure.

Banks should evolve a simple and effective credit delivery system for agriculture. This will enable them to achieve the target and facilitate the growth of the agriculture sector, which can in turn proper growth in other sectors of the economy.

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MICRO FINANCE AND SELF- HELP GROUPS – AN EXPLORATORY STUDY OF SHIVAMOGA DISTRICT

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ABSTRACT
Micro Finance Though Self Help Groups has been able to score over the weakness of formal tending institutions, since the commercial banks were urban and profit oriented their inclination towards rural poor was limited. Women led self Help Groups in many parts of the country have achieved success in brining women into main stream of decision making, hence, it is evident that Self Help Groups have become a viable organisational set up to disburse micro credit to women and encourage them to enter into entrepreneurial activity. SHGs contributed significantly to the development of women entrepreneurs and also for overall development of the economy. After independence from colonial economic explosion, primarily the national primary in Nation's planning programme was premising aimed at uplifting of the poor through their integration with nation's development, the public sector was provided a commanding position in the industrial policy adopted in the year 1956. The process of poverty eradication by providing gainful employment to the rural mass got strengthen.

KEYWORDS
Micro finance, Self help groups**,** Microfinance and self help groups

INTRODUCTION
Commercial banks are one of the important elements of the economy and normally referred as its mirror. Social banking is also considered as an economic activity as it involves social desirable investments for achieving development goals with a particular focus on the poor was observed at the mid sixties are industrial sector was accounting for about 25% of national output using tow – third of commercial banks credit and agriculture sector with the contribution to the national output at above 80% was virtually reflected by the commercial banks. Huge credit gaps were observed with respect to less section of the economy and a study group of the National Credit Council was formed in the year1969.

After independence from colonial economic explosion, primarily the national primary in Nation's planning programme was premising aimed at uplifting of the poor through their integration with nation's development, the public sector was provided a commanding position in the industrial policy adopted in the year 1956. The process of poverty eradication by providing gainful employment to the rural mass got strengthen.

EMERGENCE OF MICROFINANCE IN INDIA
The post-nationalization period in the banking sector 1969, witnessed a substantial amount of resources being earmarked towards meeting the credit needs of the poor. There were several objectives for the bank nationalization strategy including expanding the outreach of financial services to neglected sectors (singh2005). As a result of this strategy, the banking network underwent an expansion phase without comparables in the world. Credit came to be recognized as a remedy for many of the ills of the poverty. There spawned several pro-poor finical services, support by both the state and central government, which included credit packages and programs customized to the perceived needs of the poor. Support by both the state and central governments, which included credit packages and programs customized to the perceived needs of the poor.

While the objectives were laudable and substantial progress was achieved, credit flow to the poor, and especially to poor women remained low. This led to initiatives that were institution driven that attempted to converge the existing strengths of rural banking infrastructure and leverage this to better serve the poor. The pioneering efforts at this were made by National Bank for Agriculture and Rural Development (NABARD), which was given the tasks of framing appropriate policy for rural credit provision of technical assistance backed liquidity support to banks, supervision of rural credit institutions and other development initiatives.

In the early 1980s, the government of India launched the Integrated Rural Development Program (IRDP), a large poverty alleviation credit program, which provided government subsidized credit through banks to the poor. It was aimed that the poor would be able to use the inexpensive credit to finance themselves over the poverty line. Also during this time, NABARD conducted a series of research studies independently and in association with MYRADA, a leading non-governmental organisation (NGO) from southern India, which showed that despite having a wide network of rural bank branches servicing the rural poor, a very large number of the poorest of the poor continued to remain outside the fold of the formal banking system. These studies also showed that the existing banking policies, systems and procedures, and deposit and loan products were perhaps not well suited to meet the most immediate needs of the poor. It also appeared that what the poor really needed was better access to these services and products, rather than cheap subsidized credit. Against this background a need was felt for alternative policies, systems and procedures, savings and loan products, other complementary services and new delivery mechanisms, which would fulfill the requirements of the poorest, especially of the women member of such households. The emphasis therefore was on improving the access of the poor to microfinance rather than just micro –credit. To answer the need for microfinance from the poor, the past 25 years has seen a variety of microfinance programs promoted by the government and NGOs. Some of these programs have failed and the learning experiences from them have been used to develop more effective ways of providing financial services. These programs vary from regional rural banks with a social mandate to MFIs. In 1999, the government of India merged various credit programs together, refined them and launched a new programme called Swaranjayanti Gram Swarazagar Yojana(SGSY). The mandate of SGSY is to continue to provide subsidized credit to the poor through the banking sector to generate self-employment through a self – help group approach and the program has grown to an enormous size.

The most acceptable definition of micro finance is the provisions of first credit on other financial services and products of very small amount to the poor in rural, semi-urban and urban area to enable them to raise their income level and improving standard of living. The micro finance services unlike direct credit to weaker sections and loan under survey banking institutions have discretion to determine rate of interest on micro credit.

MICRO FINANCE AND SHGS

The programme of micro finance through Self Help Groups with the support from the government has shown many positive impacts on rural poor women. It was become a powerful instrument in providing access of banking services to poor and also in mobilizing their small savings. Many studies like Rajashekar (2000), Kumaran (2001), Kakadhar (1997), Maunder (1997), NABARAD (2002) highlights the Self Help Groups have circulated the savings habits among the poor, enable the rural household to take up larger productive activities, empower the poor women, decrease the dependency on exploitative local money lenders. A study NABARD shows that there have been perceptible and of assets, borrowing capacities, income generating activities, income level and increase in savings.

DEVELOPMENT OF SELF HELP GROUPS IN SHIVAMOGA DISTRICT

Self Help Groups are established in the 2000-01. Karnataka State has got 175 taluk areas these Self Help Groups has been established in all the taluks and it has become mandatory for all Self Help Groups to come under the Montessori which are in that area. The main aim of the Self Help Groups is to uplift the women who are in the rural and backward areas and the works for the development of women entrepreneurs which further helps in increasing the income of women in rural areas and its going to save huge amount of money and it also help in increasing the standard of living of the people living in the rural areas. The main intention was to establish 4400 Self Help Groups in the year 2006-07 in 6 taluk areas and has been achieved by government of Karnataka and has been achieved by government of Karnataka and in the year 2007-08. They wanted to establish 333 Self Help Groups in these areas.

STATEMENT OF THE PROBLEM

Self Help Groups playing a very important role in the economic development. SHGs are formed for the purpose of empowerment of women. In this study we found that the several problems faced by the SHGs like lack of financial support, lack of education, lack of good management, lack of training and motivation programmes and there is no well family support to the women'. To offer suggestions to these problems the study has been conducted.

OBJECTIVES OF THE STUDY

1. To examine the working of SHGs in Shivamoga District.
2. To analyze the savings and credit dimensions of the SHGs
3. To examine the functioning and performance of SHGs

METHODOLOGY FOR DATA COLLECTION

For the purpose of successful completion of this research paper the study aimed to gather information from both primary and secondary data.

Primary Data: The required primary data has collected from distributing the structured questionnaire to SHGs and by visiting some Self Help Groups in Shivamogga for conducting direct interview to gather information.

Secondary data: The related secondary data has collected and gathered from the published sources like books, journals, newspapers and internet sources etc.,

SCOPE OF THE STUDY

The present study has been restricted to working of SHGs in Shivamoga District. Among these only small Self Help Groups have been taken into consideration for this study.

ANALYSIS

TABLE1.1: CLASSIFICATION OF THE RESPONDENTS BASED ON AGE GROUP

Age (in years)	No. of Respondents	Percentage (%)
20-25	20	13.79
26-30	45	31.03
31-35	25	17.24
36-40	30	20.68
40 and above	25	17.24
Total	145	100

Source: Field survey

From the above table it is clear that among 145 respondents 13.79% belongs to the age group of 20-25 years, 31.03% belongs to the age group of 26-30 years, 17.24% of the respondents are belonged to the age group of 30-35 years and above 40years and 20.68% belongs to the age group of 36-40 years.

TABLE1.2: CLASSIFICATION OF THE RESPONDENTS BASED ON THEIR EDUCATIONAL QUALIFICATION

Education	No. of Respondents	Percentage (%)
SSLC	63	43.44
PUC	48	33.10
Degree	20	13.79
Post graduation	4	2.75
Others	10	6.89
Total	145	100

Source: Field survey

From the above table it's clear that majority of respondents are belongs to SSLC level it account for 63 its works out to 43.44%, 48 respondents are belongs PUC level educational background its works out 33.10%, 13.79% of the respondents are post graduates and finally 6.89% of the respondents are belongs to other qualification

TABLE1.2; CLASSIFICATION OF THE RESPONDENTS BASED ON THEIR OCCUPATIONAL BACKGROUND

Occupational Background	No. of Respondents	Percentage (%)
Agriculture	39	26.89
House wife	73	50.34
Business	14	9.65
Others	19	13.10
Total	145	100

Source: Field Survey

From the above table it's clear that among 145 respondents 26.89% of respondents are belongs to agricultural background, 50.34% of the respondents are belongs housewife, land 33 respondents are belongs to business and others.

TABLE1.4: RESPONDENTS BASED ON THEIR MARITAL STATUS

Marital Status	No. of Respondents	Percentage (%)
Married	94	64.82
Unmarried	35	24.13
Widow	15	10.34
Total	145	100

Source: Survey data

From the above table 64.82% of respondents 64.82% of the respondents were married, 24.13% of the respondents are unmarried and remaining 10.34% of the respondents are widow.

TABLE 1.5: RESPONDENTS BASED ON THEIR MONTHLY INCOME

Monthly income	No. of respondents	Percentage (%)
Below 10,000	84	57.93
11,000-20,000	61	42.06
21,000-30,000	0	-
Total	145	100

Source; Field Survey

The above table shows that 57.393% of respondents have monthly income bellow 10,000 and 42.06% respondents have their monthly income of Rs.10,000-20,000.

TABLE 1.6: RESPONDENTS BASED ON LINKING WITH THE SELF HELP GROUP

No. of years they were link with SHGs	No. of Respondents	Percentage (%)
Bellow 2 years	67	46.20
2-4 years	44	30.34
4-6 years	22	15.17
Above 6 years	12	8.27
Total	145	100

Source: Field survey

Analysis of the contents of the above table shows that 46.20% of Respondents are joined SHGs from lost 2 years back, 30.34% of respondents are working with SHGs from 2-4 years, 15.17% of the respondents are working with SHGs from 4-6 years and remaining 8.27% of respondents are working with SHGs from 6 years.

TABLE 1.7: RESPONDENTS BASED ON THEIR SAVINGS PER WEEK

Savings per week (in Rs.)	No. of Respondents	Percentage (%)
10-20	78	53.79
21-30	40	27.58
31-40	15	10.34
41-50	12	8.27
Total	145	100

Source: Field Survey

From the above table it's clear that 53.79% of members save Rs.10-20 per week, 27.58% of the members save Rs.20-30, and 10.34% of members of save Rs.30-40 per week and remaining 8.27% of members save Rs.40-50 per week.

TABLE 1.8: RESPONDENTS BASED ON INCOME LEVEL AFTER JOINING SELF HELP GROUP

Income level	No. of respondents	Percentage (%)
Low	-	-
Medium	60	41.37
High	85	58.62
Total	145	100

Source: Field Survey

After Joining the SHGs the income level of the respondents are 41.37% medium income level and remaining 58.62% of respondents income level is high

TABLE 1.9: RESPONDENTS BASED ON LOANS/SUBSIDY TAKEN

Loans/ Subsidy	No. of respondents	Percentage (%)
Yes	145	100
No	-	-
Total	145	100

Source: Field Survey

The above table clearly indicates that 100% of the respondents have taken loans in SHGs.

TABLE 1.10: RESPONDENTS BASED ON SUBSIDY UTILIZED

Subsidy Utilized	No. of Respondents	Percentage (%)
Agriculture	34	23.44
Home industry	28	19.31
Dairy activities	18	12.41
Poultry activities	05	3.44
Jewellary	30	20.68
Home construction	20	13.79
Family expenses	10	6.89
Total	145	100

Source: Field Survey

From the above table it is clear that 23.445 of the respondents are utilizing subsidy amount for agricultural activity, 19.335 of the respondents are using subsidy amount for Dairy activity, 12.41% of the respondents using subsidy amount for Poultry forms activities, 20.68% of the respondents are using subsidy amount for purchase jewellary and remaining 30 respondents are using subsidy amount for construction of house and family expense**s.**

FINDINGS

1. 31.03% of the respondents fall in the age group of 26-30 years.
2. Majority of the respondent's Educational background is PUC.
3. Most of the respondents are house wife which accounts for 73.
4. 57.93% of the respondents are having monthly income of bellow 10,000.
5. 53.79% of respondents save their money for at least Rs.10-20 per week
6. Majority of the respondents are taken loans/subsidy from SHGs
7. Majority of the respondents are utilizing the subsidy or loan for agriculture and purchase of jewellary.

SUGGESTIONS

1. The Government and NGO's have to take necessary steps to create awareness in the minds of women especially the woman who are crossing 35 years.
2. The Government has to formulate the strategies and policies for the improvement of literacy rate.
3. The Financial institutions have to come forward to provide financial assistance to improve their income level.
4. A large number of self Help Group member are using subsidy for ;unproductive purpose like, purchase of jewellary, household expenses, marriage, festivals etc., but the banks and financial institutions have bring the strict rules and regulation stated that they should use it for the purpose of economic activities.

CONCLUSIONS

Micro Finance Though Self Help Groups has been able to score over the weakness of formal tending institutions, since the commercial banks were urban and profit oriented their inclination towards rural poor was limited. Women led self Help Groups in many parts of the country have achieved success in brining women into main stream of decision making, hence, it is evident that Self Help Groups have become a viable organisational set up to disburse micro credit to women and encourage them to enter into entrepreneurial activity. SHGs contributed significantly to the development of women entrepreneurs and also for overall development of the economy.

Hence, it is evident that sthree Shakthi Groups has significantly contributed for the development of women in a number of ways independence brought women and promise equal opportunity in all spheres to Indian women and laws for their equal rights of participation in political process and equal opportunities and rights in education and employment but the majority of the urban middle class women are still unaffected by changes and development activity.

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INFORMAL SMALL SCALE BRICK-KILN ENTERPRISES IN GULBARGA URBAN AREA – AN ECONOMIC ANALYSIS

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ABSTRACT

The present study is attempts to examine the performance of brick-kiln enterprises in Gulbarga urban area. Brick-kiln enterprises provide employment to large number of workers. It is one of the labour intensive industries and used the local resource. One half of the world's population, approximately 3 billion people on six continents, lives or work in building constructed of earth and 58 percent of all building in India are of mud bricks. The brick-kiln activities are generated income and output. The large number of the brick-kiln units are face many problems in the study region viz., raw materials, product market, credit facilities, and technology. The NBFCs and some of the Nationalised banks have lending money to brick-kiln industry. The brick-kilns are in the urban informal sector but they are solely responsible for rapid expansion of urban area and faster growth of construction activity in the Gulbarga city.

KEYWORDS
Brick-Kiln Enterprises, Gulbarga, Employment, Labour.

INTRODUCTION

India, though a fast growing economy, yet contains a big size of production in the informal sector. This production, even if valued at current prices, would be in several not thousand but lakhs and lakhs of crores of rupees. The informal sector is like a shadow following the formal or organised sector. The size of informal sector is substantially great especially in the semi urban and moffosil cities. The sector also provides employment to millions of people. As these activities, and originated output, income and employment, are undertaken by an individual or group of individuals not coming under the regulation of any of the formal authorities, may be defined as informal sector[1]. Similarly, such activities are also the activities which do not engage labour from labour market. The firms also do not resort to formal borrowing from banks or any other NBFCs. The informal sector is also called unorganized sector[2]. Because, the production units are totally independent and manned by the persons individually. These persons have no organisations or associations. There is also more often than not, no unique place or area either for location or for getting production inputs.

There are also no labour unions or association among the labourers. Some of the units are in close clusters or greatly scattered. Besides, it is to be noted that there is great demand for bricks. It may be termed as ever green demand for bricks because "one half of the world's population, approximately 3 billion people on six continents, lives or works in buildings constructed of earth. Approximately 58% of all buildings in India are of mud brick and a growing construction boom in India, coupled the inability of peasants to support themselves by farming is turning residents from the country side into the brick making business.

However, hand made mud brick are now often dried and fired in inefficient coal fueled kilns that make the work dangerous and pollute the environment consuming 200 tonnes of coal for every million brick production[3]".

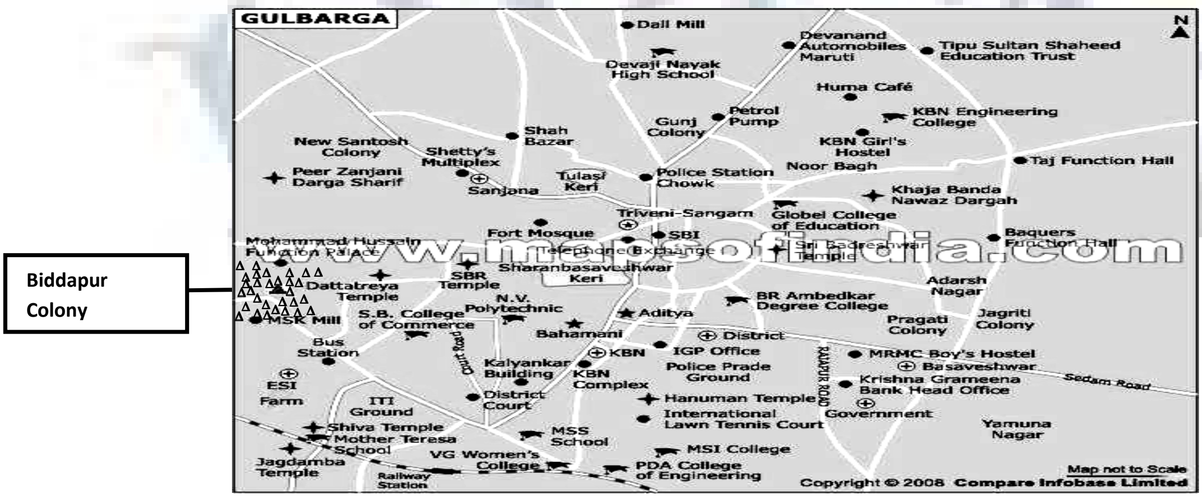
Since the brick manufacturing is an informal or unorganized activity, quite surprisingly there is no organised or formal literature available on this activity[4]. Therefore, the purpose of this paper is to make an economic analysis of brick-kiln industry existing in Gulbarga urban area. In that the attention is given to details of production and employment in brick-kiln industry. For convenience it is divided into following parts: The first part provides information regarding the nature of the survey, location, nature of data etc adopted in the study. Production and cost of bricks manufacturing units are noted in part-II and III respectively. Wages and employment aspects of bricks units are discussed in part-IV. Brick incomes are noted in part V, a critical evaluation and emerging conclusion are noted in part-VI.

NATURE OF THE SURVEY

Gulbarga is a big district and situated in the northern part of Karnataka State. It occupies a central place with Bidar to its north and Raichur to its south. It lies between east longitude 76º04' and 77º42' and north latitudes.

The average annual rainfall in the district is 715.5 mm (28.17'). The mean daily maximum temperature during this month is 40.6ºC (105.1ºF) and the mean daily minimum temperature is 25.9ºC (78.6ºF). The period from December to May is the driest part of the year when the relative humidity in the morning is between 40 and 60 percent, and in the afternoons above 20 to 30 percent. Overlying the Deccan traps and the Bhimas, there are thick spreads of black soil, some of which are as much as 30 feet in Gulbarga district. Therefore, we have selected the brick making activity in Gulbarga city (see from Gulbarga District Gazetteer 2005). The huge unemployment among the unskilled workers, the black soil available for brick making and not only hot temperature but less number of rainy days, the Gulbarga city is ideally suited for brick making in atleast two seasons of a year.

GULBARGA CITY: BIDDAPUR COLONY



N.B: The dots in the triangle indicate the brick-kiln taken as our sample.

There is no published data or information about the brick making units. Further, the brick makers do not keep any record relating to the entire process of brick making and marketing. As they are managed informally, there is no record kept by them regarding the inputs, number of labourers employed, the materials used, the inventory of bricks, output sold, price that is fixed and income generated. The brick-kilns are also unorganised in terms of location, the source of basic input mud, coal, ash and water etc. Therefore in order to get the data and information, a detailed questionnaire has been personally administered to each brick manufacturer. For the purpose of the study, we have selected 30 units on the random basis. In fact there are about 85 units but 50 of them have been shifted to far off places. Because, the area has been taken of by government and have constructed a High Court Bench of Karnataka. All the sample units are located in the North West (Biddapur Colony see map) of Gulbarga city have been selected for purpose of the present study, all of them are located in one cluster. The brick manufacturers being in the informal sector were very shy in the initial stage but in the due course of the survey they tried to give correct data and information as much as possible[5].

The survey schedule was designed to collect information among other things, the age, size of the family, educational level, number of years in brick making, place of mud available and its distance, source of water and its cost, the coal and its quantity obtained from the sources (Shahabad, Wadi, Raichur, Hyderabad and Sedam). The number of persons, nature of employment provided, type of wage system prevailing in brick-kiln, cost and method of transportation of mud and bricks, price of bricks, etc. The data relating to daily capacity of production, days of production have been given by them with some approximation. The data relating to income and expenditure have been taken as per their reporting. Similarly price of raw materials cannot be worked out as they do not keep records on the material. They do not have precise figures relating to fuel cost, water charges, transport charges etc. Therefore, the economic analysis of these units largely depend on physical production, income per day, expenditure per day, price per brick and wages paid to the workers (Ad -Valorem and specific)[6] information given by brick manufacturer and workers.

PRODUCTION

SYSTEMATIC ARRANGEMENT OF BRICKS

The brick manufacturing in Gulbarga is completely indigenous and manual. In other words it is entirely based on labour and no technique or technology has been adopted. The main inputs of brick output are mud, water, coal, ash and rock etc. Besides, it is not possible to arrive at a segregate the input cost, either itemwise or all the input together[7]. The water is no less important input for making bricks. However, there are number of problems and difficulties in calculating water charges[8]. The quantity of coal and ash used in burning and making the bricks is also an important input. However calculating cost of coal and ash is no less problematic, atleast in working out the cost[9]. However, with the help of information given by unit owners attempt has been made to calculate the quantity of bricks produced by them during one season that is 2007-2008. Indeed, it has been found from our survey that, the brick manufacturers keep records neither relating to the value or cost of inputs (itemwise, unitwise) to nor the value of output.

TABLE – 01: PRODUCTION OF BRICKS

Brick line	Daily Production	No of Days	Total Production of Bricks	Percentage
1	10000	180	18.0	1.0
2	6000	180	10.8	5.0
3	6000	150	9.0	4.4
4	5000	180	9.0	4.4
5	5000	180	9.0	4.5
6	5000	120	6.0	3.0
7	5000	180	9.0	4.5
8	5000	180	9.0	4.4
9	5000	180	9.0	4.4
10	5000	180	9.0	4.4
11	5000	120	6.0	3.0
12	4000	180	7.2	3.6
13	4000	150	6.0	3.0
14	4000	210	8.4	4.1
15	4000	180	7.2	3.6
16	4000	210	8.4	4.1
17	3500	180	6.3	3.1
18	3500	240	8.4	4.2
19	3000	150	4.5	2.2
20	3000	210	6.3	3.1
21	3000	180	5.4	2.6
22	3000	210	6.3	3.1
23	3000	180	5.4	3.2
24	3000	150	4.5	2.2
25	3000	210	6.3	3.1
26	3000	150	4.5	2.2
27	3000	210	6.3	3.1
28	2500	180	4.5	2.2
29	2000	240	4.8	2.3
30	2000	210	4.2	2.0
Total		**5460**	**218.7**	**100.00**

Source: Field Survey.

Similarly they do not also keep records relating to output per day and number of days that production has been undertaken. All these are simply based on their personal experience and memory on which we had to depend. However the total production of these sample units has been 9.0 lakhs bricks produced by each one of them. The other remaining 21 manufacturers total seasonal output is from 4-8 lakhs bricks. On the whole, the 30 sample units have manufactured 218.7 lakhs bricks during the year 2007-08. As the production data have been subject to frequent revisions due to the information given by producers, it may be observed from the table that there is only one producer whose daily production is 10,000 bricks and his production period is for 180 days. As a result, his total production is 18.0 lakhs. Similarly the second brick manufacturers daily production is 6000 and total brick production is 10.8 lakhs bricks. There are about 7 brick manufacturers serial no. (3, 4, 5, 7, 8, 9 and 10) whose daily production is different from each other. Further, the number of days of production is also differing between them.

COST OF BRICK MANUFACTURING

The calculation of the cost of brick manufacturing is a matter of great nightmare for a researcher. Because not only brick manufacturing is indigenous and manual, it is a lengthy process of organising several activities stage by stage. For example to begin with the brick- kilns require the main input that is the mud. The unit owners have to pay for the mud (i.e., annually) the payment for the mud is a contract payment of Rs.25000 to 50000 per acre. Further the mud has to be transported to the place of brick manufacturing for which they have to pay the transport cost. Similarly they have to pay for the water. The handmade bricks have to be made and burnt with the help of ash and coal. Therefore, there is the cost of coal as other item enters into the total cost of brick manufacturing. At every stage of calculation of cost the confirmation from the unit owners is very essential. For calculation of cost might likely to go wrong. Hence with these preliminaries the cost of production for 30 units of our sample has been attempted in Table-02.

It is evident from the Table-02 that there are four types of costs (excluding labour cost which is noted in the following part) involved in the making of bricks. The total cost of coal is about Rs.107.02 lakhs. Among the 30 units of our sample except the first, which has the cost of coal of Rupees 9 lakhs all other units have the cost of coal ranging between Rs. 2–5 lakhs. The unit No. 29 has the lowest cost of coal i.e., Rupees 0.24 lakh only. The water is another important input used in the process of brick making. The brick makers have differing arrangement of getting water to the kiln. For example some units get the water through the pipeline and the source is a little away from the place of brick making. Some brick- kilns have their own borewells, whereas some of the brick manufacturers jointly share the cost of electricity in pumping the water from the borewell. The total cost of water for the sample units has been Rupees 21.06 lakhs. All the brick- kilns have very low cost of water. Because the underground water is the only source from which they get it right at the place of brick manufacturing[10].

TABLE – 02: COST OF BRICKS MANUFACTURING (RS. IN LAKHS)

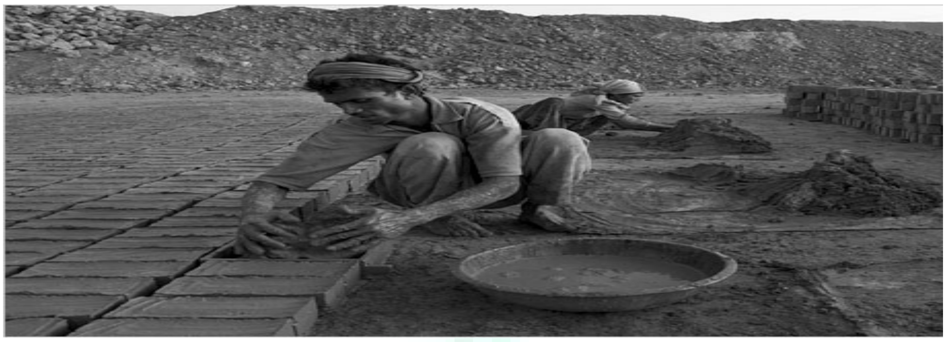
Brick line	Cost of Coal *	Cost of water **	Cost of Mud Rs. In Per Acre	Transportation cost of mud ***	Total Cost
1	9.00	1.80	0.50	6.00	17.3
2	5.40	1.08	0.45	3.60	10.53
3	4.50	0.90	0.46	3.00	8.86
4	4.50	0.90	0.40	3.00	8.8
5	4.50	0.90	0.40	3.00	8.8
6	3.00	0.60	0.41	2.00	6.01
7	4.50	0.90	0.42	3.00	8.01
8	4.50	0.90	0.40	3.00	8.8
9	4.50	0.90	0.41	3.00	8.81
10	4.50	0.90	0.40	3.00	8.8
11	3.00	0.60	0.40	2.00	6
12	3.60	0.72	0.30	2.40	7.02
13	3.00	0.60	0.30	2.00	5.9
14	4.20	0.84	0.03	2.80	7.87
15	3.60	0.72	0.30	2.40	7.02
16	4.20	0.84	0.30	2.80	8.14
17	3.15	0.63	0.30	2.10	6.18
18	4.20	0.84	0.29	2.80	8.13
19	2.25	0.45	0.31	1.50	4.51
20	3.15	0.63	0.30	2.10	6.18
21	2.70	0.54	0.33	1.80	5.37
22	3.15	0.63	0.30	2.10	6.18
23	2.70	0.54	0.32	1.80	5.36
24	2.25	0.45	0.30	1.50	4.5
25	3.15	0.63	0.25	2.10	6.13
26	2.25	0.45	0.30	1.50	4.5
27	3.15	0.63	0.30	2.10	6.18
28	2.25	0.45	0.25	1.50	4.45
29	0.24	0.48	0.25	1.60	2.57
30	2.10	0.42	0.25	1.40	4.17
Total	**107.02**	**21.06**	**9.93**	**72.90**	**210.91**

Source: Field Survey.

Note: * RE 0.50 per brick is the cost of coal.
** The cost of water is 10 paise per brick
*** Rs. 500 per tractor of mud and divided by 1500 bricks one tractor.

The main input for making mud bricks is the mud. However, the mud is not available for the brick- kilns in the close by area, besides the mud is not available in the quantity that the brick-kiln owners require. That means they have to purchase the mud from the land owners who lease the land on a contract sum for the whole season. The total cost of mud of the 30 sample units has been Rs. 9.93 lakhs. Most of the brick makers pay Rupees 25000 – 50000 per season, per acre depending upon the location of the land. The transportation of mud from its place to the place of brick making is a very serious problem, because the brick-kiln owners do not have their own means of transport. They have to hire the tractors for this purpose. The tractor owners charge Rs. 500 per trip excluding the labour payment. The total cost of transporting mud by the sample brick-kiln owners is rupees 9.93 lakhs. The first sample unit has the highest transport cost of mud of Rupees 6.0 lakhs whereas 30th sample unit has the lowest cost of Rupees 1.4 lakhs. If we add up all the costs such as cost of coal, cost of mud, cost of water and cost of transport of mud we arrive at the total materials cost of making bricks, as we look at the table-02. The total material cost of bricks for the 30 units is Rupees 210.91 lakhs.

WAGES AND EMPLOYMENT



MANUAL PREPARATION OF BRICKS

As it is an informal activity, the brick manufacturing has its own wage cost to be included in the total cost. It provides wage employment to a large number of people at different stages of brick making.

The loading and unloading of mud provides opportunity to a group of people if the mud has to be transported by vehicles. In addition to wage employment for team workers the conversion of soil into soaked mud provides employment to 1 or 2 male and large number of female workers who make soaked mud fit for preparing raw bricks. The burning stage of bricks also needs some persons to be employed. The burnt bricks can be not spread to a great length of area.

TABLE-3 (A): WAGE COST

Brick Unit	Regular Workers			Contracted Wage			Total Wage Cost		
	M	F	Total	M	F	Total	M	F	Total
1	12	3	15	16000	14000	30000	192000	42000	234000
2	8	4	12	15000	9000	24000	120000	36000	156000
3	4	3	7	13000	12000	25000	52000	36000	88000
4	7	3	10	12000	8000	20000	84000	24000	108000
5	5	4	9	11000	10000	21000	55000	40000	95000
6	5	3	8	14000	12000	26000	70000	36000	106000
7	5	3	8	13000	12000	25000	65000	36000	101000
8	13	3	16	15000	10000	25000	195000	30000	225000
9	7	4	11	13000	12000	25000	91000	48000	139000
10	4	3	7	12000	12000	24000	48000	36000	84000
11	1	1	2	15000	10000	25000	15000	10000	25000
12	5	4	9	13000	12000	25000	65000	48000	113000
13	4	3	7	15000	10000	25000	60000	30000	90000
14	6	3	9	15000	10000	25000	90000	30000	12000
15	1	1	2	13000	12000	25000	12000	12000	25000
16	1	1	2	13000	12000	25000	13000	12000	25000
17	1	1	2	12000	8000	20000	12000	8000	20000
18	3	2	5	8000	9000	17000	44000	18000	62000
19	2	2	4	13000	12000	25000	46000	24000	50000
20	2	1	3	12000	8000	20000	24000	8000	32000
21	2	1	3	12000	10000	22000	24000	10000	34000
22	2	2	4	14000	11000	25000	28000	22000	50000
23	7	3	10	12000	12000	24000	84000	36000	120000
24	4	3	7	12000	10000	22000	48000	30000	78000
25	3	2	5	14000	12000	26000	42000	24000	66000
26	3	3	6	13000	11000	24000	39000	33000	72000
27	3	3	6	13000	12000	25000	39000	36000	75000
28	2	1	3	13000	14000	27000	26000	14000	40000
29	4	3	7	12000	12000	24000	48000	36000	84000
30	3	3	6	16000	8000	24000	48000	24000	72000
Total	**129**	**76**	**205**	**394000**	**326000**	**720000**	**1779000**	**829000**	**2481000**

Source: Field Survey.

NOTE: Wage rate per day for Male Rs. 120, Female RS 80 Wage paid to workers on the basis of no. of bricks precisely Rs. 160 for 1000 bricks for calculation see table one of column No. 4 part 2 above

Therefore the burnt bricks have to be arranged in a small place in a systematic manner. This, too provides employment to men and women. Lastly, when the bricks are sold, the bricks from the brick-kiln area have to be loaded in a tractor or truck. This too provides wage employment to men and women alike. Thus, the brick-manufacturing is completely labour intensive industry especially in the urban and semi urban cities such as Gulbarga. The brick making calls for separate wage cost in the process of production and sale of bricks. Therefore number of persons (male and female) employed and amount of wage paid by our sample brick manufacturers has been discussed in the following. For convenience the wage costs have been noted in 2 tables. The table 3-A represents the number of persons employed and contractual wages paid. They are known as regular workers. Because for the entire period of production they receive contracted or negotiated sum of money.

These workers include both male and female. For example the first brick-kiln owner provides employment to 15 persons, among the 15 there 12 male and 3 female. Similarly he gives contracted or negotiated total wage for the production season 16000 per male and 14000 for per female. Thus if we consider all the 30 units the regular employment is 129 male and 76 female. The total contract wage cost of both male and female for 30 units is Rs.2481000 as could be seen in the table-3(A) above. The approximate per head wage is Rs.12102.439. For each one of the regular worker similarly regular wage cost per unit is Rs.82700. besides, the regular workers the brick manufacturers provide daily wage employment to male and female workers. This cost situation for 30 brick-kilns due to providing wage employment is noted in Table-3(B).

There are 321 daily wage earners in the 30 sample brick-kilns. Among them, the male workers are 145 and 176 are the female workers. The daily wage for every male worker is Rs.120 and for female workers Rs.80 is paid per day. If, we see column No. 3 of the above table it gives the information about the number of days that the workers have worked. Accordingly the total wage cost for 30 units is Rs.2985600. In addition to daily wage, these workers also get brick based wage of rupees 160 for every thousand bricks. This wage cost is composite cost it is not possible to separate the payment made to regular and daily workers. Further it is also not possible to be imputed to male and female workers. Therefore, for convenience we have called it 'brick based wage cost' which has been given in Col. 6 of table 3(B).

TABLE – 3 (B): WAGE COST

Brick units	Daily Wage Earners			Daily Wages (in Rs.)			No of Days	Daily wages total			Brick Based Wage Payment
	M	F	T	M	F	T	Total Days	M	F	T	
1.	8	12	20	960	960	1920	100	96000	96000	192000	2880000
2.	10	8	18	1200	640	1840	90	108000	57600	165600	161280
3.	4	4	8	480	320	800	65	31200	20800	52000	144000
4.	6	9	15	720	720	1440	80	57600	57600	115200	144000
5.	6	5	11	720	400	1120	120	86400	48000	134400	144000
6.	4	8	12	480	640	1120	60	28800	38400	67200	96000
7.	4	8	12	480	640	1120	90	43200	57600	100800	144000
8.	7	12	19	840	960	1800	100	84000	96000	180000	144000
9.	11	8	19	1320	640	1960	60	79200	38400	117600	144000
10.	4	4	8	720	320	1040	70	50400	22400	72800	144000
11.	4	2	6	480	160	640	85	40800	13600	54400	96000
12.	5	6	11	720	400	1120	90	64800	36000	100800	144000
13.	4	4	8	480	320	800	120	57600	38400	96000	96000
14.	6	8	14	720	640	1360	65	46800	41600	88400	134400
15.	2	4	6	240	320	560	70	16800	22400	39200	115200
16.	3	2	5	360	160	520	90	32400	14400	46800	134400
17.	1	5	6	120	400	320	120	14400	48000	62400	100800
18.	2	3	5	240	240	480	60	14400	14400	28800	134400
19.	2	4	6	240	320	560	90	21600	28800	50400	72000
20.	6	3	9	720	240	960	120	86400	28800	115200	100800
21.	4	2	6	480	160	640	100	48000	16000	64000	86400
22.	2	4	6	240	320	560	90	21600	28800	50400	100800
23.	6	9	15	720	720	1440	80	57600	57600	115200	86400
24.	4	9	13	480	720	1200	120	57600	86400	144000	72000
25.	5	8	13	600	640	1240	90	54000	57600	111600	100800
26.	4	4	8	480	460	960	120	57600	55200	112800	72000
27.	4	6	10	480	480	960	150	72000	72000	144000	100800
28.	6	3	9	720	340	960	120	86400	40800	127200	72000
29.	5	8	13	600	640	1240	90	54000	57600	111600	76800
30.	6	4	10	720	320	1040	120	86400	38400	124800	672000
Total	**145**	**176**	**321**	**17760**	**14240**	**31720**	**2825**	**1656000**	**1329600**	**2985600**	**6713280**

Source: Field Survey.

NOTE: Wage rate per day for Male Rs. 120, Female RS 80 Wage paid to workers on the basis of no. of bricks precisely Rs. 160 for 1000 bricks for calculation see table one of column No. 4 part 2 above

The total brick based amount for 30 units is Rs.6713280. The last column of table-3(B) gives the total wage cost including the wage cost of table-3(A) and 3(B) respectively. Total wage cost is rupees 3.42 crores which include regular wage cost, daily wage cost and brick based wage cost. Hence the total wage cost for 526 total workers being Rs. 3.42 crores is not reflected either in table-3(A) and 3(B) above.

THE BRICK INCOME

The production, material and labour cost of production are the basic aspects of brick-kiln units. Similarly the be all and end all of brick making surrounds around the idea of income. In other words income is a very significant variable in the analysis of brick industry. The brick makers are greatly motivated by increasing their income. The income is a determinate of cost of production and wages they provide to the workers. At the same time the income is also dependent on the demand for bricks and the price the brick fetch for the brick makers. Therefore, the brick incomes of 30 brick-kilns are noted in table-04 below.

TABLE – 04: INCOME OF THE BRICKS (Rs. in Lakhs)

Brick line	Brick Income	Total %	Brick line	Brick Income	Total %
1	36.00	8.3	16	16.80	4.0
2	21.60	5.0	17	12.60	3.0
3	18.00	4.2	18	16.80	4.0
4	11.00	2.5	19	9.00	2.0
5	18.00	4.2	20	12.60	3.0
6	1.20	2.8	21	10.80	2.5
7	18.00	4.1	22	12.60	3.0
8	18.00	4.1	23	10.80	2.5
9	18.00	4.2	24	9.00	2.0
10	18.00	4.1	25	12.60	3.0
11	12.00	2.8	26	9.00	2.0
12	14.40	3.3	27	12.60	3.0
13	12.00	3.0	28	9.00	2.0
14	16.80	4.0	29	9.60	2.2
15	14.40	3.3	30	8.40	1.9
Total				**419.60**	**100.00**

Source: Field Survey.

Note: Rs. 2 per brick. For no. of brick manufactured in each brickiln see table1 Col. No.4.

It is significant to note that the brick-kilns sell each piece of brick for Rs.2. As a result it is evident that there are as many as two brick makers whose brick income is 8.0 percent of the total brick income. Similarly, a bunch of say, 5-6, brick-kilns generates brick income of 4 percent of the total. The total brick income of 30 units is rupees 419.60 lakhs as may be seen from table above.

CRITICAL EVALUATION

Before we make a critical evaluation it is evident from our economic analysis that

a) The 30 brick-kilns have produced 218.9 lakhs of bricks (see table-1 above).
b) They have incurred a total material cost of Rs. 210.91 lakhs (see Table-2 above).
c) They have paid total wages and material cost of Rupees 3,42,70,880.
d) Therefore, if we deduct Rupees 3,42,70,880.

So much from 4,19,60,000 (income), we get Rupees 76,89,120 has the net income or profit made by 30 brick-kilns of our sample. It is clear from our analysis that on an average each of the sample units makes a net profit of Rupees 2,56,304 during the whole production period of 2007-2008. If we switch our attention to wages and employment on the ground that brick manufacturing is indigenous and labour intensive activity, our analysis of wage cost points out that

a) The contract wage earners are 205 in number.
b) The daily wage earners are 321 and
c) There is brick based wage payment of Rs.160 for every 1000 brick shared by total workers (see Table-3(b).
d) Thus, there are 526 workers who get total wages of Rupees 12179880.
e) The average seasonal wage per workers is Rupees 23155.6.

Thus, the brick-kiln is a relatively a better paid unit from the workers point of view. If we compare to the wages received by workers who have worked in The National Rural Employment Guarantee Act 2005 (NREGA)[11] which is about Rupees 10,000 for hundred days of employment. We may therefore conclude that brick-kiln is not only profit making but also employment providing, coupled with higher amount of wage providing activity in Gulbarga city.

These brick-kilns have been working for the last one decade but are placed on rental land of others. They suffer from uncertainty year after year.

The brick-kiln industry has stood firmly with construction industry in Gulbarga City. At least 5-6 thousand houses and about 500 hundred private and public buildings are constructed year after year. Therefore, the brick-kiln industry may be held responsible for the faster rate of urbanization taking place in and around the Gulbarga City. However there are some of the important problems originated from the brick-kiln industry, which are as follows:

a) They suffer from the shortage of raw materials and other material required for brick making. For example, mud supply is disturbed by forest officials and officials of mines and geology.
b) They are paise to paise self financed in other words they put in their own money or money borrowed from relatives and friends.
c) The digging of earth for purpose of bricks creates water logging and during the rainy season this water spreads many diseases to the people in the city.
d) They are very close to the city. Therefore the brick-making and burning creates many environmental problems. The brick manufacturers do not provide accommodation facilities to the workers. They also do not provide either permanent employment or general or health insurance.
e) It has been found from our study that the net profit of some brick-kilns is highly understated. Because during the off season there is great demand for bricks. Therefore those who store and stock them sell the bricks at the rate of Rs.2.50 – 3.00 Rupees per brick. As a result out of 30 units of our sample as many as twelve of them make wind fall gains.
f) The brick pieces kept as a heap around the brick-kiln are also sold for Rs.300-500 per truck. This income too does not come under estimation of net income. The labour is extremely under paid because no alternative work opportunities available to them. There is no workers union or association. There are no payments towards their social security. They also do not get any payment towards medical expenses, all this is to be attributed to the fact the brick-kilns are in the informal sector[12].

CONCLUSION

The brick making is a very vibrant industry functioning in the close vicinity of the Gulbarga City. It has been responsible for a faster growth of construction industry in general, and house construction in particular. They provide employment to large number of illiterate, unskilled male and female workers. They have most of them substantial amount of annual net income due to the sale of bricks during off the season and the sale of brick pieces. The only problem and grumbling of the brick-kilns owners in the city is that they do not get bank credit. In other words formal finance is denied to these informal brick-kilns.

The last but not the least problem or the grumbling they have is with regard to the frequent intimidation from forest officials and officials of department of mines and geology. The brick-kilns are in the urban informal sectors but they are solely responsible for faster growth of construction activity in the Gulbarga City.

NOTES

1. For example, the international labour organisation (ILO) during the early seventies has defined informal sector as it specified a set of characteristic to distinguish informal enterprises such as small scale of operation, family ownership, reliance on indigenous resources, labour intensive and adaptive technology skills acquired outside the formal system and operation in unregulated and competitive market.
2. If not in terms of production or products, not using of technology, not having any unique market place for the sale of output also comes under the caption of unorganised sector. Similarly the National Commission on labour defined unorganised labour in unorganised market as "those workers who have not been able to organise themselves in pursuit of their common interests due to certain constraints like casual nature of employment, ignorance and illiteracy, small and scattered size of establishments, etc. (See report of the National Commission on labour 2005-06).
3. Claire Witbool, "The brick making in India by the poor, mud brick industry in India" New York Times Thursday June, 7, 2008.
4. Instead of brick-kiln industry, there are two studies only and exclusively on the employment of labour in the brick-kiln industry. For example see, Patil B.R". Brick-kiln workers in greater Bangalore" Indian Journal of Labour Economics, Vol. XXVII, No.4, Jan, 1985, pp.301-309 and Gupta Jyoti, "Informal Labour in Brick-kilns: Need for regulations, economic and political weekly, August 2003, Vol. XL, No.5, 22-23, PP. 3282-3292.
5. They were under the impression that we were from income tax office or from city municipality Corporation, or those authorities who visit them from time to time viz., the forest department or from the department of Mines and Geology. We revealed our identity and convinced them about the purpose of the study.
6. The specific wages are that each worker is paid a sum of Rupees 25-30 thousand for the whole season. Where as the Ad Volarem wages are Rs.160 for every Rs.2000 of bricks manufacturers.
7. Because, for example for mud every unit owner sells out Rupees 30,000 thousand per acre irrespective of the number of days he has brought the mud or the quantity of mud he has acquired for the whole season. This is paid to the farmers whose land is acquired for getting mud.
8. In our sample we have found that, there are 16 units, which get water from their own or hired borewells, nine units get from tankers, 2 units get from tractors, one unit gets from pipeline and lastly two units get from head loading.
9. The coal and ash are bought jointly by one or more units. These items are also brought from different places at different points of time. The payments are also made highly irregular. These are acquired from Sedam, Shahabad, Wadi, Hyderabad and Raichur depending upon their availability.
10. It is to be noted that the brick-kiln owners are lucky and happy. Because they get the water of required quantity from the borewells which are drilled about 100-120 feet or 30-40 metres. There are no reports of borewells having failed at any stage.

11. Under NREGA a person is entitled for employment upto 100 days in an year whereas the brick-kiln workers have received higher wages but also get work for a minimum of 100 to maximum of 180 days in an year.
12. Mr. Oscar Fernandes, Union Minister of State for labour, has pointed out that during 2008, the Government of India has passed a bill to cover workers in the unorganised sector. The bill seeks to establish a district wise council for workers working in the unorganised sector. For identification of such workers. They will be given a job card. If the workers do not get employment, they will be given unemployment benefit of Rs.500 per workers for a period of 6 months. In all probability this will take a lot more time to come into effect.

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EXTENT OF UNEMPLOYMENT AMONG THE TRIBAL AND NON-TRIBAL HOUSEHOLDS IN THE RURAL AREAS OF HIMACHAL PRADESH: A MULTI-DIMENSIONAL APPROACH

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ABSTRACT

In this paper an attempt has been made to work out the distribution pattern of family human labour mandays employed in different activities i.e. agricultural, non-agricultural and household necessary activities with a view to find out the nature and magnitude of unemployment with the help of multi-dimensional approach i.e. time, willingness and income criteria among the tribal and non-tribal households in the rural areas of Himachal Pradesh. The present empirical investigation reveals that the percentage of unemployment with the help of time, willingness and income criteria shows a decreasing tendency with an increase in the size of holdings. The percentage of unemployed is highest on the smaller holdings mainly due to their uneconomic size of holdings, higher dependency and illiteracy percentage, higher burden of debt payment, low paid occupations and irregular sources of household income etc. whereas, contrary to it, the percentage of unemployed/underemployed is quite low on larger holdings on account of their higher percentage of literacy, sound and regular sources of income, well paid professions as well as availability of gainful employment on their own farms in the tribal and non-tribal areas of Himachal Pradesh.

KEYWORDS

Unemployment, Tibal, Households, Rural, Himachal Pradesh.

INTRODUCTION

Unemployment and underemployment in association with low and irregular incomes are the major causes of poverty. Unemployment problem in India is not only complicated but also becoming very explosive. The existence of idle labour has become the essential characteristic of Indian economy. These labourers neither get the opportunity of becoming full productive nor are they in a position to secure any gainful employment (Ahuja, 1978). One of the most important objectives of the development planning during all Five Year Plans in India has been to increase employment opportunities so that all the new entrants into the labour force be absorbed in gainful employment and the backlog of unemployment at the end of plan period would be small. However, the planning has failed to achieve this objective. Unemployment in India can be seen both in the rural as well as urban areas. The problem of rural unemployment is mainly in the nature of lack of full utilization of labour than of complete unemployment. This phenomena is so on account of two factors, viz. the predominance of self-employment workers on family farms without receiving wages and the seasonal variations in the demand for labour due to seasonality of farming operations. Thus rural unemployment consists of both seasonal and chronic unemployment. But on the whole rural unemployment can be considered as disguised unemployment in view of the predominantly joint family system in rural areas (Thakur, 1985). There has been a general notion for a long time that the traditional agriculture provides employment to many more persons than is necessary to produce a given level of output. This notion was very strong during the fifties and sixties, particularly in India and it was regarded as an almost established fact that the agriculture sector of developing country like India suffer from large scale disguised unemployment or underemployment (United Nations, 1975). The concept of disguised unemployment was rather unknown in classical economics which, however, recognized the pressure of growth of population and diminishing return tending to lead the economy in the absence of technical progress to a state of stagnation and in subsistence or near subsistence level of wages. The concept of disguised unemployment is used as a new tool in development economics claiming a special contribution of its own to the analysis of an underdeveloped economy. The belief is that the agricultural economy of an underdeveloped country is largely characterized by not so much open unemployment as by disguised unemployment (Mandal, 1966).

Unemployment is a condition of joblessness. It is "a state of affairs in which for various reasons, men have to remain without jobs over many months or even for a longer period" (Das, 1968). Unemployment denotes the existence of a reserve of labour time available for utilization. This reserve may be visible and/or invisible. Visible unemployment is indicative of the manhours of work which, in existing conditions, the labour force is willing but unable to perform. In short, it is synonymous with enforced idleness (Bahadur, 1961). Again, visible unemployment has two elements: (i) complete unemployment in the sense of being out of job, and (ii) partial unemployment in the sense of having only part time job. It may means jobs with seasonal slacks or other forms of discontinuous work. Invisible unemployment may be either in the nature of disguised unemployment, under employment or frictional unemployment. A number of studies have shown that the employment elasticity of agricultural output is not only considerably below unity but also declining. The inadequate rate of labour absorption in the non-agricultural sectors in India has further aggravated the already enormous problem of unemployment. (Jayadevan, 1998).

One of the serious problems of Himachal Pradesh is its rising level of unemployment. Disguised unemployment in agriculture and the large volume of low quality employment are the causes of concern. Unemployment among the educated youth is serious considering that the state is one of the highly literate ones. According to 2001 Census the overall literacy percentage of Himachal Pradesh was 76.50 percent (85.30 percent for males and 67.40 percent for females). Comparatively, it is much higher than all India literacy rate, which was 65.30 percent. The Literacy rate of Himachal Pradesh is also improving faster than the all India figures (Directorate of Census Operations, 2005). The literacy rate for rural areas was 75.1 percent (out of which 84.5 percent for males and 65.7 percent for females) whereas the literacy percentage was higher for urban areas, which was 88.9 percent (92.0 percent for males and 85.0 for females) according to 2001 Census (Planning Department, 2004). The literacy percentage for the scheduled tribe population was 65.5 percent (out of which 77.7 percent for males and 53.3 percent for females) in the State. The percentage of literacy among the scheduled tribe population in the rural areas was 64.8 percent (77.2 percent for males and 52.5 percent for females) whereas, this percentage was higher in the urban areas among the scheduled tribe population at 87.2 percent (92.0 percent for males and 81.2 percent for females)(Directorate of Census Operations, 2005).

According to 55^{th} NSSO Round (1999-2000), employment growth rate in the state during 1993-94 to 1999-2000 period was just 0.37 percent per annum and it was far lower than the all India employment growth rate of 1.07 per cent. The rate of unemployment on Current Daily Status (CDS) was 1.80 percent in 1990-94 and rose to 2.96 percent in 1999-2000 which was much lower than the national rate of unemployment that was 5.99 percent in 1993-94 and 7.32 percent in 1999-2000. However, employment elasticity during 1993-94 to 1999-2000 period was very low at 0.052 as compared to all India figure of 0.160 (Ministry of Finance and Company Affairs, 2003). Thus the unemployment scenario in the state is very discouraging. In addition to NSS data, estimates of unemployment are available from the state employment exchanges. According to their live registered, the total number of job seekers, both educated and uneducated was 8, 80,094 during 2003-04 but their number declined to 7,56,980 in 2006-07 (Department of Economics and Statistics, 2007). The employment exchange data suffers from limitations and constraints and do not give a reliable picture of unemployment in the state. For example, a large number of applicants registered with the employment exchange might be employed but continue to be on the live registers. This number roughly covers that segment of workforce, most of them being educated youth, which either suffers from chronic unemployment or belongs to the category of the underemployed (Planning Commission, 2005).

NEED AND IMPORTANCE OF THE PRESENT STUDY

A number of attempts have been made to estimate the nature and magnitude of employment and unemployment in the rural areas at the national level, but most of the studies are based on national sample survey which are aggregative in nature on the one hand and have applied uni-dimensional measure i.e. time criterion which is due to different full employment norms resulted in vary estimates. For the first time objection had been raised by the committee of experts on employment estimates in 1970 against the uni-dimensional approach and suggested multi-dimensional approach for working out the estimates of unemployment and/or unemployment. The modified version of multi-dimensional approach has been presented by Krishna (1973) and supported with the help of empirical facts by Krishna himself, Ahuja (1978) and Rath (1980). A few studies which are conducted at the state level are either related to all socio-economic groups together or cover only a particular section of the population. Due to different agro-climatic conditions, topography as well as regional variations, the problems related to employment and unemployment should be addressed separately in the tribal and non-tribal areas of Himachal Pradesh. Therefore, in order to avoid the underestimation and overestimation of unemployment as well as underemployment in this paper an attempt has been made to workout the nature and magnitude of unemployment among the tribal and non-tribal households with help of multi-dimensional approach i.e. by using time, willingness and income criteria on the different size of holdings. Thus the findings of this study will helpful for policy makers, planners as well as economists for policy formulation to reduce unemployment and/or underemployment and for generating gainful employment opportunities, which will help in removing regional imbalances and socio- economic inequalities prevailing in the tribal and non-tribal areas in the state of Himachal Pradesh.

OBJECTIVES OF THE PRESENT STUDY

The specific objectives of the present study are:

- to study the socio-economic profile of the tribal and non-tribal households;
- to analyse the pattern of human labour days utilization in different activities among the tribal and non-tribal households;
- to workout the extent of unemployment with the help of multi-dimensional approach i.e. time, willingness and income criteria; and
- to give suggestions for improving employment opportunities in the tribal and non-tribal areas of Himachal Pradesh.

RESEARCH DESIGN

This study is based on an empirical investigation carried out in two districts namely Bilaspur and Kinnaur district of Himachal Pradesh. These two districts have been selected purposely, mainly due to the reason that the Kinnaur district is inhabited by the tribal population and Bilaspur district consists of the non-tribal population of the State. With the help of multi-stage random sampling, a sample of 170 households consisting of 80 tribal and 90 non-tribal households has been selected. The holding-wise analysis shows that out of 80 tribal households, 38 marginal farmers having landless than one hectare, 25 small farmers having land 1 to 2 hectares and the remaining 17 are medium farmers having land 2 to 10 hectares and out of 90 non-tribal households, 42 marginal, 29 small and 19 medium size of holdings have been selected randomly. The required information on the pattern as well as utilization of human labour days in agricultural, non-agricultural and necessary activities in order to workout the extent of unemployment with the help of multi-dimensional approach i.e. time, willingness and income criteria have been collected with the help of pre-tested schedule by conducting personal interviews of informants during the year 2003-2004.

MEASURES OF UNEMPLOYMENT

The extent of unemployment has been worked out among the tribal and non-tribal households with the help of multi-dimensional approach (i.e. by applying the time, income and willingness criteria for calculating the magnitude of unemployment) which has been suggested by Raj Krishna (1973). According to Raj Krishna a worker be termed unemployed or under employed if either, (i) he is gainfully occupied during the year for a number of days less than some normal or optimal days defined as full employment days; or (ii) he earns an income per year less than some desirable minimum i.e. the value of poverty index; or (iii) he is willing to do more work if it is offered on terms to which he is accustomed. These criteria have been termed by Raj Krishna (1973) as time, income and willingness criteria respectively. In the present study, these three criteria viz. time, income and willingness criteria have been used to work out the extent of unemployment in terms of 'idle', 'poor' and 'willing' respectively by taking into account the following facts into consideration:

I. In the present study 8 hours a day, 25 days in a month or 300 days in a year have been considered as full employment norm, which has been suggested by the Committee of Experts on Employment Estimates (Planning Commission, 1970).

II. In the present study due to differences in the work efficiency of male, female, children and old persons labour days have been converted into 'standard mandays' (MD) by attaching the proper coefficient of efficiency i.e. one woman day (WD) has been treated equal to (0.75) mandays (MD) and one child day (CD) has been treated equal to 0.50 (MD) (Ghosh, 1977). Further in the present study one old person has been treated equal to one child day i.e. 1 CD = 1 OD = 0.50 MD (Thakur, 1985).

III. The value of poverty index has been worked out by taking into account the value of the minimum food and non-food requirements of the tribal and non-tribal sample households at local retail prices in the area under study during the period of investigation i.e. 2003-2004. All those persons who are earning less than the value of the poverty index have been termed unemployed and/or underemployed and the remaining persons earning more than the value of poverty index have been considered gainfully employed according to 'income criterion'.

IV. The workers working at full employment norms are fully employed according to 'time criterion' but their earning from the present work is not sufficient to meet out their basic needs, such workers have been considered underemployed according to 'income criterion'. Those who are working at full employment norms according to 'time criterion' but are willing to work for additional hours and/or days on the existing wage rate have been considered unemployed or under employed according to 'willingness criterion'.

RESULTS AND DISCUSSION

The results and discussion based on the present empirical investigation are presented below:

Socio-Economic Profile of the Tribal and Non-Tribal Households in the Rural areas

The tribal sample households have total population of 474 persons which consist of 247 are males and 227 are females and among non-tribal households the total sample of population is 550, consisting of 278 are males and 272 are females (see table 1 and 2). The sex ratio has been worked out 919 among tribal households whereas this ratio is 978 among non-tribal households. The sex ratio shows a decreasing tendency with an increasing in the size of holdings. The average size of family for tribal households has been worked out 5.39, 6.04. 6.94 and 5.92 on the marginal, small, medium and among all holding groups together respectively, whereas, among the non-tribal households, the average size of family come out 5.31, 6.65, 7.05 and 6.11 on the respective size of holding groups. The average size of family shows an increasing tendency with an increase in the size of holdings. It happened mainly due to the reason that marginal farmers generally prefer nuclear family system on account of their smaller size of holdings and poor economic conditions. But contrary to it, small and medium farmers generally prefer joint family system due to their sound economic conditions as well as large and economic size of holdings. The percentage of family workforce (15-59 years) among the tribal households has been worked out 60.00, 63.58, 65.25 and 62.45 percent on the marginal, small, medium and among all the holding groups together respectively, whereas among the non-tribal households this percentage come out 63.68, 64.77, 60.45 and 63.27 percent respectively.

TABLE 1: AVERAGE FAMILY SIZE, PERCENTAGE OF FAMILY WORKFORCE, PERCENTAGE OF DEPENDENTS, NUMBER OF STANDARD MANDAYS, NUMBER OF STANDARD CONSUMER UNITS AND SEX-WISE LITERACY PERCENTAGE AMONG THE TRIBAL HOUSEHOLDS IN THE RURAL AREAS

Sr. No.	Particulars	Marginal Holdings	Small Holdings	Medium Holdings	All Holdings
1.	Total Number of Households	38	25	17	80
2.	Total Sample Population				
	Male	107	79	61	247
	Female	98	72	57	227
	Total	205	151	118	474
3.	Sex Ratio	916	911	934	919
4.	Average Size of Family	5.39	6.04	6.94	5.92
5.	Number of Family Work-Force	123	96	77	296
		(60.00)	(63.58)	(65.25)	(62.45)
6.	Number of Dependents	82	55	41	178
		(40.00)	(36.42)	(34.75)	(37.55)
7.	Total Standard Mandays	126.0	95.25	75.0	296.25
8.	Per Household Standard Mandays	3.32	3.81	4.41	3.70
9.	Total Number of Consumer Units	221.9	167.1	131.6	520.6
10.	Per Household Consumer Units	5.84	6.68	7.74	6.51
11.	Literacy Percentage				
	Male	74	60	51	185
		(71.15)	(75.96)	(83.61)	(74.90)
	Female	60	47	39	146
		(60.61)	(65.28)	(68.42)	(64.31)
	Total	134	107	90	331
		(65.36)	(70.86)	(76.27)	(69.83)

Note: Figures in parentheses denote the percentage to column total.

Due to differences in the age and sex and thereby differences in the working capacity of efficiency, the male, female, children and old persons have been converted into 'standard mandays' (MD) by attaching the proper co-efficient of efficiency. The children below 9 years of age and old persons above 65 yeas have been excluded from the workforce in the present study and thus are not included in the calculation of the total standard mandays in the sample population. The standard mandays among the tribal has been worked out 126.0, 95.25, 75.0 and 296.25 on the marginal, small, medium and among all the holdings together, whereas among the non-tribal households the standard mandays come out 147.25, 128.00, 85.75 and 361.00 respectively. The per household standard mandays shows an increasing tendency with an increase in the size of holdings.

TABLE 2: AVERAGE FAMILY SIZE, PERCENTAGE OF FAMILY WORKFORCE, PERCENTAGE OF DEPENDENTS, NUMBER OF STANDARD MANDAYS, NUMBER OF STANDARD CONSUMER UNITS AND SEX-WISE LITERACY PERCENTAGE AMONG THE NON-TRIBAL HOUSEHOLDS IN THE RURAL AREAS

Sr. No.	Particulars	Marginal Holdings	Small Holdings	Medium Holdings	All Holdings
1.	Total Number of Households	42	29	19	90
2.	Total Sample Population				
	Male	112	98	68	278
	Female	111	95	66	272
	Total	223	193	134	550
3.	Sex Ratio	991	969	971	978
4.	Average Size of Family	5.31	6.65	7.05	6.11
5.	Number of Family Work-Force	142	125	81	348
		(63.68)	(64.77)	(60.45)	(63.27)
6.	Number of Dependents	81	68	53	202
		(36.32)	(35.23)	(39.55)	(36.73)
7.	Total Standard Mandays	147.25	128.0	85.75	361.0
8.	Per Household Standard Mandays	3.50	4.41	4.51	4.01
9.	Total Number of Consumer Units	252.9	224.2	151.1	628.20
10.	Per Household Consumer Units	6.02	7.73	7.95	6.98
11.	Literacy Percentage				
	Male	87	80	60	227
		(77.68)	(81.63)	(88.23)	(81.65)
	Female	74	66	47	187
		(66.67)	(69.47)	(71.21)	(68.75)
	Total	161	146	107	414
		(72.20)	(75.65)	(79.85)	(75.27)

Note: Figures in parentheses denote the percentage to column total.

The size and composition of the family is the main determinant of the household consumption expenditure. The individual members in the family consume different quantities of food items as per their age and sex behaviours. Therefore, in order to avoid any under/over estimation of unemployment rates among the sample population, the family members of varying age and sex have been converted into 'Standard Consumer units' or 'adult man value' by applying the 'scale of co-efficient' suggests by the Indian Council for Medical Research (Gopalan, et. al, 1980). The total number of 'Standard Consumer Units' has been worked out 221.9, 167.1, 131.6 and 520.6 on the marginal, small, medium and among all the holdings together whereas among the non-tribal households Standard Consumer Units come out 252.9, 224.2, 151.1 and 628.20 respectively. Per household Standard Consumer Units shows an increasing tendency with an increase in the size of holdings.

Education is an important social factor and it acts as a means reducing the socio-economic inequalities in the society. It helps the individual to raise his social and economic status in various ways. Knowledge, skills, values and attitude acquired through education help one to lead a desired quality of life. Besides, being a basic need, education especially vocational, technical and professional is necessary for job placement and thus acquiring a higher social status. Thus literacy is an important indicator of levels of living. The percentage of literacy among the tribal households has been worked out 65.36, 70.86 and 76.27 percent on the marginal, small and medium size of holdings respectively whereas, among the non-tribal households this percentage come out 72.20, 75.65 and 79.85 percent respectively. Among all the holdings together, the literacy percentage is highest among the non-tribal households (i.e. 75.27 percent) as compared to the tribal households (i.e. 69.83 percent). The sex-wise analysis shows that the literacy percentage is highest among males as compared to females. The percentage of literacy shows an increasing tendency with an increase in the size of holdings. It happened mainly due to the reason that the households falling on the larger size of holdings has sound and regular sources of income and can afford to make investment on the better education of their wards. Whereas, contrary to it, the households falling on the smaller holdings due to their uneconomic size of holdings, lack of gainful employment opportunities and meagre household income cannot afford to bear the expenses of their children i.e. mainly for higher education. This study reveals that the literacy percentage is highest among non-tribal as compared to tribal households. It happened mainly because of the fact that non-tribal areas have more and better avenues and opportunities for education as compared to the tribal areas.

PATTERN OF HUMAN LABOUR DAYS UTILIZATION IN AGRICULTURAL, NON-AGRICULTURAL AND NECESSARY ACTIVITIES AMONG THE TRIBAL AND NON-TRIBAL HOUSEHOLDS IN THE RURAL AREAS

The percentage of standard mandays spent in agricultural, non-agricultural and necessary activities among the tribal and non-tribal households has been presented in Tables 3 and 4 respectively. In the present study, agricultural activities include human labour days utilized in crop production, horticulture activities, livestock activities i.e. looking after cattle, grazing as well as other activities such as forestry, fisheries and poultry etc. These tables clearly indicate that percentage of mandays spent in farm activities i.e. crop production shows an increasing tendency with an increase in the size of holdings. The reason behind it is that the larger farmers with their quite larger and economic size of holdings and regular sources of household income can afford to

TABLE 3: PATTERN OF FAMILY HUMAN LABOUR DAYS UTILIZATION IN AGRICULTURAL, NON-AGRICULTURAL AND NECESSARY HOUSEHOLD ACTIVITIES AMONG THE TRIBAL HOUSEHOLDS IN THE RURAL AREAS (Standard Mandays)

Sr. No.	Activities	Marginal Holdings	Small Holdings	Medium Holdings	All Holdings
1.	**Agricultural Activities**				
	a. Crop Production	45.28 (5.78)	83.63 (8.65)	131.10 (10.98)	75.51 (8.14)
	b. Horticultural Activities	40.00 (5.11)	83.85 (8.67)	157.54 (13.19)	78.68 (8.48)
	c. Livestock Activities	158.89 (20.29)	192.14 (19.88)	227.07 (19.01)	183.77 (19.81)
	d. Others*	36.12 (4.61)	30.12 (3.12)	23.16 (1.94)	31.49 (3.39)
	e. Sub-Total of Agricultural Activities	280.29 (35.79)	389.74 (40.32)	538.87 (45.12)	369.45 (39.82)
2.	**Non- Agricultural Activities**				
	a. Services	86.45 (11.04)	186.15 (19.26)	289.34 (24.23)	160.72 (17.32)
	b. Business	28.81 (3.68)	43.80 (4.53)	34.47 (2.89)	34.70 (3.74)
	c. Households Industries	62.37 (7.96)	25.20 (2.61)	10.59 (0.89)	39.75 (4.28)
	d. Wage-Work	108.68 (13.88)	42.80 (4.43)	8.82 (0.74)	66.87 (7.21)
	e. Religious Work	2.53 (0.32)	14.60 (1.51)	7.06 (0.59)	7.26 (0.78)
	f. Others**	14.34 (1.83)	29.20 (3.02)	37.07 (3.10)	23.81 (2.57)
	g. Sub-Total of Non-Agricultural Activities (a to f)	303.18 (38.71)	341.75 (35.36)	387.35 (32.43)	333.11 (35.90)
3.	**Necessary Activities**				
	a. Family Affairs	134.25 (16.38)	143.29 (14.82)	156.36 (13.09)	141.77 (15.28)
	b. Social Affairs	24.64 (3.15)	38.95 (4.03)	50.15 (4.20)	34.53 (3.72)
	c. Leisure, Rest and Sickness	26.67 (3.40)	37.15 (3.84)	44.12 (3.69)	33.65 (3.63)
	d. Others***	14.22 (1.82)	15.67 (1.62)	17.50 (1.47)	15.37 (1.66)
	e. Sub-Total of Necessary Activities (a to d)	199.78 (25.50)	235.06 (24.32)	268.13 (22.45)	225.32 (24.28)
4.	**Grand Total (1 to 3)**	783.25 (100.00)	966.55 (100.00)	1194.35 (100.00)	927.88 (100.00)

Note: Figures in parenthesis denote percentage to column total.
* Includes poultry, fisheries, forestry etc.
**Includes tuitions, vehicles used for commercial purposes etc.
*** Includes care of sick and elderly, knitting, shopping etc.

utilize their maximum land area for the production of field crops by using the irrigation, high yielding varieties of seeds, fertilizer etc. in order to increase their household farm income. Whereas, contrary to it, the smaller farmers with their quite small and uneconomic size of holding and meagre household income cannot afford to spent more days in farm activities which is less remunerative.

The climatic conditions are not favourable to produce the horticultural crops in non-tribal district i.e. low hill zone areas of the State. Therefore, most of land area is used for the cultivation of field crops by the non-tribal households. The percentage of mandays spent in horticultural activities among tribal households show an increasing tendency with an increase in the size of holdings. The percentage of mandays spent in livestock activities among tribal and non-tribal households is highest among the smaller holdings mainly due to the reason that smaller holding groups due their uneconomic size of holdings cannot afford to feed their cattle at the cattle shed and therefore, they left them for grazing to the nearby forest and/or common grasslands for most of the time during the day.

TABLE 4: PATTERN OF FAMILY HUMAN LABOUR DAYS UTILIZATION IN AGRICULTURAL, NON-AGRICULTURAL AND NECESSARY HOUSEHOLD ACTIVITIES AMONG THE NON-TRIBAL HOUSEHOLDS IN THE RURAL AREAS (Standard Mandays)

Sr. No.	Activities	Marginal Holdings	Small Holdings	Medium Holdings	All Holdings
1.	**Agricultural Activities**				
	a. Crop Production	99.02	209.82	297.13	176.54
		(11.93)	(18.60)	(24.11)	(17.46)
	b. Horticultural Activities	-	-	-	
	c. Livestock Activities	158.84	214.51	219.58	189.60
		(19.14)	(19.02)	(17.82)	(18.76)
	d. Others*	24.86	26.06	19.95	24.21
		(3.00)	(2.31)	(1.62)	(2.40)
	e. Sub-Total of Agricultural Activities	282.72	450.39	536.66	390.35
		(34.07)	(39.92)	(43.55)	(38.62)
2.	**Non- Agricultural Activities**				
	a. Services	107.70	229.69	341.18	196.30
		(12.98)	(20.36)	(27.68)	(19.42)
	b. Business	42.70	51.20	33.17	43.43
		(6.35)	(4.54)	(2.69)	(4.30)
	c. Households Industries	47.02	20.68	19.21	32.66
		(5.15)	(1.83)	(1.56)	(3.23)
	d. Wage-Work	139.04	93.10	9.47	96.88
		(16.76)	(8.25)	(0.77)	(9.58)
	e. Religious Work	5.35	12.41	6.31	7.83
		(0.64)	(1.10)	(0.51)	(0.77)
	f. Others**	16.67	20.34	25.42	19.70
		(2.01)	(1.80)	(2.06)	(1.95)
	g. Sub-Total of Non-Agricultural Activities (a to f)	358.48	427.42	434.76	396.80
		(43.21)	(37.89)	(35.28)	(39.25)
3.	**Necessary Activities**				
	a. Family Affairs	118.28	149.93	155.09	136.25
		(14.26)	(13.29)	(12.58)	(13.48)
	b. Social Affairs	19.30	25.46	30.76	23.70
		(2.33)	(2.26)	(2.50)	(2.34)
	c. Leisure, Rest and Sickness	30.98	49.72	55.94	42.29
		(3.73)	(4.41)	(4.54)	(4.18)
	d. Others***	19.92	25.18	19.18	21.46
		(2.40)	(2.23)	(1.56)	(2.12)
	e. Sub-Total of Necessary Activities (a to d)	188.48	250.29	260.97	223.70
		(22.72)	(22.19)	(21.18)	(22.13)
4.	**Grand Total (1 to 3)**	829.68	1128.10	1232.39	1010.85
		(100.00)	(100.00)	(100.00)	(100.00)

Note: Figures in parenthesis denote percentage to column total.
* Includes poultry, fisheries, forestry etc.
**Includes tuitions, vehicles used for commercial purposes etc.
*** Includes care of sick and elderly, knitting, shopping etc.

The percentage of mandays spent in other activities (such as forestry, fisheries and poultry etc.) is highest among the tribal as compared to non-tribal households. This percentage shows a decreasing tendency with an increase in the size of holdings. The percentage of mandays spent in agricultural activities among the tribal households has been worked out 35.79, 40.32 and 45.12 percent on the marginal, small and medium size of holdings whereas, among non-tribal households this percentage come out 34.07, 39.92 and 43.55 percent respectively which indicates an increasing tendency with an increase in the size of holdings. Among all the holdings together the percentage of mandays spent in agricultural activities is highest among tribal (i.e. 39.82 percent) as compared to non-tribal households (i.e. 38.62 percent).

The percentage of mandays spent in services shows an increasing tendency with an increase in the size of holdings. It happened mainly due to higher literacy percentage on the larger size of holdings. This percentage is highest among the non-tribal households as compared to the tribal households. The percentage of mandays spent in business is highest on smaller holdings as compared to larger holdings among both the tribal and non-tribal households. The percentage of mandays spent in household industries is highest among tribal as compared to non-tribal households. The percentage of mandays spent in household industries is highest on the smaller holdings mainly due to the reason that these households have received loans, special training and instrument on subsidized rates under the Government Schemes to start household industries (i.e. mainly weaving, knitting, tailoring, shoe making, flour mills etc.) to supplement their meager household income.

The percentage of mandays spent in wage work is highest among non-tribal as compared tribal households mainly due to the reason that tribal people due to their higher illiteracy they face language problem, therefore, they try to get wage work preferably nearby as well as outside but necessarily within the same area. The percentage of mandays spent in wage work is highest on the marginal holdings and decreases with an increase in the size of holdings. The reason behind it is the lack of gainful employment opportunities on their uneconomic size of holdings, high illiteracy and high dependency percentage among the smaller holding groups. Further the members on the smaller holding groups are not necessarily required on their uneconomic size of holdings even during peak agricultural as well as horticultural seasons, hence they keep themselves busy in regular and more remunerative jobs and/or wage work outside agriculture i.e. mainly house construction and road construction etc. But contrary to it, the larger size of holding groups due to higher percentage of literacy, sound and regular sources of income (i.e. mainly from services) as well as due to their higher social status, most of the well to do families consider wage work below their status. Further, the households falling on the smaller size of holdings due to meagre household income cannot afford to remain unemployed during the lean agricultural seasons; hence, they try their levels best to get seasonal and/or censual wage work preferably nearby as well as outside their native place. The percentage of mandays spent in religions activities among the tribal and non-tribal households is highest on the larger size of holdings mainly due to the reason that these holding due to their higher literacy percentage mainly perform religious activities (i.e. marriage, birth, death and other religious functions) in the study area. The percentage of mandays spent in other activities (i.e. commercial vehicles, tuitions etc. shows an increasing tendency with an increase in the size of holdings. The percentage of mandays spent in non-agricultural activities to the total mandays among tribal households has been worked out 38.71, 35.36 and 32.43 percent on the marginal, small and medium size of holdings whereas, among non-tribal households this percentage come out 43.21, 37.89 and 35.28 percent

respectively, which indicates a decreasing tendency with an increase in the size of holdings. Among all the holdings together this percentage is highest among non-tribal households (i.e. 39.25 percent) as compared to the tribal households (i.e. 35.90 percent).
In the present study, all those activities viz. family and social affairs, leisure, rest and sickness and others i.e. care of sick and elderly, knitting, shopping etc. which neither provide direct employment to the family members nor add to household income but time has to be utilized in these activities by the family members because these activities are 'necessary' from the survival and social point of view in the society. The percentage of mandays spent in family affairs and others activities i.e. care of sick and elderly, knitting, shopping etc. shows a decreasing tendency whereas, the percentage of mandays spent in leisure, rest and sickness and social affairs shows an increasing tendency with an increase in the size of holding among both tribal and non-tribal households. It is clear from the above analysis that the percentage of mandays spent in social affairs is highest among the tribal as compared to non-tribal households. It happened mainly on account of the fact that the tribal people are comparatively more religions minded and they believe in the existence of god and deities, customs, traditions and beliefs as well as people of tribal areas are very fond of fairs and festivals because these are major source of their entertainment. The percentage of mandays spent in necessary activities among the tribal households has been worked out 25.50, 24.32 and 22.45 percent on the marginal, small and medium size of holdings whereas, among non-tribal households this percentage come out 22.72, 22.19 and 21.18 percent respectively which indicates a decreasing tendency with an increase in the size of holdings. Among all the sample households together, this percentage is highest among tribal (i.e. 24.28 percents) as compared to non-tribal households (i.e. 22.13 percent).

EXTENT OF UNEMPLOYMENT AMONG THE TRIBAL AND NON-TRIBAL HOUSEHOLDS IN THE RURAL AREAS: A MULTI-DIMENSIONAL APPROACH

The extent of unemployment with the help of 'time', 'willingness' and 'income' criteria for the tribal and non-tribal households in the rural areas of Himachal Pradesh has been presented in tables 5 and 6 respectively.

TIME CRITERION

The total number available mandays per household at full employment norms (i.e. 8 hours in a day, 25 days in a month and 300 days in a year) has been worked out 996, 1143, 1323 and 1110 on marginal, small, medium and among all the holding groups together respectively among tribal households, whereas among non-tribal households these mandays have been worked out 1050, 1323, 1353 and 1203 respectively. The percentage of mandays utilized in agricultural activities and necessary activities to total mandays available among tribal and non-tribal households shows an increasing tendency whereas, the percentage of mandays spent in non-agricultural activities indicates a decreasing tendency with an increase in the size of holdings.

TABLE 5: EXTENT OF UNEMPLOYMENT AMONG THE TRIBAL HOUSEHOLDS IN THE RURAL AREAS: A MULTI-DIMENSIONAL APPROACH

Sr. No.	Activities	Marginal Holdings	Small Holdings	Medium Holdings	All Holdings
1.	Total Available Mandays (Annual)	996 (100.00)	1143 (100.00)	1323 (100.00)	1110 (100.00)
2.	Total Mandays Utilized in Agricultural Activities	280.29 (28.14)	389.74 (34.10)	538.87 (40.73)	369.45 (33.28)
3.	Total Mandays Utilized in Non-Agricultural Activities	303.18 (30.44)	341.75 (29.90)	387.35 (29.28)	333.11 (30.01)
4.	Total Mandays Utilized in Necessary Activities	199.78 (20.06)	235.06 (20.57)	268.13 (20.27)	225.32 (20.30)
5.	Grand Total of Mandays Utilized	783.25 (78.64)	966.55 (84.56)	1194.35 (90.28)	927.88 (83.59)
6.	Number of Unemployed Mandays (Time Criterion)	212.75 (21.36)	176.45 (15.44)	128.65 (9.72)	182.12 (16.41)
7.	Number of Annual Mandays Available for Additional Work (Willingness Criterion)	239.87 (24.08)	194.07 (16.98)	130.32 (9.85)	202.28 (18.22)
8.	Willingness for Over Employment (6 ± 7)	27.12 (2.72)	17.62 (1.54)	1.67 (0.13)	20.16 (1.82)
9.	Unemployed (Income or Poverty Criterion)	98.3 (44.30)	44.8 (26.81)	-	143.1 (27.49)

Note: Figures in parentheses denote the percentage to column total.

The percentage of mandays utilized in all activities i.e. agricultural, non-agricultural and necessary activities (i.e. both productive and necessary activities) during the year among tribal households has been worked out 78.64, 84.56 and 90.28 percent on marginal, small and medium size of holdings which indicates an increasing tendency with an increase in the size of holdings. Among all the holdings together this percentage come out 83.59 percent. The percentage of unemployed family human labour days according to time criterion among tribal households come out 21.36, 15.44 and 9.72 percent on the marginal, small and medium size of holdings which indicates a decreasing tendency with an increase in the size of holdings. Among all the holdings together this percentage come out 16.41 percent. The percentage of family human labour days utilized in all activities among non-tribal households has been worked out 79.02, 85.27 and 91.09 percent on the marginal, small and medium size of holdings respectively whereas, among all the holdings together this percentage come out 84.03 percent. The percentage of unemployed family human labour days according to time criterion among non-tribal households has been worked out 20.98, 14.73 and 8.91 percent on the marginal, small and medium size of holdings respectively whereas, among all the holdings together this percentage come out 15.97 percent.

WILLINGNESS CRITERION

The percentage of mandays available/willing for additional work to the total mandays among the tribal households has been worked out 24.08, 16.98 and 9.85 percent on the marginal, small and medium holdings respectively. Among all the tribal holdings together this percentage come out 18.22 percent. Whereas, among the non-tribal households the percentage of mandays available/willing for additional work to the total mandays come out 24.59, 17.69 and 10.04 percent on the marginal, small and medium holdings respectively. Among all the holdings togther this percentage come out 18.28 percent. It is clear from the above analysis that the percentage of mandays willing for additional work to the total available mandays shows a decreasing tendency with an increase in the size of holdings.

TABLE 6: EXTENT OF UNEMPLOYMENT AMONG THE NON-TRIBAL HOUSEHOLDS IN THE RURAL AREAS: A MULTI-DIMENSIONAL APPROACH

Sr. No.	Activities	Marginal Holdings	Small Holdings	Medium Holdings	All Holdings
1.	Total Available Mandays (Annual)	1050 (100.00)	1323 (100.00)	1353 (100.00)	1203 (100.00)
2.	Total Mandays Utilized in Agricultural Activities	282.72 (26.93)	450.39 (34.04)	536.66 (39.66)	390.35 (32.45)
3.	Total Mandays Utilized in Non-Agricultural Activities	358.48 (34.14)	427.42 (32.31)	434.76 (32.13)	396.80 (32.98)
4.	Total Mandays Utilized in Necessary Activities	188.48 (17.95)	250.29 (18.92)	260.97 (19.29)	223.70 (18.60)
5.	Grand Total of Mandays Utilized	829.68 (79.02)	1128.10 (85.27)	1232.39 (91.09)	1010.85 (84.03)
6.	Number of Unemployed Mandays (Time Criterion)	220.32 (20.98)	194.90 (14.73)	120.61 (8.91)	192.15 (15.97)
7.	Number of Annual Mandays Available for Additional Work (Willingness Criterion)	258.25 (24.59)	234.02 (17.69)	135.80 (10.04)	219.92 (18.28)
8.	Willingness for Over Employment (6 ± 7)	37.93 (3.61)	39.12 (2.96)	15.19 (1.12)	27.77 (2.31)
9.	Unemployed (Income or Poverty Criterion)	119.0 (47.05)	66.6 (29.71)	14.4 (9.53)	200.0 (31.82)

Note: Figures in parentheses denote the percentage to column total.

INCOME CRITERION

The workers are inadequately employed not because they devote less time to work but because their earnings from the existing wage rate are not sufficient to meet out the basic needs of their family members. This point of view is strongly stated by Dandekar and Rath (1970) in their study 'Poverty in India'. They stated that, an adequate level of employment be defined in terms of its capacity to provide minimum living to population. In context of employment, under-nutrition is of crucial importance as it affects the ability to work and the efficiency of the worker. According to Raj Krishna, a person may be called unemployed and/or underemployed if, he earns an income per year/month less than some desirable minimum. In the present study the minimum desirable level of per month income in order to meet out the minimum food and non-food requirements of a person (at 2003-2004 local prices) has been worked out Rs. 499.86 for the tribal households and Rs. 388.22 for non-tribal households. The percentage of underemployed workers who are earning less than the minimum desirable income among tribal households has been worked out 44.30 and 26.81 percent on the marginal and small size of holdings, whereas, among all the holding groups together this percentage come out 27.49 percent. Whereas, the percentage of unemployed workers among non-tribal households has been worked out 47.05, 29.71 and 9.53 percent on the marginal, small and medium size of holdings respectively which indicates a decreasing tendency with an increase in the size of holdings. Among all the non-tribal holdings together this percentage come out 31.82 percent.

Thus the results of multi-dimensional approach clearly indicates that the percentage of underemployed is highest on marginal holdings followed by the small holdings mainly due to their uneconomic size of holdings, higher dependency, low literacy percentage and higher burden of debt payments etc. Whereas the percentage of underemployed is quite low on the medium holdings due to their higher literacy percentage, sound and regular sources of household income as well as the availability of gainful employment on their own farms among the tribal and non-tribal households. According to time criterion, the percentage of unemployment is highest among tribal households mainly due to the reasons that people can produce one crop in a year mainly due to high altitude, snow bound area and extreme variations in climatic conditions etc. Whereas, according to willingness and income criterion the percentage of unemployed is lowest among tribal households as compared to non-tribal households mainly due to horticultural and commercial crops like apple and dry fruits which are more remunerative in nature as compared to the field crops, large number of livestock due to vast availability of grass lands as well as common property resources, subsidies on agricultural and horticultural components like seeds, plants, implements etc.

CONCLUDING REMARKS

The findings of the present study are summarized as below:

*This study reveals that the percentage of mandays spent in crop production is highest among non-tribal households as compared to tribal households because only crop can be produced in the tribal areas in a year mainly due to high altitude, snow bound area and extreme variations in climatic conditions. Whereas the percentage of man days spent in horticultural and commercial crops i.e. apple and dry fruits which are more remunerative in nature is highest among tribal households mainly due to the reason that land as well as climatic conditions are more suitable for horticultural crops as compared to the field crops.

*The percentage of mandays spent in livestock is highest among tribal households as compared to non-tribal households. This may be explained with the reason that the tribal households remain without any agricultural work in their fields for almost six months because of heavy snow cover and they concentrate all their energies in rearing livestock, due to the vast availability of Common Property Resources (CPRs) as well as they provide necessary wool for knitting and weaving the warm cloths, blankets, mattresses, socks, caps etc. as well as supplements their food because their major diet consists of non- vegetarian food.

*The percentage of mandays spent in family as well as social affairs is highest among tribal as compared to non-tribal households. It happened mainly on account of the fact that the tribal people are comparatively more religious minded and they believe in the existence of god and deities, customs, traditions and beliefs as well as the people of tribal areas are very fond of fairs and festivals because these are the major source of their entertainment.

*According to time criterion, the percentage of unemployment is highest among tribal households as compared to non-tribal households mainly due to the reasons that people can produce only one crop in a year. Whereas, according to willingness and income criteria, the percentage of unemployment is lowest among tribal households as compared to non-tribal households on account of the fact that people are producing commercial crops such as apples, vegetables, dry fruits in the tribal areas which are more remuneration in nature as compared to traditional crops i.e. wheat, maize, paddy etc. in non-tribal areas.

*The larger holdings and/or better-off households are engaged mainly in gainful activities on their own economic farms as well as services and business etc. whereas the smaller holdings and/or worst-off households are engaged in low paid occupation like wage work, household industries and on their own uneconomic size of holdings as well as unfertile and unproductive land due to these reasons they are suffering from involuntary unemployment and underemployment. Further the results of present empirical investigation infer that uneconomic size of holdings, lack of regular and seasonal gainful employment opportunities, higher dependency, low literacy percentage, less productive assets, higher burden of debt payments, lack of irrigation facilities, uncertainty of rain etc. are the main causes of unemployment on the smaller size of holdings. Whereas the percentage of unemployment/underemployment is lowest on the larger holdings due to their higher level of education mainly professional and technical, sound and regular sources of income, employment in well paid jobs as well as gainful employment opportunities on their own farms in both the tribal and non-tribal areas.

*The development of household cottage and small-scale industries based on the availability of local raw materials has to be encouraged so that these people are gainfully employed in these industries. There is a lot of potential for the development of household industries like bamboo based industries, carton boxes, leather processing units, wool based industries (i.e. mainly in the tribal areas), handloom and handicrafts industries, which have a lot of income and employment generation potential in both the tribal and non-tribal areas of Himachal Pradesh.

*The production of different varieties is possible mainly in tribal areas of the State and for this purpose agro-processing units can be set in the rural areas so that the farmers can get remunerative prices for their products on the one hand and unemployed persons can employed be gainfully in these activities on the other. Another related aspect, which needs encouragement, is development and introduction of new and improved varieties of livestock mainly in non-tribal areas and partly in tribal areas. The people be encouraged to take up fisheries, poultry and pig-rearing activities in a big way. These activities require low income investment and their gestation period is also small.

In nutshell, the findings of the study reveal that due to different agro-climatic conditions as well as regional variations, the problems related to employment and unemployment should be addressed separately in the tribal and non- tribal areas in the state of Himachal Pradesh. The need of the hours demands that the emphasis of the policy makers should be on development of wool based industry, horticultural product based industry, carton boxes industry in the tribal areas as well as bamboo based industry, leather processing units, agro based industry, handloom and handicrafts in the non-tribal areas for creating more gainful employment opportunities. Hence, in order to reduce the extent of unemployment emphasis should be give to education i.e. mainly professional and technical so that the smaller holdings are suitably equipped to take up employment in the modern sector of the economy and in the higher work status categories. Such activities will help the rural economy in two ways viz., by stopping the migration of people form rural to urban areas in search of employment and by way of creating employment near the villages, thus lead to the general development of the State. Similarly, regional location specific approach can play important role in removing the regional imbalances as well as the socio-economic inequalities prevailing in the tribal and non- tribal areas of Himachal Pradesh.

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WOMEN SELF HELP GROUPS IN THE UPLIFTMENT OF TSUNAMI VICTIMS IN KANYAKUMARI DISTRICT

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ABSTRACT
On 26th December, 2004 a volcanic earth quake measuring 9.30 rector's intensity shook the Indonesian coast at 6.30 am (IST). The earth quake in the sea formed tremendous waves and tides called Tsunami. The impact of Tsunami was in the form of demise of near and dear ones over night, making orphans and widows, loss of personal belongings like, jewels, cash, cloth cooking utensils, educational by tsunami. The population affected by Tsunami was 9, 84,564. The houses / huts damaged were 1, 26,182. The human lives lost their life in tsunami in Tamilnadu were 8,010. There were 3,432 people injured. In Kanyakumari District, 33 coastal villages were affected by tsunami, which resulted in the loss of 798 lives, apart from 750 persons injured. The active role played by SHGs in assisting Tsunami affected women wiped the hard tears of those who have been wounded by Tsunami. All these indicate that the incomes of the poor have increased as a result of the intensity of poverty (poverty gap) among the poor has come down. The women acquired some non-land assets, health, nutrition and educational status of children improved. After Tsunami the SHG's in Kanyakumari district have been more active than ever before. The main reason for this prospering trend among SHGs is the encouragement it got from Govt. It is particularly true in the case of SHGs functioning in the Tsunami affected area in Kanyakumari District. The SHGs have not only provided financial assistance but also other non monetary assistances bolstering confidence in the minds of Tsunami affected women. The main assistances due from SHGs to its members are infusing self confidence with women, increasing saving habit, creating self employment, creating co-operative sprite, upliftment of the area, improving leadership quality, relieving from the clutches of the money lenders.

KEYWORDS
Household, leadership quality, poverty, Tsunami, and upliftment.

INTRODUCTION
Rural development and alleviation of poverty are the twin major hurdles that any developing nation faces to which India is no exception. Poverty is a multi faceted concept. It is a universal phenomenon. The phenomenon of poverty does not only affect the individual but is a producer of danger to nations. The phila delphia charters have postulated that, "poverty any where constitutes a danger to prosperity everywhere". The social status of women is a reliable indicator of the social development of the society. Rural women in India suffer from being both economically and socially invisible. Individual poor rural women can overcome economic deprivation. To counter powerlessness and economic deprivation women need to alter their self-image and therefore social image. To give rural women visibility and to enable society to come in contact with poor rural women they must get organized into groups. Thus the arrangement for credit supply to the poor through **Self Help Groups** (SHGs) is emerging fast as a promising tool for promoting income generation and economic empowerment for women in rural areas. The formation of SHGS in rural areas has created awareness among women about social issues and emboldened them to take up their cause with the authorities.

ORIGIN OF SHGS

The origin of SHGs is from the brain child to Grameen Bank of Bangladesh which was founded by the **Prof. Mohammed Yunus** of Cittangong University in the year 1975. This was exclusively established for the poor. "If women are given power there must be a reformation in the society". The self help organizations are functioning with this motto. The first SHG was started in 1992 in Tamil Nadu. An SHG is a small economically homogeneous affinity group of the rural poor voluntarily coming together to save all amounts regularly which are deposited in a common fund to meet their emergency needs and to provide collateral free loans with terms decided by the group at the market driven rates. **SHGs or micro credit groups** have been recognized as useful tools to help poor access financial resources not available to them previously and help them break through the stronghold of exploitative money lenders.

To improve the living standards of masses, several schemes have been devised and programmes were attempted by the planners. Of all the schemes and programmes, none of them, attract the involvement of the beneficiaries. This is the main reason for many of the schemes to fail to achieve their benchmark level objectives. To overcome these difficulties a new scheme has been devised and being tried by our policy makers into the recent past. This is the beginning of the Self Help Groups (SHGs), a non-governmental organization in rigorously formed both at the rural and urban centers with active participation of the targeted beneficiaries. The major break away of this scheme, from the earlier ones is the participation of the targeted beneficiaries. Hence, a natural interest arouse in the minds of researcher to undertake a study area to verify the amiability and performance of **Women Self Help Groups** (WSHGs).

Self Help Group (SHG) is defined as a voluntary group valuing personal interaction and mutual aid as means of altering or ameliorating problems perceived as alterable, processing and personal by most of its participants, over the last few years: the Self Help approach has been utilized in a growing number of projects and programmes.

The objectives of Self Help Group are:
- Development of leadership qualities
- Self-confidence building
- Increasing social awareness
- Improving the status of the women in the family and society
- Improvement in the family welfare
- Functional literacy
- Awareness of legal rights
- Economic development
- Inculcating the habit of savings
- Increasing income
- Increasing assets

- Access to market, choice of activities
- Getting out of money lenders clutches

The coastal district of Tamil Nadu suffered massive destruction and damage to life and property on26-12-2004 by the **TSUNAMI**. In Kanniyakumari district women Self Help Groups have made a significant impact on the life of its members. It is especially true during and after Tsunami which hit the southern part of the Indian continent in 2004.In the upliftment of women worstly hit by Tsunami, the Self Help Groups functioning in Kanyakumari district have played an immense role which never could be forgotten. The present paper explains the impact of Self Help Groups on the upliftment of women in the tsunami hit area in Kanyakumari district.

THE SPECIFIC OBJECTIVES PERTAINING TO THIS STUDY ARE:

- To study the extent of benefits extended by Self Help Groups to their members in ameliorating their problems after tsunami.
- To evaluate the impact of SHG's in the upliftment of their members in Kanyakumari District.
- To locate the problems faced by members of SHG's in availing of assistances.

METHODOLOGY

The data collected from 100 sample respondents through an interview schedule from randomly selected Self Help Groups functioning in the tsunami hit area has been used for the study. All the respondents have been living in the tsunami hit area and directly affected by tsunami. Scaling method is employed to evaluate the different assistances availed by the respondents. The first ranking assistance gets 7 scores followed by other assistances in descending order. Similarly for evaluating the problems faced by members scaling method with seven scores has been employed. Secondary data collected from DRDA, Nagercoil, KSS, Nagercoil and other published sources have also been used.

Galab and **Chandrasekhara Rao** (2003) in their study based on the review of some relevant studies found that participation in SHGs has improved the access of women to credit. This has helped women in reducing their dependence on moneylenders. The women have invested the credit obtained from SHGs in new economic activities and or strengthening the old activities. They have contributed to the occupational diversification at the household level. The non-agricultural activities undertaken by the women helped the households to obtain income from low risk activities. All these indicate that the incomes of the poor have increased as a result of the intensity of poverty (poverty gap) among the poor has come down. The women acquired some non-land assets, health, nutrition and educational status of children improved.

TSUNAMI

On 26th December, 2004 a volcanic earth quake measuring 9.30 rector's intensity shook the Indonesian coast at 6.30 am (IST). The earth quake in the sea formed tremendous waves and tides called Tsunami (Japanese word meaning 'harbour waves' **Tsu** means **'harbour'** and **Nami** stands for **'waves'**) which hit the Indian coast between 8.30 am (IST) and 11.30 am (IST). Today Tsunami has become a cautioning word for every Indian citizen from children to very old person in India. Before December 2004 nobody in India was aware of Tsunami. In 2004 the Tsunami had made a bad impact in Indian continent. Many coastal parts of the country especially in Tamilnadu were much affected in India. Among the worst hit districts in Tamilnadu next to Nagapattinam, Kanyakumari is the most affected one. The unprecedented devastation with distortions impacted in the coastal region caused unimaginable socio-economic challenges before the humanity as whole. The traditional and hardworking fisherman community suffered heavy losses.

The impact of Tsunami was in the form of demise of near and dear ones over night, making orphans and widows, loss of personal belongings like, jewels, cash, cloth cooking utensils, educational by tsunami. The population affected by Tsunami was 9, 84,564. The houses / huts damaged were 1, 26,182. The human lives lost their life in tsunami in Tamilnadu were 8,010. There were 3,432 people injured. In Kanyakumari District, 33 coastal villages were affected by tsunami, which resulted in the loss of 798 lives, apart from 750 persons injured. There were 2536 houses fully damaged and 3965 houses partially damaged. Agricultural and Horticultural crop in an area of 297.26 ha were damaged and 1080 farmers were affected. There were 1187 livestock lost their lives. There were 91 small traders in the coastal area were heavily damaged. Further 4 schools, 30 anganwadis and 12 sanitary complexes were damaged. The roads damage in the district by Tsunami was 123.36 kms. The other damages caused by tsunami in the district are: materials like books, bags etc. The confirmed death in Indonesia was 1, 30,736, in Srilanka 35,322, in India 12,045 Thailand it was 5,395.In Tamilnadu 13 districts were affected

1. The bridge connecting Mela manakudy and Keezha manakudi which was constructed at a cost of Rs.8.60 crores got completely washed away.
2. The China Muttom fishing harbor near Kanyakumari was also severely damaged.
3. Regarding the electricity supply 2601 LT poles, 58 kms of conductors, 1316 public lights and 27,294 individual connections were damaged.
4. The ferry service between Kanniyakumari and the Vivekananda rock memorial was stopped because of the damages to the ferry and the boat jetty.
5. Water supply to Kottilpadu, Colachal, Simoncolony, Kadiapattinam, Keezha manakudy, Mela manakudy,Azhikal,Pillaithoppu were severely affected.

SELF HELP GROUPS IN ACTION

There are 2393 Self Help Groups exclusively functioning for the welfare of women in Kanyakumari District. Since SHGs have been directly assisting women, the Govt. encouraged the women in Tsunami hit area to start as many SHGs as possible, were by the Govt felt that the Tsunami hit women could be uplift at the earliest. As the out come many number of SHGs were formed in the Tsunami hit area after Tsunami. The details of new SHGs formed in the Tsunami hit area in Kanyakumari District are presented in table 1

TABLE-1: SELF HELP GROUPS FORMED IN KANYAKUMARI DISTRICT AFTER TSUNAMI

Sl. No	Name of the Town Panchayat	No. of SHGs formed
1	Kanyakumari	361
2	Reethapuram	104
3	Manavalakurichi	125
4	Kallukottam	223
5	Ganapathypuram	205
6	Mandaikadu	152
7	Pallapallam	143
8	Puthalam	152
9	Anjugramam	67
10	Kollencode	403
Total		1935

Source: NABARD, Nagercoil, Kanniyakumari District

Table 1 shows the details of the growth of SHGs in Kanyakumari District after Tsunami. Though SHGs have been started throughout the district the growth is high in the Tsunami hit area. As the maximum of 403 SHGs were formed in Kollencode Town Panchayat followed by Kanyakumari panchayat with 361 SHGs and Kallukottam with 223 SHGs. In the Tsunami hit area in Anjugrammam Panchayat 63 SHGs allowed were formed after Tsunami. The main reason for the lag in the growth of SHGs in Anjugramam Panchayat is that for the upliftment of women who have been affected by Tsunami, revolving fund is sanctioned by the Govt. of

Tamilnadu in priority to those groups functioning in the Tsunami affected area. The details of revolving fund sanctioned for the SHGs functioning in Tsunami affected area in Kanyakumari district is presented in table 2.

TABLE- 2: REVOLVING FUND SANCTIONED FOR SELF HELP GROUPS IN KANYAKUMARI DISTRICT

Sl. No	Name of the Town Panchayat	Revolving fund sanctioned (Rs.in lakhs)
1	Kanyakumari	29.70
2	Reethapuram	15.30
3	Manavalakurichi	12.10
4	Kallukottam	14.90
5	Ganapathypuram	48.50
6	Mandaikadu	19.80
7	Pallapallam	31.40
8	Puthalam	27.90
9	Anjugramam	16.30
10	Kollencode	46.80
	Total	262.70

Source :NABARD, Nagercoil, Kanniyakumari District

Women in the Tsunami hit area have developed their family and set aside their loses made by Tsunami not alone by joining in the SHG, but also undergoing various training programmes conducted by various agencies. The NGO's sponsoring SHGs conduct several training programme which include basic orientation training and skill development training. Both of the training programmes imparted by the NGO's guided the members of SHGs to start industrial activities. Further the programmes instill confidence in the minds of Tsunami hit women which makes them to be bolder to face the challenges. The details of basic orientation training programmes and skill development programmes conducted in Tsunami hit area for SHG members is presented in tables 3 and 4.

TABLE-3: BASIC ORIENTATION TRAINING IMPARTED TO SELF HELP GROUPS IN KANYAKUMARI DISTRICT AFTER TSUNAMI

Sl no	Name of the Town Panchayat	Total no of SHGs	Basic Orientation training	
			No. of SHGs	Expenditure
1	Kanyakumari	361	210	4.43
2	Reethapuram	104	54	1.12
3	Manavalakurichi	125	58	1.23
4	Kallukuttam	223	106	2.20
5	Ganapathipuram	205	185	3.88
6	Mandaikadu	152	94	1.96
7	Pallapallam	143	120	2.53
8	Puthalam	152	134	2.81
9	Anjugramam	67	57	1.22
10	Kollencodu	403	164	3.44
	Total	1935	1182	24.82

Source:NABARD, Nagercoil, Kanniyakumari District

TABLE-4: SKILL TRAINING IMPARTED TO SELF HELP GROUPS IN KANYAKUMARI DISTRICT AFTER TSUNAMI

Sl no	Name of the Town Panchayat	Total no of SHGs	Skill Training	
			No. of SHGs	Expenditure
1	Kanyakumari	361	40	0.80
2	Reethapuram	104	95	1.90
3	Manavalakurichi	125	94	1.88
4	Kallukuttam	223	36	0.72
5	Ganapathipuram	205	32	0.64
6	Mandaikadu	152	22	0.44
7	Pallapallam	143	43	0.86
8	Puthalam	152	50	1.00
9	Anjugramam	67	50	1.00
10	Kollencodu	403	0	0.00
Total		1935	462	9.24

Source: NABARD, Nagercoil, Kanniyakumari District

It is clear that in Kanyakumari district as a maximum 210 SHGs in Kanyakumari Town panchayat basic orientation training resulting in an expenditure of Rs.4.43 lakhs followed by Ganabathipuram Town Panchayat with 185 SHGs (Rs.3.88 lakhs) and Kollencode town panchayat with 164 groups (3.44 Lakhs).

In respect of skill training Reethapuram town panchyat topped the list with 95 SHGs (Rs 1.90) followed by Manavalakurichi town panchayat with 94 SHGs(Rs 1.88 lakhs).it is intresting to note that in kollencode town panchayat even though sufficient number of SHGs have undergone basic orientation training , no group has come forward to undergo skill training . it all shows that still there is hesitation among SHGs to undergo various traning programmes and whereby they could improve their well being.

IMPACT OF SHGS ON THEIR MEMBERS AFTER TSUNAMI

After Tsunami the SHG's in Kanyakumari district have been more active than ever before. The main reason for this prospering trend among SHGs is the encouragement it got from Govt. It is particularly true in the case of SHGs functioning in the Tsunami affected area in Kanyakumari District. The SHGs have not only provided financial assistance but also other non monetary assistances bolstering confidence in the minds of Tsunami affected women. The main assistances due from SHGs to its members are infusing self confidence with women, increasing saving habit, creating self employment, creating co-operative sprite, upliftment of the area, improving leadership quality, relieving from the clutches of the money lenders.

The details of the impact of SHGs made on its members in the Tsunami hit area in Kanyakumari District by way of different assistances listed above is furnished in table 5.

TABLE -5: IMPACT OF SELF HELP GROUPS ON MEMBERS

Sl.No	Weight	7	6	5	4	3	2	1	Total	Rank
	Particular	I	II	III	IV	V	VI	VII		
1	Infusing self confidence	21 147	22 132	9 45	15 60	21 63	12 24	0 0	471	2
2	Women increasing saving habit	34 238	20 120	10 50	24 96	9 27	3 6	0 0	537	1
3	Creating self employment	12 84	10 60	30 150	15 60	3 9	10 20	20 20	403	4
4	Creating co-operative sprite	8 56	13 78	15 75	11 44	18 54	21 42	14 14	363	5
5	Uplift of the area	2 14	12 84	11 55	14 56	15 45	20 40	26 26	320	6
6	Improving leadership quality	7 49	8 48	5 30	9 36	9 27	27 54	35 35	279	7
7	Relieving from the clutches of the money	16 112	15 90	20 100	12 48	25 75	7 14	5 5	444	3

Source: Primary data

It is clear from table that women in the Tsunami hit area have been assisted by SHGs in a large scale. Among the various assistances 'increasing saving habit' among members of SHGs gets highest priority with 537 weighted scores. Hence SHG's in the Tsunami hit area has much impacted on its members through increasing saving habit. Next to this assistance SHG's have much impacted through the variable self confidence with 471 and hence it gets second priority among respondents. The least impacting variable on members is relieving from the clutches of the money lenders with 444 scores. Thus the analysis of the data reveals that SHG's have impacted in the upliftment of its members in different forms.

Inspite of the hard initiatives there have been several criticisms leveled against SHG's by its member because of the problems encountered by them in availing the benefits especially after Tsunami. The various problems and difficulties experienced by the members of SHG's in the Tsunami hit area in Kanyakumari District are lack of strong leadership, financial deficit, misuse of the group money by leaders, lack of education among members , non awareness of government scheme, non repayment of loan by members and other miscellaneous problems.

The major problems faced by the members of Self Help Groups in the tsunami hit area are presented in table 6.

TABLE -6: PROBLEMS FACED BY MEMBERS OF SELF HELP GROUPS

Sl.No	Problems Weight	7 I	6 II	5 III	4 IV	3 V	2 VI	1 VII	Total	Rank
1	Lack of strong leadership	32 24	20 120	9 45	24 96	9 27	4 8	2 2	522	1
2	Financial deficit	21 147	20 120	10 50	15 60	21 63	11 22	2 2	464	2
3	Misuse of group money by leaders	7 49	8 48	5 25	9 36	9 27	26 52	36 36	273	7
4	Lack of education in member	8 56	13 78	15 75	11 44	18 54	17 34	18 18	359	5
5	Non awareness of government scheme	18 126	15 90	20 100	12 48	25 75	7 14	3 3	456	3
6	Members don't repay the loan amount	12 84	14 84	30 150	15 60	3 9	15 30	11 11	416	4
7	Other problems	2 14	10 60	11 55	14 56	15 45	20 40	28 28	322	6

Source: Primary data

Table 6 shows that members of SHG's in Tsunami hit area in Kanyakumari District have been facing many problems after Tsunami. The paramount problem which affects the sample respondents in the study area is the absence of strong leadership. The sample data reveals that absence of strong leadership has been attributed as a major problem by majority of the members with 522 scores. The other important problem which are perceived to be much affecting the members are financial deficit (464 scores) and non awareness of Government schemes (456 scores) respectively in priority. The least faced problem by SHGs in the study area is misuse of group fund by leaders. It all shows that inspite of the several assistances provided for the upliftment of members, it has several criticisms.

CONCLUSION

In the upliftment of women affected by Tsunami SHGs have been doing Women service. SHGs have been so active after Tsunami in Kanyakumari District. The active role played by SHGs in assisting Tsunami affected women wiped the hard tears of those who have been wounded by Tsunami. It is possible for the SHGs only through the co-operation of the Government and NGOs who have sponsored SHGs. Among the different assistenced extended by SHGs a few alone have much impacted on women than the other assistances. Inspite of these hard facts there are hue and cry in some corners as to the pains and problems as they are experiencing in availing assistances from SHG's. A much more concentrated effort on the part of the SHG's will remove such hardship.

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FOREIGN BANKS IN INDIA – EMERGING LEADER IN BANKING SECTOR

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ABSTRACT

Indian banking system consists of long tradition and it has been evaluated from various period. Foreign Banks are not new phenomena in Indian bank in system, Standard Charted Bank started its operation in 1858 and Citi Bank opened its branch in India in 1902. Similarly Hong Kong and Shanghai Banking Corporations are functioning in India since 1953. Foreign banks in India have brought the latest technology and new banking practices. This helped the domestic banks to improve their performance and provide better customer service. Operation of foreign banks in India is well planned and effectively managed by the talented personnel. This study encompasses in its scope an analysis of brief history of Indian banking system, foreign banks in India, distribution of branches and ATM of foreign banks, advances to priority sectors and financial indicators of foreign banks.

KEYWORDS

Foreign banks**,** Non Performing Assets, Automated Teller machines, Financial Indicators, priority sector lending.

INTRODUCTION

Bank is one of the unavoidable and applicable to almost all the walk of the individuals, industries and governmental activities. Economic growth and development of the country completely depends on the banking system. Bank is an institution with versatile activates associated with corporate sectors, socio economic development, and overall growth of the country. A country can perform successfully and provides smooth flow of assistance to their citizition only through well organized and defined banking system. Indian banking system consists of long tradition and it has been evaluated from various period. The operations of banks have been determined by leading bank scheme, differential interest scheme, credit authorization scheme, micro finance scheme, financial inclusion and technology up gradation etc. when the competition is the major trouble; there is a need of reinforcement of the activities and innovation in their services as worldwide. It happened extensively and accepted by the Indian commercial banks when the foreign banks entered into India. This study encompasses in its scope an analysis of brief history of Indian banking system, foreign banks in India, distribution of branches and ATM of foreign banks, advances to priority sectors and financial indicators of foreign banks.

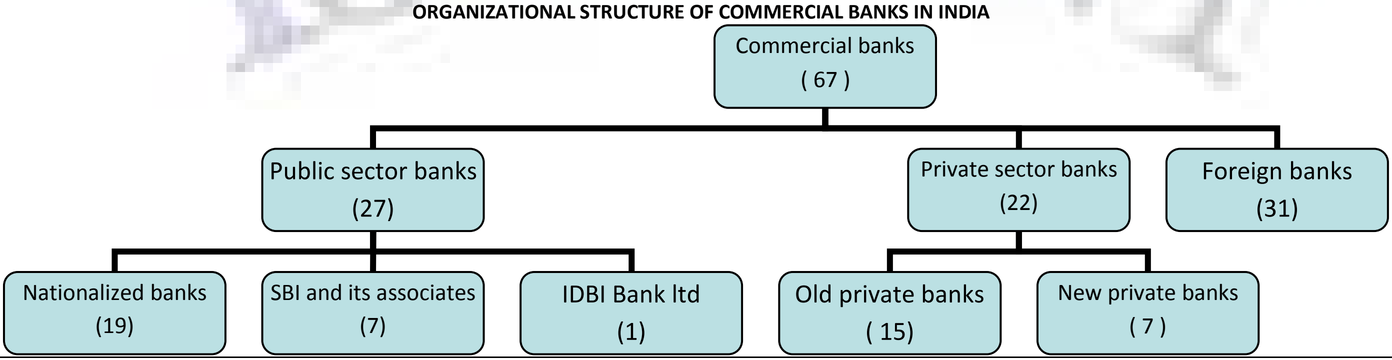
OPERATIONAL DEFINITION

Foreign Banks: Foreign banks in private sector are branches of those banks which are incorporated in foreign countries.
Scheduled Commercial Banks: Scheduled Commercial Banks is one which is registered in the second schedule of the Reserve Bank of India and Scheduled commercial banks fulfill the conditions of Reserve Bank of India.
Non Performing Assets (NPA): Assets which ceased to yield income of the banks assets remain out of order for two quarters, they become non performing assets.
Gross NPA : Gross NPA is the amount outstanding in the borrower account, in books of the bank other than the interest which has been recorded and not debited to the borrower account.
Net NPA: Net NPAs is the amount of gross NPAs less (1) interest debited to borrower and not recovered and not recognized as income and kept in interest suspense (2) amount of provisions held in respect of NPAs and (3) amount of claim received and not appropriated.
Priority Sector: The concept of priority sector was evolved with the introduction of social control over banks and nationalization of banks. 40% of the total credit to Priority sector advances.
Spread: Spread is a function of cost of resources and yield on funds deployed. Interest earned includes interest discount on advances and bills income an investment interest on balances, for simple terms spread means the different between the interests carried to interest expended.

BRIEF HISTORY OF INDIAN BANKING SYSTEM

Banking in India originated in the last decades of the 18th century. The first two banks were The General Bank of India which started in 1786, and the Bank of Hindustan, both of which are now defunct. Indian banking system is well structured and defined with various regulatory and autonomous bodies. Bank of Bengal (1809) was the first bank in India and followed by the bank of Bombay (1840), and bank of madras (1843) by the East Indian Company. These banks were also called as presidency banks. The first entirely Indian joint stock bank was the Oudh Commercial Bank, established in 1881 in Faizabad. It failed in 1958 and next was the Punjab national bank (1895) followed by the bank of India (1906) , the Canara bank (1906) , the Indian bank (1907) , bank of Baroda (1908) and many other banks were established over the periods of times.
In 1920, three presidency banks were amalgamated and renamed as imperial bank of India under the special act. In 1935, reserve bank of India was constituted through the reserve bank of India act 1934. In 1955, imperial banks were nationalized and renamed as state bank of India. Due to the socio economic development of the nation, fourteen major commercial banks were nationalized in 1969 and, six more banks were nationalized in 1980. As at end march 2009, scheduled commercial banks constitute of 27 public sector banks including seven SBI and its associates, 19 nationalized banks and the IDBI bank. 22 private sector banks including seven new private sector banks and 15 old private sector banks . Presently there 31 foreign banks are functioning in the country.

ORGANIZATIONAL STRUCTURE OF COMMERCIAL BANKS IN INDIA



FOREIGN BANKS IN INDIA

Foreign Banks are not new phenomena in Indian bank in system. Standard Charted Bank started its operation in 1858 and Citi Bank opened its branch in India in 1902. Similarly Hong Kong and Shanghai Banking Corporations are functioning in India since 1953. However, globalization and economic policies implemented in late 1980s encouraged many international banks to open their shops here. At almost all the international banks are operating in India.

Foreign banks in India have brought the latest technology and new banking practices. This helped the domestic banks to improve their performance and provide better customer service. Due to their fast and efficient working style and better customer service foreign banks in India has captured a large customer base. Foreign banks in India have brought competition among public sector banks in terms or efficiency and customer service. They completed change the way banks worked in India. Today nearly all domestic banks streamlined their operation by introducing technology and best banking practices.

Foreign banks have an access to international networks and product development which helps to achieve a degree of gross pollination and cross fertilization of financial ideas and products .Foreign banks help to introduce a high degree of professional management and the market concept into banking. Presence of foreign banks help in reducing vulnerability to external shocks and also foreign banks help to provide innovations in several product areas such as trade, finance, payment system currency and interest rate risk management and financial engineering. Foreign banks are introductions of state of art technology and system.

TABLE 1 LIST OF FOREIGN BANK BRANCHES OPERATING IN INDIA -2008

Sr. No	Name of Bank	No. of Branches in India
1	AB Bank Ltd	1
2	ABN-AMRO Bank	30
3	Abu Dhabi Commercial Bank Ltd.	2
4	American Express Banking Corp	1
5	Antwerp Bank Ltd. –	1
6	Bank Internasional Indonesia	1
7	Bank of America NA	5
8	Bank of Bahrain and Kuwait B.S.C	2
9	Bank of Ceylo	1
10	Bank of Nova Scotia	5
11	Bank of Tokyo-Mitsubishi UFJ Ltd	3
12	Barclays Bank PLC	5
13	BNP Paribas	9
14	Calyon Bank	6
15	Chinatrust Commercial Bank	1
16	Citibank	41
17	DBS Bank Ltd.	10
18	Deutsche Bank AG	13
19	HSBC Ltd	47
20	JPMorgan Chase	1
21	JSC VTB Bank Ltd.	1
22	Krung Thai Bank Public Co. Ltd	1
23	Mashreqbank psc	2
24	Mizuho Corporate Bank Ltd.	2
25	Oman International Bank S.A.O.G	2
26	Shinhan Bank	2
27	Societe Generale	2
28	Sonali Bank	2
29	Standard Chartered Bank	90
30	State Bank of Mauritius Ltd.	3
31	UBS AG	1
Total		**293**

Source: Trends and Progress of Banking in India -2008-09

The table reveals that the foreign banks in India in the year 2008. It shows that, there are 293 foreign banks are operating in the country, of which, United Kingdom based Standard Chartered Bank constituted more branches (90) and followed by Hong Kong based HSBC Ltd (47) USA based Citibank (41) and Netherlands based ABN-AMRO Bank (30) .

DISTRIBUTION OF BRANCHES OF FOREIGN BANKS IN INDIA

RBI has given guidelines to stretch the banking operation throughout the country by means of opening many branches and as easy mechanism. Average Population per branches has been reducing from 16000 in 2007 to 15000 in 2009 and it will further reduced to 10000 in the year end 2010.forien banks are opening their branches only in the urban and metropolitan area . RBI encourages opening new branches by the commercial banks to deliver the banking services to all the people of the country as their convenient and domestic places.

TABLE 2: DISTRIBUTIONS OF BRANCHES OF FOREIGN BANKS IN INDIA

Year	Rural	Semi urban	Urban	Metropolitan	Total
2005	-	1	31	219	251
2006	-	1	37	224	262
2007	-	2	43	227	272
2008	--	2	49	226	277
2009	4	4	52	233	293

Source: Trends and Progress of Banking in India

The above table explains that the distribution of foreign bank ranches in India during the period of 2005 -2009. There are 293 branches of foreign banks in India which includes 233 branches in metropolitan areas, 52 in urban areas and four branches each in semi urban and rural areas .it clearly shows that the foreign banks have been opening branches every year since its establishment in India.

ATM OF FOREIGN BANKS IN INDIA

Automated Teller machines (ATMs) are now the heart of banking. Usages of ATMs have substantially increased in India and it is not uncommon to see huge queues of people in ATMs, especially during off business hours and holidays. ATMs have brought down the work pressure substantially from cash tellers in bank branches, and many a branches may have deserted looks due to increasing usage of ATMs.

Worldwide, South Korea boasts of having the highest density of ATMs of about 1600 such machines per million of population. The US has 1300 ATMs per million of people. The two emerging economies – India and China – have a poor record on ATMs density, thanks to the country's huge population! While China has 55 ATMs per million of population, India has only 28 ATMs per million of population, which is almost half of China. On the number front, China has more than 80,000 ATMs, while, the USA has more than 4, 00,000 ATMs. As on August 2007, number of ATMs in India is exceeding 25,000, and it is expected to have another 40,000 additions in the next two years.

TABLE 3 ATM OF FOREIGN BANKS IN INDIA

Year	Total Branches	On site ATM	Off site ATM	Total ATM
2005	251	210	435	645
2006	262	232	648	880
2007	272	249	711	960
2008	277	269	765	1034
2009	293	270	784	1054

Source: Trends and Progress of Banking in India

Foreign banks are innovator and leading part of introduction of the technology based services to the customers particularly ATM. There are 43,651 ATM in the country as on March 2009, foreign banks alone established 1054 ATM which includes 270 on site and 784 off site ATM in the year 2009. Per cent of ATMs to branches in public sector banks has 49.2, private sectors banks has 172.4 percent and foreign banks has 359.7 per cent. Foreign banks are the sole responsible to popularize the ATM services to the public widely and delivering the continent services.

FINANCIAL INDICATORS

Commercial banks in India are vibrant sectors which are directly related with the financial system of the country. Success of the banking sector measured only with help of their financial performance. Banking sectors also need to earn profit to meet their basic and necessary expenditure requirements. How the banking sectors perform their services with verities of services to attract the customers and making profit. Foreign banks are the profit oriented banks which have to make huge earnings to their promoters. Financial performance of the banks can be measured with certain parameters such as income, expenditure, spread, operating profit and net profit. In this regards, how the foreign banks performing in their business successfully even in the aggressive and profound customarised circumstances are shown in the below table.

TABLE 4 FINANCIAL INDICATORS *(Rs. in crore)*

Year	Income	Expenditure	Spread	Operating profit	Net profit
2005	13,036.16	11,053.79	5129.02	4577.30	1982.37
2006	17,662.07	14,593.47	7141.33	6658.44	3068.60
2007	24,956.06	20,370.90	10403.89	9599.81	4585.16
2008	35004.00	28,392.00	13813.00	14,047.00	66112.00
2009	45,213.00	37,703.00	17,506.00	20098.00	7510.00

Source: Trends and Progress of Banking in India

In the year 2009, income of the foreign banks in India amounted to Rs. 45,213 crore as against Rs. 13,036.16 crore in the year 2005. Expenditure also has been increasing according to their business volume. It has amounted to Rs. 37,703 crore in 2009 as against Rs. 11,053.79 crore in 2005. Foreign banks earned remarkable operating profit and net profit which amounted to Rs. 20,098 crore and Rs. 7510 crore respectively in the year 2009. Spread of the foreign bank also achieved in effective manner which amounting to Rs 17,506 crore. It concludes that the foreign banks in India during the study periods 2005 to 2009 performed well and attracted comfortable earnings with innovative and technology based services to the customers.

ADVANCES TO PRIORITY SECTOR LENDING

The description of the priority sector was formulated in 1972 and in the year 1974, public sector banks were advised 33.3 percent of their net credit to the priority sector by the end of March 1979. In 1978, private sector banks were also advised to lend a minimum of 33.3 per cent of their total advances to the priority sector by the end of March 1980. Foreign banks in India were also advised to progressively increase their advances to priority sector to 15 per cent of their net bank credit by end march 1992. In n1993, this target was again increased to 32 per cent to net bank credit to be achieved by March 1994. And it has divided into two sub targets of 10 per cent in respect of SSI and 12 per cent for export was fixed.

TABLE -5 ADVANCES TO PRIORITY SECTOR LENDING *(Rs. in crore)*

Year	SSI (Rs)	%	Exports (Rs)	%	Total(Rs)	%
2005	6907	10.2	12,339	18.3	23,843	35.4
2006	8446	9.6	17,102	19.4	30,449	34.6
2007	11,648	10.3	20,714	18.3	37,835	33.4
2008	15,489	12.2	28,954	22.7	50,254	39.5
2009	18,138	11.2	31,511	19.4	55,483	34.3
Average		**10.7**		**19.6**		**35.5**

Source: Trends and Progress of Banking in India

Foreign banks are contributing to the economic development of the country particularly to the MSME and export sectors over a period. SSI sector advances by the foreign banks are almost above the target level of 10 per cent of the net bank credit except in the year 2006 and advances to export sectors averagely recorded to 19.6 per cent which is above the target level of 12 per cent of their net bank credit. Overall advances to priority sectors lending accounted on 35.5 per cent averagely which is more than the target level of 33.3 per cent of the foreign banks.

As regards the amount of advances to SSI constitutes to Rs. 18,138 crore in 2009 as against rs.6907 crore in 2005 and exports amounted to Rs. 31,511 crore in 2009 as against Rs.12, 339 crore in 2005. As on whole the total priority sector amounted to Rs. 55,483 crore in 2009 as against Rs.23, 843 crore in 2005. It is concluded that foreign banks are providing more lending to the priority sector particularly to the exports oriented activities.

NPA AS PERCENTAGE OF ADVANCES

Non performing assets are one of the very crucial problems in the banking sector which distress the overall growth and profitability of the commercial banks. keeping in view the fact that the chances as well as the extent of recovery of NPA reduces overtime, the RBI took several measures in recent years to expedite recovery of NPA by banks strengthening the various channels of NPA recovery such as debt recovery tribunals, lok adalats, corporate debt restructuring mechanism and the Securitisation And Reconstruction of Financial Assts and Enforcement of Security Interest Act 2002. Foreign banks are effectively managing the NPA since its operation in the country through harsh and forced mechanism.

TABLE 6 NPA AS PERCENTAGE OF ADVANCES

Banks	Gross NPA		Net NPA	
	2008	2009	2008	2009
Nationalized Bank	2.1	1.8	0.7	0.7
SBI	2.6	2.6	1.4	1.5
Private sector banks	2.5	2.9	1.2	1.5
Foreign banks	1.8	4.0	0.9	1.7
Average	**2.6**	**2.8**	**1.1**	**1.4**

Source: Trends and Progress of Banking in India

The above table indicates that the NPA of commercial banks in the year 2008 and 2009. Gross NPA is high in SBI (2.6) and low (1.8) in foreign banks in the year 2008. but in the year 2009 , grass NPA was high (4) in foreign banks due to global financial crisis and poor performance in export sectors .As regards the net NPA , nationalized banks recorded low(0.7) and foreign bank recorded high (1.7) . Average net NPA is 1.1 and 1.4 respectively in the year 2008 and 2009.

MAJOR FINDINGS

Indian banking system is one of the well organized and regulated system which concentrates to socio economic development of the nation and also it brings the capital formation to the industrial sectors from the public through the savings and investment. Foreign banks are transformed the traditional function of banking services into technology based. The following are the major findings of the present study.

Foreign Banks in India always brought an explanation about the prompt services to customers. After the set up foreign banks in India, the banking sector in India also become competitive and accurative.

Foreign banks are one of the dominant and emerging sectors in overall development of the country. presently there are 293 foreign banks are operating in the country, off which, United Kingdom based Standard Chartered Bank constituted more branches (90) .

Foreign banks are concentrating to major cities and urban areas of the country to open more braches. There are 293 branches of foreign banks in India which includes 233 branches in metropolitan areas, 52 in urban areas.

Foreign banks are the pioneer of the introduction of innovative and technology based services to the customer .The first ATM was installed by the HSBC bank in 1987 and now there are 43,651 ATM in the country as on March 2009, foreign banks alone established 1054 ATM which includes 270 on site and 784 off site ATM in the year 2009.

During the study periods 2005 to 2009, foreign banks were performed well and attracted comfortable earnings.

As on whole the total priority sector advances by the foreign banks amounted to Rs. 55,483 crore in 2009 as against Rs.23, 843 crore in 2005.

Average gross NPA of foreign banks were 2.6 and 2.8 and Average net NPA is 1.1 and 1.4 respectively in the year 2008 and 2009.

SUGGESTIONS

Banking sectors become an unavoidable part and partial of the human being which is initiated from ancient periods. Over long decades, it transformed and gradually upgraded with modern technology and instruments. Now banking in the country is one of efficient arrangements which facilitate savings, investments, delivery of financial services and socio economic development of the country. Hence the banking system should be flattering channalised through universal literature, because only 40 per cent of the people covered by the banking services.

Indian economy forced to meet the global competition due to globalization, during the initial periods; it was struggled but it slowly reinforced and ready to meet the comprehensive challenges. In this regards, banking sectors underwent certain threats as well as opportunities from the foreign banks in India.

Foreign banks provides innovative products through modern technology to their customers, it was new to the Indian banking sectors particularly to the public sector banks. Consequently the public sector banks were competent to updates themselves to meet the global competition.

Information technology plays a key role in the foreign banks which is well integrated with all kind of innovations. Hence they can provide speed and quality of services to the customers without any delay. It is highly influenced and creates healthy atmospheres in the Indian banking industries.

As per the RBI guidelines, banking services should be reached to almost all the people by 2012. For that, concept of financial inclusion has been introduced in an affordable cost of services. Foreign banks opened only four branches in the rural areas, it may increase in future because , rural areas are becoming the economic centre due to industrialization and establishment of special economic zones .

Operation of foreign banks in India is well planned and effectively managed by the talented personnel. Quality of man power is good rather than quantity in foreign banks whereas in the public sector banks poor man power with lack of control. Man power expenditure is very high in the public sector banks while compare to foreign banks which lead to affect the overall profitability position of the banks. Hence the public sector banks should learn and adopt the man power polices of foreign banks.

CONCLUSION

Approaches of public sector banks with the customers and public are hardly and even in certain stages, banking personnel refuse to render services. In many of the public sector banks are functioning only because of the benefit of their employees and not for the public. But in the foreign banks, every employee has an accountability to perform certain level of profitability. Foreign banks also contributing to the economic development of the country. These banks also achieved the target of priority sector lending to 35.5 per cent of their net bank credit. Above all formulation of best practices, introduction of innovative products, implementation of modern technology are possible only with help of the foreign banks. Hence there is a need of more foreign banks in the country to become the super power in the world.

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AN EMPIRICAL EVALUATION OF FINANCIAL HEALTH OF FERTILIZER INDUSTRY IN INDIA

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ABSTRACT

Over the past four decades, a sizeable international literature on financial distress prediction has developed. Amidst multidimensional studies prevailing in the literature, this paper tries to analyze the financial health of fertilizer sector in India and test whether Altman's Z score model can foresee correctly the corporate financial distress of the fertilizer sector in Indian context for the study period, 2000-01 to 2006-07. The Z score from the analysis shows that it is less than 1.81 in all the years implying that this sector has increased its debts and will be facing insolvency in near future unless regulatory measures are taken to tackle the adverse situation. The study demonstrates that individual ratio within the multiple discriminate framework has depicted miserable picture signifying inefficiencies within the firms that may endanger financial health of Indian fertilizer companies.

KEYWORDS

Corporate distress, Altman, Bankruptcy, fertilizer, industry.
JEL Classification: G33, C49.

INTRODUCTION

The financial crisis has already thrown many financially strong companies out of business all over the world. All these have happened because they were not able to face the challenges and the unexpected changes in the economy. Financial distress for a company is the ultimate declaration of its inability to sustain current operations given its current debt obligations. Basically, all firms must have some debt loads to expand operation or just to survive. Good economic planning often requires a firm to finance some of its operation with debt. The degrees to which a firm has debt in excess of assets or is unable to pay its debt as it comes due are the two most common factors in corporate financial distress.

Distress prediction model will assist a manager to keep track of a company's performance over a number of years and help in identifying important trends .The model may not specifically dictate the manager what is wrong but it should encourage them to identify problems and take effective action to minimize the incidence of failure. A predictive model may warn an auditor of company's vulnerability and help to protect them against charges of 'negligence of duties in not disclosing the possibility of corporate failure [Jones, F.L (1987)]. In addition, lender may adopt predictive model to aid in assessing a company defaulting on its loan. Regulatory agencies are concerned whether a monitored company is in danger of failure. A company may be made exempted from anti trust prohibitions and permitted to merge under Failing Company Doctrine if it can be demonstrated that it is in danger of insolvency or failure.

Research on financial distress has been carried out for many years in many countries, especially in industrially developed countries. Altman (1997) studied the financial ratios of public companies which indicate corporate financial distress in the United States.Almeida and Philippon(2000) analyzed risk adjusted cost of financial distress of public companies in the United States which have issued corporate bonds and have difficulties to pay coupon and its bond. Fitzpatrick(2004) conducted empirical research on the dynamic of financial distress of public companies in the United States whereas Gennaiolla and Rossi(2006) explored the optimal solution of financial distress in Sweden.Outtecheva(2007) analysed probability of financial distress risk and the way of avenues to avoid financial distress in NYSE.

On the other hand, a very few studies have been conducted in developing countries.Chang(2008) studied the corporate governance characteristics of financially distressed firms in Taiwan.Hui and Jhao(2008) explored the dynamics of financial distress of 193 companies which have experienced financial distress in China during 2000- 2006.Zulkarnian(2006) analyzed the corporate financial distress among Malaysian listed firms during Asian financial crisis.Ugurlu and Hakan(2006) conducted a research to predict corporate financial distress for the manufacturing companies listed in Istanbul stock exchange for the period, 1996-2003. Chiung-Ying Lee and Chia-Hua Chang (2010) analyzed the financial health of public companies listed in Taiwanese stock exchange using Logistic Regression model of early warning prediction.

There are also a number of careful research studies using data from United States firms that provide various methods to identify failing firms. After the establishment of Altman's Z score model, abundant studies have done further research on the z score model, including Deakin(1972), Taffler (1983), Goudie (1987), Agarwal and Taffler (2007), Sandin and Porporato (2007). Many studies also have been done relevant to the Ohlson model, including Lau (1987), Muller, Steyn-Bruwer, and Hamman (2009).

Despite several attempts to predict bankruptcy, four decades after Altman (1968)'s seminal study, financial distress prediction research has not reached an unambiguous conclusion. Lack of harmony in the study of financial distress prediction is partially attributable to the nature of the explanatory variables, as studied for four decades. A number of researchers have attempted to discriminate between financial characteristics of successful firms and those facing failure. The objective has been to develop a model that uses financial ratios to predict which firms have greatest likelihood of becoming insolvent in the near future. Altman is perhaps the best known of these researchers who uses multiple discriminate analysis (MDA) which is also used in this study.

In the midst of limited literature regarding the financial distress of public companies in the developing countries like India, using Altman's Z Score model, this paper is therefore devoted to study the dynamics of financial distress of public companies of Indian fertilizer industry listed in Bombay Stock Exchange.

OBJECTIVES OF THE STUDY

The study investigates the overall financial performance of fertilizer industry in India and also predicts the financial health and viability of the industry. In order to fulfill the objective, we empirically try to reexamine the most commonly referred method in credit risk measurement research, Altman's Z-score model, by using recent bankruptcy data from 2000-01 to 2006-07.

RECENT FERTILIZER POLICY PREVAILING IN INDIA

The Indian fertilizer sector has been under strict government control for most of the period since independence. A price and distribution control system was considered to be necessary not only to ensure fair prices and equal distribution all over the country but also to provide incentives for more intensive use of fertilizers. A control system of licensing and approval of collaboration aimed at standardizing technology and capacity of plants. The goal of government intervention was to improve agricultural productivity and thus the basic supply of food.Oil crisis in mid-seventies led to steep increase in cost of import or production resulting in fall in consumption of fertilizer. Based on the recommendation of the Marathe committee's report, Retention Pricing Scheme was introduced for Nitrogenous fertilizer in November, 1977, for complex fertilizer in 1979, for single super phosphate in May1982, for Amonnium Chloride in 1985.

Under RPS, cost of production was decided on the basis of norms. It provided reasonable return on net worth to the producing companies and induces efficiency at the same time.RPS era was highly controlled but witnessed spectacular increase in indigenous capacity built up and fertilizer consumption till 1990s.

In the wake up of economic liberalization in 1991and rising subsidy bill, the Government explored to alternatives of RPS.Phosphatic and Potassic fertilizers were decontrolled w.e.f August, 1992. Immediate impact was steep decline in the consumption of the said fertilizers. Concession scheme on Phosphatic and Potassic fertilizers was introduced in October, 1992 and has been operative for these fertilizers. In July 1991, price decontrol of low analysis nitrogenous fertilizers has been introduced.

August 1991 saw Dual Pricing Policy which adopts 30% price increases of fertilizer for big farmers, no price increase for small and marginal farmers. In August 1992, Partial Decontrol of prices, distribution and movement of phosphatic and potassic fertilizer, recontrol of low analysis nitrogenous fertilizers,10% price reduction for urea fertilizer1992 until March 1993 have been initiated.

For Urea, RPS Continued till March, 2003 and from April, 2003, New Pricing Scheme (NPS) has come into force which is a modification of RPS.Unit specific retention price scheme replaced with group based concession scheme and the present NPS is valid till March, 2010.

Therefore, during post liberalization era, fertilizer industry has been highly controlled but reforms have taken place in both up stream and down stream sectors. Inputs decontrolled resulting in abnormal increase in the prices of raw materials. Cost plus approach with stringent regulations and procedures have not induced any investment in the sectors. So, the health of the existing fertilizer industry has been adversely affected. Capacity of fertilizer remained stagnant and there is a surge in demand for fertilizer in recent years. Country resorted to high imports to meet increasing demand.

A survey of the literature shows that the majority of international failure prediction studies employ MDA (Altman 1984; Charitou et al. 2004).No exclusive conclusion was found in a review of international applications of default prediction studies. The application of financial distress measurement literature flows into the international application of credit risk measurement to verify the robustness of such measures and techniques in different countries. Applying research on indicative variables and statistical methodologies internationally, Altman and Narayanan (1997) tried to identify financially stressed companies, but they concluded that no statistical method was consistently dominant.

Precious contribution supported by empirical evidence in this regard mostly from manufacturing companies in the United States and the other developed countries has been found to exist, but in view of the review of literature, it is explicitly evident that very little research work has been conducted so far on analyzing the financial distress of industrial sectors in India. The above mentioned pertinent research gaps in Indian context after a thorough and careful review of literature have guided me to undertake the study of assessing financial health of individual fertilizer industry in India which is based on Altman's Z score model.

METHODOLOGY

Sources of Data:

In order to test the financial health of India's fertilizer ware companies, Altman's Z score model has been used in this study which is based on secondary data. The data from the published sources is the basis for analysis.The required accounting information for Z score analysis is obtained form *CMIE Prowess* Database. The financial data used are annual and cover a period of 2000-01 to 2006-07 comprising of 46 publicly traded companies lised in *Bombay Stock Exchange*. Some credit financial analysists were concerned that since the original model requires stock price data, it was only applicable to publicly traded companies.

Econometric model:

Individual financial ratio to predict the financial performance of an enterprise may only provide caution when it is too late to take a corrective action .Further, a single ratio does not convey much of the sense. There is no internationally accepted standard for financial ratios against which the result can be compared. Edwin Altman, therefore, combines a number of accounting ratios (liquidity, leverage, activity and profitability) to form an index of the probability, which was effective indicator of corporate performance in predicting bankruptcy. The Z score is a set of financial ratios in a multivariate context, based on a multiple discriminated model for the firms, where a single measure is unlikely to predict the complexity of their decision making.

The Z scores, developed by Professor Edward I. Altman, is perhaps the most widely recognized and applied model for predicting financial distress(Bemmann,2005).Altman developed this intuitively appealing scoring method at a time when traditional ratio analysis was losing favour with academics (Altman,1968).Altman Z scores model requires a firm to have a publicly traded equity and be a manufacturer. Altman (1968) collected data from 33 bankruptcies and 33 non-bankruptcies, during the period 1946-1965, to find discriminating variables for bankruptcy prediction. In his seminal paper, Altman evaluated 22 potentially significant variables of the 66 firms by using multiple discriminant analysis to build the discriminant function with five variables. This model was later modified to Altman model (1993) that uses the same variables multiplied by different factors.

Components of the Altman Z Score:

The Z Score calculation is based entirely on numbers from the company's financial reports. It utilizes seven pieces of data taken from the corporation's balance sheet and income statement. Five ratios are then extrapolated from these data points(shown in table-1).

TABLE-1: DETAILS OF DATA POINT

Data Point	Where Found in Financials	Formula to Calculate
1. Earnings before Interest & Tax (EBIT)	Income Statement	Gross Earnings - Interest - Income Tax Expense
2. Total Assets	Balance Sheet (Total Assets)	Total Current Assets + Net Fixed Assets
3. Net Sales	Income Statement (Net Revenues or Sales)	(This number in the Financials reflects deduction of returns, allowances and discounts)
4. Market (or Book) Value of Equity	Book Value found on Balance Sheet (Stockholders Equity)	Total Market Value (public Cos.) or Book Value (private Cos.) of all shares of stock
5. Total Liabilities	Balance Sheet	Total Current Liabilities + Long Term Debt
6. Working Capital	Balance Sheet	Total Current Assets - Total Current Liabilities
7. Retained Earnings	Balance Sheet (Stockholders Equity)	(Portion of net income retained by the corporation rather than distributed to owners/shareholders)

The independent variables of five ratios are measured in ratio scale. The operational definition of dependent and independent variables are presented in table-2.

TABLE-2: OPERATION OF INDEPENDENT AND DEPENDENT VARIABLES

Conceptual definition	Operational definition	Expectation	Scale
X1 = Working Capital/Total Assets	Measures liquidity, a company's ability to pay its short-term obligations. The lower the value the higher the chance of bankruptcy.	Relationship with probability of failure	Ratio
X2 = Retained Earnings/Total Assets	Measures age and leverage. A low ratio indicates that growth may not be sustainable as it is financed by debt.	Relationship with probability of failure	Ratio
X3 = EBIT*/Total Assets *Earnings Before Interest and Tax	A version of Return on Assets (ROA), measures productivity – the earning power of the company's assets. An increasing ratio indicates the company is earning and increasing profit on each dollar of investment.	Relationship with probability of failure	Ratio
X4 = Market Value of Equity/Total Liabilities	Measures solvency – how much the company's market value would decline before liabilities exceed assets.	Relationship with probability of failure	Ratio
X5 = Net Sales/Total Assets	Measures how efficiently the company uses assets to generate sales. Low ratio reflects failure to grow market share.	Relationship with probability of failure	Ratio

The discriminant function is as follows:

$$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5,$$

Where $X_1 \equiv$ Working capital/total assets (WC/TA),

$X_2 \equiv$ Retained earnings/total assets(RE/TA),

$X_3 \equiv$ EBIT/total assets (EBIT/TA),

$X_4 \equiv$ Market value of equity/book value of liability (MVE/TL),

and $X_5 \equiv$ Sales/total assets(S/TA).

Z= Overall index of Bankruptcy.

When using this model, Altman concluded that:

Z score < 1.81 = High probability of bankruptcy,

Z score> 3 = Low probability of bankruptcy

Z score= In between 1.81 and 3.0= Indeterminate.

A score of Z less than 2.675 indicates that a firm has a 95% chance of becoming bankrupt within one year. However, Altman result shows that in practice, scores between 1.81 to 2.99 should be thought of as a grey area. Firms, with Z scores within this range, are considered uncertain about credit risk and considered marginal cases to be watched with attention. Firms with Z scores below 1.81 indicate failed firm, Z score above 2.99 indicates non-bankruptcy. Altman shows that bankrupt firms have very peculiar financial profiles one year before bankruptcy. These different financial profits are the key intuition behind Z score model.

Eidleman (1995) defines each of the above ratios as follows:

X_1 is a liquidity ratio , the purpose of which is to measure the liquidity of the assets 'in relation to firm's size' .It is the measure of net liquid asset of a concern to the total capitalization which measures the firms ability to meet its maturing short-term obligations.

X_2 is an indicator of the 'cumulative profitability' of the firm over time which indicates the efficiency of the management in manufacturing, sales, administration and other activities.

X_3 is a measure of firm's productivity which is crucial for the long-term survival of the company. It is a measure of productivity of an asset employed in an enterprise. The ultimate existence of an enterprise is based on earning power. It measures how effectively a firm is using its resources. It measures the managements overall effectiveness as shown by the returns generated on sales and investment.

X_4 defines how the market views the company. The assumption is that with information being transmitted to the market on a constant basis, the market is able to determine the worth of the company. This is then compared to firm's debt. It is reciprocal of familiar debt equity ratio. Equity is measured by the combined market value of all shares, while debt includes both current and long term liabilities. This measure shows how much of an asset can decline in values before liabilities exceed the assets and the concerns become insolvent. It measures the extent to which the firm has been financed by debt. Creditors look to the equity to provide the margin of safety, but by raising fund through debt, owners gain the benefit of marinating control of the firm with limited investment.

X_5 is defined as a 'measure of management ability to compete'. The capital turnover ratio is the standard financial measure for illustrating the sales generating capacity of the assets.

ANALYTICAL RESULTS

The five financial ratios mentioned above have been utilized as yardsticks in the equation for evaluating the financial health of India's fertilizer companies for the period 2000-01 to 2006-07.

Proportion of working capital in the total assets also gives investors an idea of the company's underlying operational efficiency. Money that is tied up in inventory or money that customers still owe to the company cannot be used to pay off any of the company's obligations. So, if a company is not operating in the most efficient manner (i.e.slow collection), it will show up as an increase in the working capital. This can be seen by comparing the working capital from one period to another; slow collection may signal an underlying problem in the company's operations. The better a company manages its working capital, the less the company needs to borrow. Even companies with cash surpluses need to manage working capital to ensure that those surpluses are invested in ways that will generate suitable returns for investors.

In the study, the content of working capital in the total assets(X_1) has been increased from 33.81% in 2000-01 to 15.24% in 2006-07 with fluctuations which indicates the declining use of working capital over the years. The declining usage of working capital is unfavourable for efficient running of the companies and it affects the financial health of the companies. Low level of working capital may enhance the risk of liquidity . Lower the working capital, greater the risk and also higher the profitability of the firm. A declining working capital ratio over a longer time period could also be a red flag that warrants further analysis.The declining usage of working capital in the industry may have several indications. Declining usage of working capital may cause shortage of liquid funds which may be the hindrance in necessary purchasing and accumulation of inventories causing more chances of stock out. On the other hand, it implies lesser number of debtors which may cause lower incidences of bad debts which may result into overall efficiency in the organizations.

TABLE-3: ANALYSIS OF RESULTS BY USING ALTMAN'S MODEL: 2000-01 TO 2006-07

Ratios/Years	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Net working capital (Rs crores)	15148	13001	10680	7986	4878	7732	11132
Total assets(Rs crores)	44796	43874	43817	44809	46298	50719	53083
X1	33.81%	29.63%	13.63%	24.34%	10.54%	11.33%	15.24%
Retained earning (Rs crores)	-1405	-4906	-6915	-9322	-10296	-10797	-11387
Total assets(Rs crores)	44796	43874	43817	44809	46298	50719	53083
X2	-3.14%	-11.18%	-15.78%	-20.80%	-22.24%	-21.29%	-21.45%
Earning before interest &tax(Rs crores)	2544	2165	1531	2610	3004	2260	3144
Total assets(Rs crores)	44796	43874	43817	44809	46298	50719	53083
X3	5.68%	4.93%	3.49%	5.82%	6.49%	4.46%	5.92%
Market value of equity (Rs crores)	6220	6451	6348	6887	6788	6806	6353
Book value of total liability(Rs crores)	22086	21039	21513	21258	20016	22287	24950
X4	28.16%	30.66%	29.51%	32.40%	33.91%	30.54%	25.46%
Sales(Rs crores)	33312	33012	33118	35696	42663	48674	50678
Total assets(Rs crores)	44796	43874	43817	44809	46298	50719	53083
X5	74.36%	75.24%	75.58%	79.66%	92.15%	95.96%	95.47%
0.012*X1	0.406	0.356	0.164	0.292	0.127	0.136	0.183
0.014*X2	-0.044	-0.157	-0.221	-0.291	-0.311	-0.298	-0.300
0.033*X3	0.187	0.163	0.115	0.192	0.214	0.147	0.195
0.006*X4	0.169	0.184	0.177	0.194	0.203	0.183	0.153
0.010*X5	0.744	0.752	0.756	0.797	0.922	0.960	0.955
Z scores	1.462	1.298	0.991	1.184	1.155	1.128	1.186

Source: Author's own estimate

The retained earnings to total assets ratio(X_2) measures the company's ability to accumulate earnings using its total assets. Retained earnings to total assets ratio indicates the extent to which assets have been paid for by company profits. Retained earnings to total assets ratio near 1:1 (100%) indicates that growth has been financed through profits, not increased debt. A low ratio indicates that growth may not be sustainable as it is financed from increasing debt, instead of reinvesting profits. Increasing retained earnings to total assets ratio is usually a positive sign, showing the company is more able to continually retain more earnings.

In our study, the content of retained earning to total assets was recorded as -3.14% in 2000-01 and during the next couple of years, the ratio gradually decreases sharply to -21.45% in 2006-07which means that companies failed to generate adequate reserve for future prospect of the business. This means that firms within fertilizer industry may have compelled to pay off major portion of assets out of increased debt instead of reinvesting profit.

The ratio of a company's earnings before interest and taxes (EBIT) against its total net assets(X_3) is considered an indicator of how effectively a company is using its assets to generate earnings before contractual obligations must be paid.

The greater a company's earnings in proportion to its assets (and the greater the coefficient from this calculation), the more effectively that company is said to be using its assets.

This is a pure measure of the efficiency of a company in generating returns from its assets, without being affected by management financing decisions. Return on Assets gives investors a reliable picture of management's ability to pull profits from the assets and projects into which it chooses to invest. The overall efficiency of an enterprise can be judged through the ratio of EBIT/Total asset. The operating efficiency ultimately leads to its success. The ratio of EBIT to total assets ranges from 3.49% to 5.92%which is a good sign for the company.

Market Value of Equity to Total Liabilities(X_4) ratio shows how much business's assets can decline in value before it becomes insolvent. Those businesses with ratios above 200 percent are safest. The result shows that India's fertilizer sector did not maintain the above standard during the study period. The market value of equity was less than that of debt. In the study, the ratio of market value of total equity to book value of debenture was 28.16% in 2000-01 which decreased to 25.46% in 2006-07.It means that book value of debenture ranges from 71.86% to 74.54% during the study period. Decrease in this ratio has an indication that the firm's sale price are relatively low and that its cost is relatively high. The proportion in which interest bearing funds (debt) and interest free funds (equity) employed had a direct impact on its financial performance. The sector will have the chance of facing interest burden in near future. Therefore, a reasonable change in the financial structure is needed to protect the company from adverse financial performance.

Net Sales to Total Assets ratio(X_5) indicates the effectiveness with which a firm's management uses its assets to generate sales. A relatively high ratio tends to reflect intensive use of assets. It is a measure of how efficiently management is using the assets at its disposal to promote sales. A high ratio indicates that the company is using its assets efficiently to increase sales, while a low ratio indicates the opposite. The financial performance and profitability centred on sales revenue. The ratio of sales volume to total assets, though ideally expected to be 2:1, during the study period clearly showed that this sector had not been successful in achieving the standard ratio through sales but ratio gradually improves. Poor ratio of turnover indicates that companies failed to fully utilize the assets which will have an adverse impact on the financial performance of the company.

Present analysis reveals that fertilizer industry under our study was just on the range of collapse zone. In our study, Z values for all the seven years were less than 1.81(Z scores< 1.81=High probability of bankruptcy). This indicates that overall financial performance of India's fertilizer sector was very unviable and may lead to corporate bankruptcy in near future unless regulatory measures are undertaken immediately.

The poor financial health of this sector may be probably due to the reasons that the sector failed to achieve the sales target due to underutilization of available capacity, which contributed for the deterioration of financial health of the sector. Excess debt (as reflected in X_3 factor) was a serious concern as it carries with high interest burden which has affected the financial health of the sector.

In the light of the above financial problems faced by the sector concerned, it is suggested that capital structure of India's fertilizer sector has to be changed in such a way to have ideal debt equity ratio and hence re-scheduling of debt is an urgent necessity. The sector should take necessary step to fully utilize the available capacity and therefore, fixed asset are to be purchased only when the company can utilize its capacity fully. The company must fix up achievable sales target and steps should be taken to achieve it. Managerial incompetence should be taken care of, if any. For this, decentralization in decision making process should be introduced which gives the employees the initiative and responsibility to adapt their behaviour and decisions according to changes in working environment.

Research shortcomings:

The MDA methodology violates the assumption of normality for independent variables.The bankruptcies studied in USA by Altman were for the period between 1946-1965.Hence, it is not clear whether past experience will always be transferable to future situations given the dynamic environment in which the business operates.. Consequently, there is a question whether Altman's model is as useful now as it was when developed. Moreover, the study concentrates on a single specific industry where data on a relatively small sample of failed and non-failed companies was available. Consequently, there is some risk that the results have been affected by the sample size.

SUMMARY&CONCLUSIONS

The premises underlying this paper (also all empirical works on corporate failure prediction) is that corporate failure is a process commencing with poor management decisions and that the trajectory of this process can be tracked using accounting ratios. This study tries to examine the combined effect of various financial ratios with the help of Multiple Discriminate Analysis (MDA).In this study, it has been examined whether Zscore model developed by Altman, can predict bankruptcy. It is found from the analysis that individual ratio within the multiple discriminate framework has depicted dismal dull picture and indicate inefficiencies within the firms that may endanger financial health of Indian fertilizer companies. It is also apparent that this model is useful in identifying financially troubled companies that may be bankrupt. This empirical evidence will provide a warning signal to both internal and external users of financial statement in planning, controlling and decision making. The warning signs and Z score model have the ability to assist management for predicting corporate problems early enough to avoid financial difficulties.

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A STUDY ON EMPLOYEE ABSENTEEISM IN INDIAN INDUSTRY: AN OVERVIEW

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ABSTRACT
Absenteeism is a serious workplace problem and an expensive occurrence for both employers and employees seemingly unpredictable in nature. A satisfactory level of attendance by employees at work is necessary to allow the achievement of objectives and targets by a department. Employee Absenteeism is the absence of an employee from work. It is a major problem faced by almost all employers of today. Employees are absent from work and thus the work suffers. Absenteeism of employees from work leads to back logs, piling of work and thus work delay. These articles mainly focus on employee chronic absenteeism where the factors contributing to absenteeism from work include individual and environmental factors, and the remedial measure taken for such absenteeism in Indian industries.

KEYWORD
Motivation, Job Satisfaction, commitment.

INTRODUCTION
Absenteeism is the term generally used to refer to unscheduled employee absences from the workplace. Many causes of absenteeism are legitimate—personal illness or family issues, for example—but absenteeism also can often be traced to other factors such as a poor work environment or workers who are not committed to their jobs. If such absences become excessive, they can have a seriously adverse impact on a business's operations and, ultimately, its profitability Absenteeism means an individual remain absent without any information or intimation to his superior. Whether it is one day or more. Absenteeism can at mass level also. Normally, 6-8 % absenteeism found in all industry. If it beyond consecutively, then the matter is serious. If any individual is on paid leave or outdoor, how can this absenteeism. It's only about unauthorized absenteeism. If individual remain absent beyond 3 times in period of 12 months without intimation, then he called as Habitual absent case. Or any individual remain absent more than 10 consecutive days also serious. In this case, we can issue Charge sheet to workmen who is habitual or 10 days absent.

Absenteeism in Indian industries is not a new phenomenon. It is the manifestation of a decision by employees not to present themselves at their place of work, at a time when it is planned by the management that they should be in attendance. Many research reports reveal that there has been a phenomenal increase in absenteeism in some industrial sectors. The absenteeism becomes a problem to organizational management particularly when employees absent from their work environment without giving sufficient notice and by justifying their stand by furnishing fake reasons. The reasons for absenteeism are many. The factors contributing to absenteeism from work includes individual and environmental factors. These consists of sickness, accidents, occupational diseases, poor production planning (flow of work), bad working conditions and inadequate welfare conditions, lack of trained laborers, insecurity in employment, collective bargaining process, rigid control system, lack of supervisory support, lack of interest, lack of cohesive and cordial culture and so on. The individual reasons may vary from organization to organization depending upon the organizational climate, employee's attitude and influence of external organizational factors (market forces, social activities that influence the industrial culture prevailing in geographical zone etc.).

NEED FOR THE STUDY
- To find out the detrimental to industries in respect to the increased costs associated with high instances of absenteeism.

STATEMENT OF THE PROBLEM
- To Study the existing literature on factors influencing employee Absenteeism
- To find out the various personal factors affecting absenteeism.

OBJECTIVES OF THE STUDY
- To analyze the firm are highly influenced on financially burdened due to the lost productivity and increased costs associated with finding and paying for temporary replacements. Absenteeism is positively correlated with turnover.
- This resulting turnover also financially impacts a business because of the costs associated with finding and a permanent replacement.

METHODOLOGY
DATA ANALYSIS
The Investigation used both qualitative and quantitative research methods. The initial quantitative study (100 respondents) aimed at identifying the important variables that drive the factors influencing absenteeism from the employees. The main research instrument used was a well structured questionnaire that was administered among the respondents mainly through personal contacts. Sampling population included the employee from all age groups and different financial backgrounds. It was found in our study that 70% of the responses were obtained from people of moderate family and 30% from elite family with respect to per capita income. The sample frame consisted of people from different fields. Individual respondents were the sampling element. Some of the respondents were also interviewed in order to have an in-depth analysis and find out the main reason behind their absence. The above generated pie chart shows the percentage of respondents.

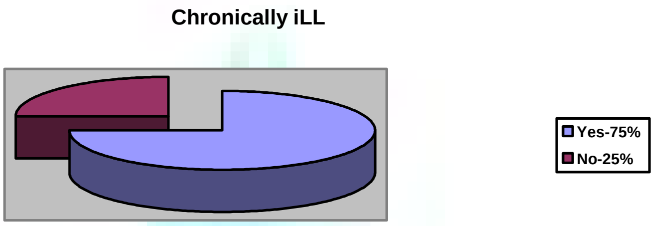
HYPOTHESIS

H0; There is no association between age of employee and attitude of employee towards absenteeism
H1; There is association between age of employee and attitude of employee towards absenteeism
Ho; There is no association between factors affecting employee absenteeism and working condition
H1; There is association between factors affecting employee absenteeism and working condition

PERCENTAGES OF RESPONDENT

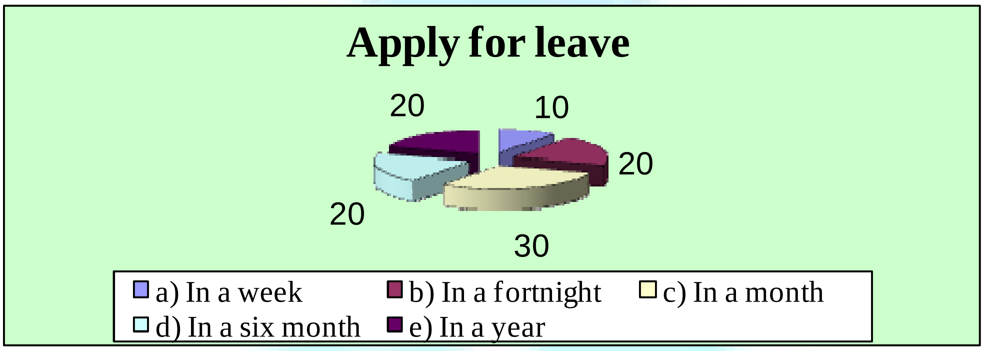
A: Chronically ill?

Total respondent	**= 100 (Men 50 and Women 50)**
Yes	= 75% (Men 40% & Women 35%)
No	= 25% (Men10% & Women 15%)



B. How often do they apply for leave?

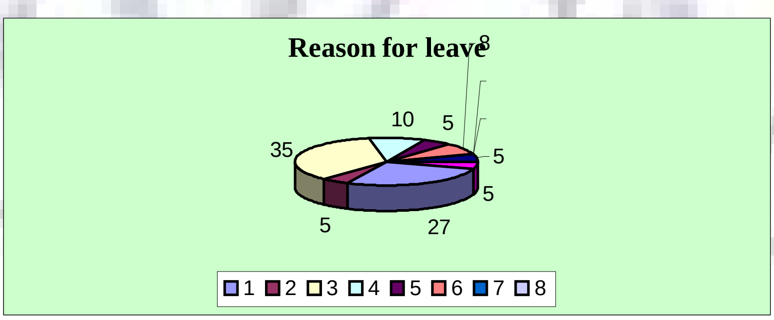
Total respondent	**= 100** (Men 50 and Women 50)
a) In a week	= 10
b) In a fortnight	= 20
c) In a month	= 30
d) In a six month	= 20
e) In a year	= 20



C: Require leave for which of the following reason?

Total respondent **= 100** (Men 50 and Women 50)

1) Marriage	= 27
2) Agricultural works	= 5
3) Sickness	= 35
4) Going around with friends	= 10
5) Fear from internal people	= 5
6) No interest in work	= 8
7) Not good relation with departmental colleague & supervisor	= 5
8) Fear from accident	= 5



CHRONIC ABSENTEEISM

A person who is a habitual absentee worker is called a chronic absentee worker. Such a person as compared to regular employee is absent from work not so much because of job or environment factors. Some of the following factors involves chronic absenteeism are

ENTREPRENEURS

Such chronic absentees were found to be engaged in several social and cultural activities for status, power, recognition and money and the millwork was too meager to satisfy al these interests. Yet most of them wanted to preserve their job because if provided security, fringe benefits, like housing, purchases at mill shop, loans and provident fund contribution. They had no complaints against work, company or supervisors and were found to belong to landowner and artisan families. They also changed jobs frequency to improve their status and occasionally gambled and drank.

STATUS SEEKER
They enjoyed the ascribed status and were keen to achieve and maintain it. Since they undertook many social activities they were mostly absent from work. They were vocal and provided counseling and guidance to others. Hence, they carried more weight with other employees.
EPICUREANS
The primary objective of epicureans was comfort and pleasure. They were characterized by excessive concern for physical comforts at the cost of money, did not change job yet had no involvement with the work. Except for the present job they did not involve themselves in any other economic activity. They were generally passive and took no responsibility.
FAMILY ORIENTED
They desired to be good family providers, regular employees and respectable citizens. However, over involvement with family distracted them from the very good of being a regular employee and good citizen. They were found to be withdrawn and disorganized.
SICK AND OLD
Some chronic absentees stayed away from work because of ill health, weak constitution, chronic illness and just old age. Yet they were compelled to hold on to work for economic reasons. However, their physical conditions made them less responsive to work.

GUIDELINES FOR ABSENTEEISM CONTROL
There are two types of absenteeism, each of which requires a different type of approach.
INNOCENT ABSENTEEISM
Innocent absenteeism refers to employees who are absent for reasons beyond their control; like sickness and injury. Innocent absenteeism is not culpable which means that it is blameless. In a labour relations context this means that it can not be remedied or treated by disciplinary measures.
CULPABLE ABSENTEEISM
Culpable absenteeism refers to employees who are absent without authorization for reasons, which are within their control. For instance, an employee who is on sick leave even though he/she is not sick, and it can be proven that the employee was not sick, is guilty of culpable absenteeism. To be culpable is to be blameworthy. In a labour relations context this means that progressive discipline can be applied. For the large majority of employees, absenteeism is legitimate, innocent absenteeism, which occurs infrequently. Procedures for disciplinary action apply only to culpable absenteeism. Many organizations take the view that through the process of individual absentee counselling and treatment, the majority of employees will overcome their problems and return to an acceptable level of regular attendance.

IDENTIFYING EXCESSIVE ABSENTEEISM
Attendance records should be reviewed regularly to be sure that an employee's sick-leave days are excessive compared to other employees. If a supervisor suspects that an employee is excessively absent, this can be confirmed through reviewing the attendance records. If all indications show that an employee is excessively absent, the next step is to gather as much information as possible in order to get a clearer picture of the situation. The employees' files should be reviewed and the employee’s immediate supervisor should document all available information on the particular employee's history.
INDIVIDUAL COMMUNICATION
After all available information has been gathered, the administrator or supervisor should individually meet with each employee whom has been identified as having higher than average or questionable (or pattern) absences. This first meeting should be used to bring concerns regarding attendance to the employee's attention. It is also an opportunity to discuss with the employee, in some depth, the causes of his or her attendance problem and possible steps he or she can take to remedy or control the absences. Listen carefully to the employee's responses.
The tone of the meeting should not be adversarial, but a major purpose of the interview is to let the employee know that management treats attendance as a very important component of overall work performance. Keep your comments non-threatening and work-oriented. Stick to the facts (i.e. patters, profiles, rates etc.). The employee should be given a copy of there attendance report with absences highlighted for discussion.
This interview will give the opportunity to explore in depth with the employee the reasons for his or her absence. Gather facts - do not make any assumptions. Provide support and counselling and offer guidance as the occasion demands to assist the employee to deal with the specific cause of the absence. Often, after the initial meeting employees reduce their absenteeism. The meeting shows that you are concerned and that absenteeism is taken seriously. The employee's attendance should be closely monitored until it has been reduced to acceptable levels. Appropriate counselling should take place as is thought necessary. If a marked improvement has been shown, commend the employee. The meeting should be documented and a copy placed in the employee's file.

PROOF OF ILLNESS
Sometimes it is helpful in counselling employees with excessive innocent or culpable absenteeism to inquire or verify the nature and reasons of their absence. The extent to which an employer may inquire into the nature of and reasons for an employee's absence from the workplace is a delicate issue. The concepts of an employee's privacy and an employer's need for information affecting the workplace often come into conflict. Seldom is the conflict more difficult to resolve than where personal medical information is involved. Unions will often strongly object to any efforts by management to inquire more deeply into the nature of an employee's illness. You will need to consider the restraints of any language in collective agreements in relation to this issue.
Generally speaking, however, the following "rules of thumb" can be derived from the existing jurisprudence:

1. There is a prevailing right to privacy on the part of an employee unless the employer can demonstrate that its legitimate business interests necessitate some intrusion into the employee's personal affairs.
2. When such intrusion is justified it should be strictly limited to the degree of intrusion necessitated by the employer's interests.
3. An employee has a duty to notify his employer of an intended absence, the cause of the absence and its expected duration. This information is required by the employer to meet its legitimate concerns to have at its disposal facts which will enable it to schedule work and organize its operation.
4. An absent employee has an obligation to provide his employer with information regarding any change to his condition or circumstances relating to it which may affect the employer's needs. As such, the interest of the employer in having this information outweighs the individual employee's right to privacy.
5. An employer rule requiring proof for every absence is unreasonable if an absenteeism problem does not exist.
6. A mere assertion by the person claiming to be sick is not satisfactory proof.
7. The obligation to prove sickness, where the employer requires proof, rests with the employee.
8. An employer is entitled upon reasonable and probable grounds to refuse to accept a physician's certificate until it contains sufficient information to satisfy the employer's reservations. (i.e. seen by physician, some indication of return to work, etc.). Non-production of a required medical certificate could result in loss of pay until the certificate is produced.
9. Where a medical certificate is rejected by an employer (as in #8 above) the employer must state the grounds for rejection and must point out to the employee what it requires to satisfy the onus of proof.
10. An employer may require an employee to prove fitness for work where it has reasonable grounds to do so. In a health care setting the nature of the employer's business gives it a reasonably irresistible interest in this personal information for the purpose of assessing fitness.
11. Where any unusual circumstances raise reasonable suspicion that an employee might have committed an abuse of an income protection program an employer may require an employee to explain such circumstances. For example, an employer may require responses as to whether the illness confined an employee to his/her bed or home; whether an employee engaged in any outside activity and the reasons for the activity.

CORRECTIVE ACTIONS FOR CULPABLE ABSENTEEISM

As already indicated, culpable absenteeism consists of absences where it can be demonstrated that the employee is not actually ill and is able to improve his/her attendance. Presuming you have communicated attendance expectations generally, have identified the employee as a problem, have met with him/her as part of your attendance program, made your concerns on his specific absenteeism known and have offered counselling as appropriate, with no improvement despite your positive efforts, disciplinary procedures may be appropriate. The procedures for corrective/progressive discipline for culpable absenteeism are generally the same as for other progressive discipline problems. The discipline should not be prejudicial in any way. The general procedure is as follows: [Utilizing counselling memorandum]

- **Initial Warning(s)**
- **Written Warning(s)**
- **Suspension(s)**
- **Discharge**

VERBAL WARNING

Formally meet with the employee and explain that income protection is to be used only when an employee is legitimately ill. Advice the employee that his/her attendance record must improve and be maintained at an improved level or further disciplinary action will result. Offer any counselling or guidance as is appropriate. Give further verbal warnings as required. Review the employee's income protection records at regular intervals. Where a marked improvement has been shown, commend the employee. Where there is no improvement a written warning should be issued.

WRITTEN WARNING

Interview the employee again. Show him/her the statistics and point out that there has been no noticeable (or sufficient) improvement. Listen to the employee to see if there is a valid reason and offer any assistance you can. If no satisfactory explanation is given, advise the employee that he/she will be given a written warning. Be specific in your discussion with him/her and in the counselling memorandum as to the type of action to be taken and when it will be taken if the record does not improve. As soon as possible after this meeting provide the employee personally with the written warning and place a copy of his/her file. The written warning should identify any noticeable pattern

SUSPENSION

If the problem of culpable absenteeism persists, following the next interview period and immediately following an absence, the employee should be interviewed and advised that he/she is to be suspended. The length of the suspension will depend again on the severity of the problem, the credibility of the employee's explanation, the employee's general work performance and length of service. Subsequent suspensions are optional depending on the above condition.

DISMISSAL

Dismissals should only be considered when all of the above conditions and procedures have been met. The employee, upon displaying no satisfactory improvement, would be dismissed on the grounds of his/her unwillingness to correct his/her absence record.

ABSENTEEISM AMONG MALE AND FEMALE EMPLOYEES

SEX STRUCTURE

In a way it is true that female employees take more leave than male workers i.e. the rate of absenteeism for female is 15.19% and for males 13.47%. but if we consider that maternity leave is an essential and unavoidable part of a female employee life and if we do not consider maternity leave of female employee, the rate of absenteeism on male and female employee becomes 13.47% and 13.51% respectively, which is about the same.

EDUCATION

In male employee, the higher the education the less the amount of leave taken whereas in female workers, the higher the education, the higher the rate of absenteeism unless there is a very high level of education i.e., the female employee is a post graduate or a Ph.D.

MARTIAL STATUS

Absenteeism increases in female employees when they are married whereas in male employee the opposite is true.

REASON FOR TAKING LEAVE

For most of the female employee the main reasons for taking leave are family responsibilities, domestic and household work etc. In male employee, personal work, family responsibilities, visit to native place, entertainment etc, are the reason for taking leave.

SCOPE OF THE STUDY

- The higher the rate of pay and the greater the length of service of the employee, the fewer the absences.
- As an organization grows, there is a tendency towards higher rates of absenteeism
- Absenteeism is generally higher in the night shift than in the day shift.
- The rate of Absenteeism is the lowest on pay day; it increases considerably on the following the payment of wages and bonus.
- Single employees are absent more frequently than married employees
- Younger employees are absent more frequently than older employees but the latter are absent for longer periods of time.
- Unionized organizations have higher absenteeism rates than non-union organizations
- Absenteeism is higher during the sowing (March – April – May) and harvesting season.

ANALYSIS

- Enhance job satisfaction.
- Reward and discipline employees for increased or decreased absenteeism.
- Implement a job rotation or job enlargement strategy.
- Motivation
- Management training program
- Teambuilding
- Incentive program

FINDINGS AND SUGGESTION

Many studies suggest that most of employee absenteeism, roughly between 60% and 70%, is due to reasons other than employee illness. The following are the most common reasons employees tend to miss work.

- Employees are stressed or preoccupied by personal matters, such as parental concerns, marital problems, community involvement, family well-being, care for elderly relatives, care for severely ill immediate family members, and so on.
- Employees are overwhelmed with their current working situation, or they are overworked due to workforce reductions and voluntary turnover.
- Employees are dissatisfied with their current working conditions, position, supervisor, or overall organization.
- Employees are not committed to their team, department, or organization.

- Employees are not challenged by their position and have increased feelings of burnout.

CONCLUSION

Absenteeism can be extremely difficult, but with the proper understanding of what causes absenteeism and how to reduce it, firm can limit the negative side effects of employee attendance issues. In addition to lowered workplace morale, less team cohesion, and decreased organizational commitment, employee absenteeism is detrimental to businesses in respect to the increased costs associated with high instances of absenteeism.

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LONG MEMORY MODELLING OF RUPEE-DOLLAR EXCHANGE RATE RETURNS: A ROBUST ANALYSIS

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ABSTRACT

Financial time series like exchange rates are highly persistent, i.e., that an unexpected shock to the underlying variable has long lasting effects. The persistence in the volatility of the time series is usually exemplified by a highly persistent fitted GARCH model. Traditional stationary ARMA processes often cannot capture the high degree of persistence in financial time series. In the last few years, more applications have evolved using long memory processes, which lie halfway between traditional stationary I(0) processes and the non-stationary I(1) processes. There is substantial evidence that long memory processes can provide a good description of many highly persistent financial time series. This study starts with an insight into Indian foreign exchange markets, and then last 37 years of continuous log returns of INR-USD exchange rates are analyzed for long memory effect. R/S test statists confirms the presence of long memory effect, parameters are estimated using Whittle's method. Further analysis shows that both long and short memory components makes fractionally integrated FARIMA (0,d,0) more stationary and FARIMA (2,.004,0) explains the variations

KEYWORDS

Foreign Exchange markets, Derivative Instruments

INDIAN FOREIGN EXCHANGE MARKET

The origin of the foreign exchange market in India could be traced to the year 1978 when banks in India were permitted to undertake intra-day trade in foreign exchange. However, it was in the 1990s that the Indian foreign exchange market witnessed far reaching changes along with the shifts in the currency regime in India. The exchange rate of the rupee, that was pegged earlier was floated partially in March 1992 and fully in March 1993 following the recommendations of the Report of the High Level Committee on Balance of Payments (Chairman: Dr.C. Rangarajan). The unification of the exchange rate was instrumental in developing a market-determined exchange rate of the rupee and an important step in the progress towards current account convertibility, which was achieved in August 1994.

A further impetus to the development of the foreign exchange market in India was provided with the setting up of an Expert Group on Foreign Exchange Markets in India (Chairman: Shri O.P.Sodhani), which submitted its report in June 1995. The Group made several recommendations for deepening and widening of the Indian foreign exchange market. Consequently, beginning from January 1996, wide-ranging reforms have been undertaken in the Indian foreign exchange market. After almost a decade, an Internal Technical Group on the Foreign Exchange Market (2005) was constituted to undertake a comprehensive review of the measures initiated by the Reserve Bank and identify areas for further liberalization or relaxation of restrictions in a medium-term framework.

The momentous developments over the past few years are reflected in the enhanced risk-bearing capacity of banks along with rising foreign exchange trading volumes and finer margins. The foreign exchange market has acquired depth (Reddy, 2005). The conditions in the foreign exchange market have also generally remained orderly (Reddy, 2006c). While it is not possible for any country to remain completely unaffected by developments in international markets, India was able to keep the spillover effect of the Asian crisis to a minimum through constant monitoring and timely action, including recourse to strong monetary measures, when necessary, to prevent emergence of self-fulfilling speculative activities (Mohan, 2006a).

FOREIGN EXCHANGE DERIVATIVE INSTRUMENTS IN INDIA

FOREIGN EXCHANGE FORWARDS

Authorized Dealers (ADs) (Category-I) are permitted to issue forward contracts to persons resident in India with crystallized foreign currency/foreign interest rate exposure and based on past performance/actual import-export turnover, as permitted by the Reserve Bank and to persons resident outside India with genuine currency exposure to the rupee, as permitted by the Reserve Bank. The residents in India generally hedge crystallized foreign currency/ foreign interest rate exposure or transform exposure from one currency to another permitted currency. Residents outside India enter into such contracts to hedge or transform permitted foreign currency exposure to the rupee, as permitted by the Reserve Bank.

FOREIGN CURRENCY RUPEE SWAP

A person resident in India who has a long-term foreign currency or rupee liability is permitted to enter into such a swap transaction with ADs (Category-I) to hedge or transform exposure in foreign currency/foreign interest rate to rupee/rupee interest rate.

FOREIGN CURRENCY RUPEE OPTIONS

ADs (Category-I) approved by the Reserve Bank and Ads (Category-I) who are not market makers are allowed to sell foreign currency rupee options to their customers on a back-to-back basis, provided they have a capital to risk weighted assets ratio (CRAR) of 9 per cent or above. These options are used by customers who have genuine foreign currency exposures, as permitted by the Reserve Bank and by ADs (Category-I) for the purpose of hedging trading books and balance sheet exposures.

CROSS CURRENCY OPTIONS

ADs (Category-I) are permitted to issue cross-currency options to a person resident in India with crystallized foreign currency exposure, as permitted by the Reserve Bank. The clients use this instrument to hedge or transform foreign currency exposure arising out of current account transactions. ADs use this instrument to cover the risks arising out of market-making in foreign currency rupee options as well as cross currency options, as permitted by the Reserve Bank.

CROSS CURRENCY SWAPS

Entities with borrowings in foreign currency under external commercial borrowing (ECB) are permitted to use cross currency swaps for transformation of and/or hedging foreign currency and interest rate risks. Use of this product in a structured product not conforming to the specific purposes is not permitted. [1] Reserve Bank of India. 2006. *Comprehensive Guidelines on Derivatives Market.*

FOREIGN EXCHANGE MARKET: AN ASSESSMENT

As per the Triennial Central Bank Survey by the Bank for International Settlements (BIS) on "Foreign Exchange and Derivatives Market Activity", global foreign exchange market activity rose markedly between 2001 and 2004 the strong growth in turnover may be attributed to two related factors. First, the presence of clear trends and higher volatility in foreign exchange markets between 2001 and 2004 led to trading momentum, where investors took large positions in currencies that followed persistent appreciating trends. Second, positive interest rate differentials encouraged the so-called "carry trading", *i.e.,* investments in high interest rate currencies financed by positions in low interest rate currencies. The growth in outright forwards between 2001 and 2004 reflects heightened interest in hedging. Within the EM countries, traditional foreign exchange trading in Asian currencies generally recorded much faster growth than the global total between 2001 and 2004. Growth rates in turnover for Chinese renminbi, Indian rupee, Indonesian rupiah, Korean won and new Taiwanese dollar exceeded

100 per cent between April 2001 and April 2004. Despite significant growth in the foreign exchange market turnover, the share of most of the EMEs in total global turnover, however, continued to remain low.

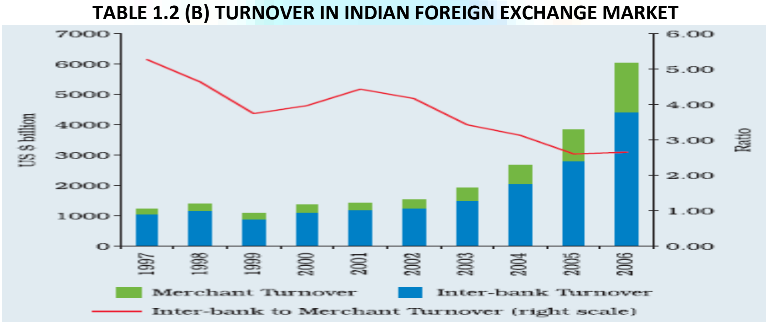
The Indian foreign exchange market has grown manifold over the last several years. The daily average turnover impressed a substantial pick up from about US $ 5 billion during 1997-98 to US $ 18 billion during 2005-06. The turnover has risen considerably to US $ 23 billion during 2006-07 (up to February 2007) with the daily turnover crossing US $ 35 billion on certain days during October and November 2006. The inter-bank to merchant turnover ratio has halved from 5.2 during 1997-98 to 2.6 during 2005-06, reflecting the growing participation in the merchant segment of the foreign exchange Mumbai alone accounts for almost 80 per cent of the foreign exchange turnover.

TABLE 1.2 (A) TRADITIONAL FOREIGN EXCHANGE MARKET TURNOVER IN EM CURRENCIES - APRIL 2004 (DAILY AVERAGES, IN MILLIONS OF US DOLLARS)

	Spot	Forward	Swap	Total	Growth since 2001 (%)
1	2	3	4	5	6
Chinese renminbi	992	811	9	1,812	530
Hong Kong dollar	6,827	2,221	24,133	33,181	21
Indian rupee	2,877	1,531	1,658	6,066	114
Indonesian rupiah	760	267	1,025	2,051	283
Korean won	10,510	6,048	4,592	21,151	117
Malaysian ringgit	351	237	399	987	7
Philippine peso	345	232	188	765	52
Singapore dollar	5,177	1,242	10,591	17,010	32
New Taiwan dollar	3,607	2,798	856	7,261	129
Thai baht	1,333	490	1,669	3,492	88
Memo:					
US dollar	528,639	170,357	874,083	1,573,080	48
Euro	272,887	88,243	298,231	659,361	49
Pound sterling	82,839	31,338	185,241	299,417	93
Japanese yen	130,382	47,135	181,715	359,231	35

Source : BIS Quarterly Review, March 2005.

TABLE 1.2 (B) TURNOVER IN INDIAN FOREIGN EXCHANGE MARKET



RUPEE-DOLLAR MARKET

The spread in the Indian foreign exchange market has declined overtime and is very low at present. In India, the normal spot market quote has a spread of 0.25 of paisa to1 paisa, while swap quotes are available at 1 to 2 paisa spread. A closer look at the bid-ask spread in the rupee-US dollar spot market reveals that during the initial phase of market development (*i.e.*, till the mid-1990s), the spread was high and volatile due to a thin market with unidirectional behavior of market participants. In the subsequent period, with relatively deep and liquid markets, the bid-ask spread declined sharply and has remained low and stable, reflecting efficiency gains.

It was empirically observed that expected volatility of the rupee-dollar exchange rates could impact the spread which increases with the increase in volatility. However, the trading volume has negligible impact on the exchange rate spread. The intercept of the estimated equation is highly significant showing the flatness of the spread in the Indian foreign exchange market. The flat and low spread can be attributed to lower volatility in the foreign exchange market.

An important aspect of functioning of the foreign exchange market relates to the behaviour of forward premia in terms of its linkages with economic fundamentals such as interest rates and its ability to predict future spot rates. An analysis of forward premia essentially reflects whether a currency is at a premium/discount with respect to other reserve currencies. Forward premia is particularly important for importers and exporters who need to hedge their risks to foreign currency. The forward market in India is active up to six months where two-way quotes are available. In recent years, however, the segment up to one year maturity has also gained liquidity. The link between the forward premia and interest rate differential seems to work largely through leads and lags. The integration between the domestic market and the overseas market is more often through the forward market. The integration has been facilitated by allowing ADs to borrow from their overseas offices or correspondents and invest funds in overseas money market. The forward segment is also influenced by a number of other factors: (i) importers and exporters availing or extending credit to overseas parties (importers can move between sight payment and 180 days usance depending on the global interest rate, domestic interest rate and expectations on future spot rate); (ii) importers switching between rupee credit and foreign currency credit; (iii) the decision to hedge or not to hedge the exposure, depending on expectations and forward premia; (iv) exporters delaying payments or advance receivables, subject to conditions on repatriation and surrender, depending upon the interest on rupee credit, the premia and interest rate overseas; and (v) availing of pre/post-shipment credit in foreign exchange and switching between rupee and foreign currency credit.

In the post-liberalization phase, the forward premia of the US dollar *vis-à-vis* Indian rupee has generally remained high indicating that rupee was at a discount to the US dollar. In recent times, however, reflecting the build-up of foreign exchange reserves, the strong capital flows and the confidence in the Indian economy, the forward premia has come down sharply from the peak reached in 1995-96. For a short period in 2003-04, the forward premia turned negative defying the traditional theory according to which the currency of a country with higher inflation rate/interest rate should be at a discount *vis-à-vis* other country's currency. This was the period when Indian rupee was gaining strength against the US dollar, which depreciated against most other currencies. The period since 2002 has, in fact, witnessed sharp co-movement of forward premia and exchange rate with the premia exhibiting a decline, whenever rupee appreciated.

Forward premia is also affected by movements in call rates, reflecting the principle of interest-rate parity. Tightening of liquidity in the domestic market immediately pushes up call rates, which in turn, pushes up forward premia. Whenever liquidity in the domestic market is tightened, banks and other market players sell the US dollar in cash or spot market and buy in the forward market pushing forward premia upward. Several studies have analyzed the behavior of forward premia and have attempted to explore the factors that determine it in the Indian foreign exchange market. Forward premia of Indian rupee is driven to a large extent by the interest rate differential in the interbank market of the two economies, FII flows, current account balance as well as changes in exchange rates of US dollar *vis-à-vis* Indian rupee (Sharma and Mitra, 2006). Another study has observed that the forward premia for the period 1997 to 2002 systemically exceeded rupee depreciation, implying that there has been an asymmetric advantage to sellers of dollar forwards (Ranade and Kapur, 2003).

One way of assessing market efficiency is to observe the forward rate behaviour as to whether forward rates are unbiased predictor of future spot rates. For the period April 1993 to January 1998, it was found that forward rates cannot effectively predict the future spot rates and there is no co-integration between forward rates and future spot rates (Joshi and Sagar, 1998). An analysis using the data for the more recent period during January 1995 to December 2006 reveals that the ability of forward rates in correctly predicting the future spot rates has improved over time and that there is some co-integrating relationship between the forward rate and the future spot rate . This could be attributed to the gradual opening up of the Indian economy, particularly in the capital account, together with other reform initiatives undertaken to develop the forward market such as introduction of new instruments, trading platforms and more players.

TABLE 2 (A) MOVEMENT OF FORWARD PREMIA AND RUPEE-DOLLAR EXCHANGE RATE

LONG MEMORY MODELLING

INTRODUCTION

Macroeconomic and financial time series like nominal and real interest rates, real exchange rates, exchange rate forward premiums, interest rate differentials and volatility measures are very persistent, i.e., that an unexpected shock to the underlying variable has long lasting effects. Persistence can occur in the first or higher order moments of a time series. The persistence in the first moment, or levels, of a time series can be confirmed by applying either unit root tests to the levels, while the persistence in the volatility of the time series is usually exemplified by a highly persistent fitted GARCH model. Although traditional stationary ARMA processes often cannot capture the high degree of persistence in financial time series, the class of non-stationary unit root or I(1) processes have some unappealing properties for financial economists. In the last few years, more applications have evolved using long memory processes, which lie halfway between traditional stationary I(0) processes and the non-stationary I(1) processes. There is substantial evidence that long memory processes can provide a good description of many highly persistent financial time series.

Much of the analysis in financial economics is based on the assumption of efficient market hypothesis (EMH), which in its weak form implies that returns of financial time series (e.g., equity prices, interest rates, exchange rates) are white noise processes consisting of independent, identically distributed random variables. These characteristics imply that the time series at the level follow random walks. A time series that follows a random walk process has two important properties. First, the series has long memory in the sense that the effects of distant shocks are strongly felt at the present. Second, the first difference of the series is a white noise, short memory process Engle and Garner (1991). A random walk model, however, is incapable of explaining a precipitous drop in many financial time series. For example, a major price change in the stock prices such as the fall of the New York markets in October 1987 can not be explained by a random walk process. For a Gaussian process, the autocorrelation function or the spectral density describes the memory properties of the series Lo (1991). If a series exhibits long memory, there is persistent temporal dependence between distant observations. Such series are characterized by distinct but non-periodic cyclical patterns. In the time domain, this is characterized by autocorrelation function that decays hyperbolically. In the frequency domain, this is characterized by high power at low frequencies, especially near the origin. A broader definition of the long memory processes requires that the autocovariances are not hummable or that the spectral density is unbounded.

In the globally integrated economies of today, the behaviors of foreign exchange rates are of great importance to international investors as the volatility of the exchange rates is an important determinant of the degree of risks associated with the investment opportunities. Moreover, the exchange rates play a prominent role in international trade.

In a long memory process, the effects of shocks tend to persist. For example, establishing that shocks to an exchange rate persist, may give the Central Bank's authorities additional incentives to intervene in the currency markets. These interventions would aim at steering the nominal exchange rate toward its long-run equilibrium path, for the cost of inaction on the part of the monetary authorities is further divergence of the nominal exchange rate from its long-run equilibrium value. Alternatively, if the monetary authorities believe that the prevailing nominal exchange rate is in the proximity of its long-run equilibrium, and that lack of intervention in the currency markets would cause divergence of nominal rate from its equilibrium rate, with possible dire consequences, then regular and frequent interventions in the currency markets would be justifiable.

For another example, consider gross domestic product (GDP). Persistence of shocks in the GDP series would require corrective monetary and fiscal policies to force the nominal GDP towards its long-run equilibrium path (see Robinson (1997) for a detailed discussion of testing for persistence of shocks and unit root in macroeconomic time series). In cases where shocks do not persist, policy activism is not required, since the series will automatically and eventually move towards its long-run equilibrium path.

Notwithstanding the di±culties associated with inference based on statistics estimated using a long-memory time series, slowly decaying correlations allow for more accurate predictions of the series. This is due to stronger dependency among the observations in a series (Beran (1994) chapter 4).

LITERATURE REVIEW

A number of empirical studies (e.g. Booth, Kaen and Koveos, 1982; Cheung, 1993; Batten and Ellis 1996) employ the rescaled range statistical procedure, originally developed by Hurst (1951), to identify long-term return anomalies in currency markets. However, Fama (1998) argues that this type of anomaly may be sensitive to the method employed and will tend to disappear when alternative approaches are used. That is, they are "methodological illusions". Given the scale of the spot Re/USD trading and the high level of information efficiency in foreign exchange markets one may be predisposed to favour the Fama (1998) view. One approach to the problem is to apply similar statistical methods but determine whether the return anomaly persists over different sample periods, or is specific to one or more sub periods.

Many authors have tested for long memory in asset returns, including both stocks and exchange rate returns. Lo (1991) proposed robustifying the rescaled range statistics of Hurst (1951) against short run dependence and tested for US stock indices. Jacobsen (1996) tested for long memory in US, Japanese and some West European stock index returns. Cheung (1993a) tested for long memory in exchange rate returns, while Hiemstra and Jones (1997) considered long memory in US individual stock returns. Crato (1994) and Cheung and Lai (1995) both tested for long memory in stock return indices for a number of developed markets. Greene and Fielitz and Aydogan and Booth (1988) both tested for long memory using rescaled range statistics. Barkoulas and Baum (1997) tested long memory of stock

returns and European Deposit Rates. Booth, Kaen, Koveos (1982), Cheung (1993a) Cheung and Lai (1993) Bhar (1994), Feng, Lai and Lai (1994) Barkoulas, Libys and Onochie (1997a) tested long memory for spot and futures currency rates. Other authors have also tested long memory for gold prices, international spot commodity prices and commodity and stock index futures. Wei and Leuthold (2000) tested existence of long memory in agricultural futures prices.
Lo (1991) developed a modified R/S method, which addresses some of the drawbacks of the classical R/S method. Using the variant of R/S analysis, Lo finds no evidence to support the presence of long memory in U.S. stock returns. Applying Lo test, which does not rely on standard regression techniques and is robust to short-term dependence, provides statistical support for the hypothesis that stock market returns follow a random walk (Ambrose, 1993). Using both the modified R/S method and the spectral regression method, Cheung and Lai (1995) find no evidence of persistence in several international stock returns series. Crato (1994) reports similar evidence for the stock returns series of the G-7 countries using exact maximum likelihood estimation.
Fung and Lo's (1993) long memory study analyzed the prices of two interest rate futures markets, Eurodollars and T-bills. The result from the classical R/S analysis and Lo's (1991) modified R/S analysis provide no evidence of the existence of long memory and support for the weak form efficient market hypothesis. Fung et al (1994) examined long memory in stock index futures by using variance ratio, R/S and auroregressive fractally integrated moving average models. All three types of analyses concluded that no long memory exists in the data. Similar tests have been pursued by many academicians but the results are mixed, but all authors agreed the identification of long memory is very important and significant in two senses: (a) the time span and strength of long memory will be an important input for investment decisions regarding investment horizons and composition of portfolios; and (b) prediction of price movements will be improved. It is also noticeable that research methodologies have developed very fast. In the 1980's the classical R/S analysis was the major tool but in 1990's the methods are being diversified with the modified R/S analysis and the AFIMA model as new techniques.

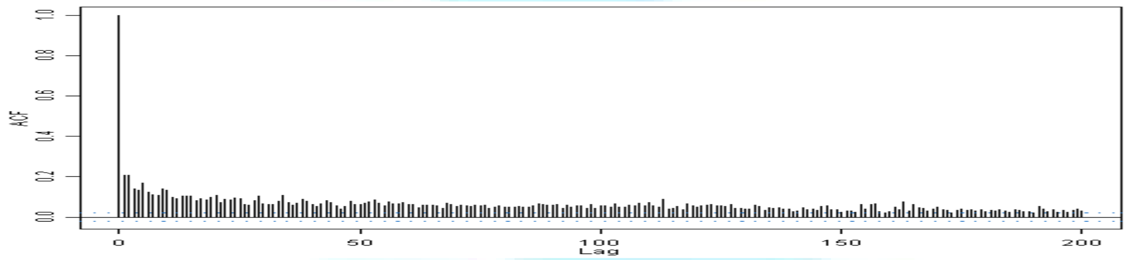
METODOLOGIES AND MODELLING

PROPERTIES OF LONG MEMORY TIME SERIES

1. For large lags, the sample autocorrelation decays much more slowly than the theoretical autocorrelation. Traditional stationary ARMA processes have short memory in the sense that the autocorrelation function decays exponentially.
2. When the sample autocorrelation decays very slowly, traditional stationary ARMA processes usually result in an excessive number of parameters.

Example: - Consider Time Series under consideration i.e. Log Returns of Rupee-Dollar exchange rate from 02-01-1973 to 30-01-2009

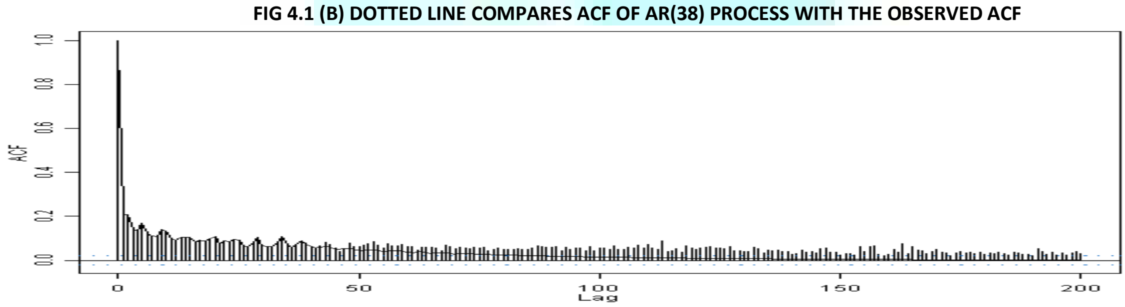
FIG 4.1 (A) ACF OF CONTINUOUS LOG RETURNS OF RS-USD RATE OVER 37 YEARS



From fig 4.1 (a) it is concluded that:-

- The autocorrelation of absolute returns is highly persistent and remains very significant at lag 200.
- Moreover simulation proves the best fitting AR process using AIC, which turns out to be an AR (38) model.

FIG 4.1 (B) DOTTED LINE COMPARES ACF OF AR(38) PROCESS WITH THE OBSERVED ACF



In the above example, the theoretical autocorrelation closely matches the sample autocorrelation at small lags. However, for large lags, the sample autocorrelation decays much more slowly than the theoretical autocorrelation.
When the sample autocorrelation decays very slowly, traditional stationary ARMA processes usually result in an excessive number of parameters. In the above example, 38 autoregressive coefficients were found necessary to capture the dependence in the data.
Based on the above observations, a stationary process Y(t) has long memory, or long range dependence, if its autocorrelation function behaves like:-

$\rho(n) = C_\rho n^{-\alpha}$ as $n \to \infty$ .... (1)

Where, C_ρ is a positive constant and α is a real number between 0 and 1
The autocorrelation function of a long memory process decays slowly at a hyperbolic rate. it decays so slowly that the autocorrelations are not summable

i.e. $\sum_{n=1}^{\infty} \rho(n) = \infty$ ---------------- (2)

Granger and Joyeux (1980) and Hosking (1981) independently showed that a long memory process Y(t) can also be modeled parametrically by extending an integrated process to a fractionally integrated process. In particular, allow for fractional integration in a time series Y(t) as follows:-

$(1 - L)^d (Y(t) - \mu) = u(t)$ ----------- (3)

Where, where L denotes the lag operator, d is the fractional integration or fractional difference parameter, μ is the expectation of Y(t), and U(t) is a stationary short memory disturbance with zero mean.
In practice, when a time series is highly persistent or appears to be non-stationary, let d = 1 and difference the time series once to achieve stationarity. However, for some highly persistent economic and financial time series, it appears that an integer difference may be too much. To allow for long memory and avoid taking an integer difference of Y(t), allow d to be fractional. The fractional difference filter is defined as follows, for any real d < -1

$$(1-L)^d = \sum_{n=0}^{\infty} \binom{d}{n} (-1)^n L^n$$ ------------------- (4)

When a fractionally integrated series Y(t) has long memory, it can also be shown that

d = H - ½ -------- (5)

Where H is Hurst coefficient (Hurst, 1951)

DATA

In all the sections and analysis discussed below continuous log returns of INR-USD exchange rate from 02-01-1973 to 30-11-2009 are used. Given period gives a total of 9241 observations and data are taken from federal reserved website. KPSS stationarity test confirms that selected data is stationary and fit for autoregressive modeling as test statistics value is 0.3846 which is less that the 99% quantile, 0.762 (from standard test table).

STASTICAL TESTS FOR LONG MEMORY

Given the scaling property of the autocorrelation function, the frequency domain property and the fractionally integrated process representation of a long memory time series, various tests have been proposed to determine the existence of long memory in a time series. For a long memory process, it is not necessary for the autocorrelation to remain significant at large lags as in the previous Rs-USD example as long as the autocorrelation function decays slowly. Beran (1994) gave an example to illustrate this property.

a) R/S Statistic Test: - The best-known test for long memory or long range dependence is probably the rescaled range, or range over standard deviation, or simply R/S statistic, which was originally proposed by Hurst (1951), and later refined by Mandelbrot and his coauthors. The R/S statistic is the range of partial sums of deviations of a time series from its mean, rescaled by its standard deviation.

Testing for long memory in INR-USD exchange rates continuous returns using R/S statistics:-

Test for Long Memory: R/S Test

Null Hypothesis: no long-term dependence

Test Statistics:

VALUE

6.8478**

****: significant at 5% level***

*****: significant at 1% level***

Total Observ: 9241

b) GPH Test: - Based on the fractionally integrated process representation of a long memory time series, Geweke and Porter-Hudak (1983) proposed a semi-nonparametric approach to testing for long memory.

Outcome of GPH Test on INR-USD observations:-

Test for Long Memory: GPH Test

Null Hypothesis: d = 0

Test Statistics:

VALUE

d 0.4301

stat 6.0547**

****: significant at 5% level***

*****: significant at 1% level***

Total Observ: 9241

Number of Freq: 96

The estimated value of d from (4) is 0.4301, which suggests long memory, and the gph test statistic is 6.0547. Hence, the null of no long memory is rejected at the 1% significance level.

LONG MEMORY PARAMETER ESTIMATION

Whittle's Method: - Whittle's method for estimating d is based on a frequency domain maximum likelihood estimation of a fractionally integrated process. It can be shown that the unknown parameters can be estimated by minimizing a discretized version of

$$Q(\theta) = \int_{-\pi}^{\pi} \frac{I(\omega)}{f(\theta,\omega)} d(\omega)$$ **………… (6)**

Where θ is the vector of unknown parameters including the fractional difference parameter d, $I(\omega)$ is the periodogram of y(t), and $f(\theta,\omega)$ is the theoretical spectral density of y(t). Beran in (1994) derived Whittle's method. It is implemented assuming that u(t) is a standard normal disturbance and thus y(t) follows a FARIMA(0,d,0) process.

For last 37 years continuous returns of INR-USD exchange rates d comes out to be

d = 0.1787747

ESTIMATION OF *FARIMA* MODELS

This section introduces the more flexible fractional ARIMA models, which are capable of modeling both the long memory and short run dynamics in a stationary time series. Many empirical studies have found that there is strong evidence for long memory in financial volatility series, for example, see Lobato and Savin (1998) and Ray and Tsay (2000). Indeed, Andersen, Bollerslev, Diebold and Labys (1999) suggested using FARIMA models to forecast daily volatility based on logarithmic realized volatility.

The traditional approach to modeling an I(0) time series Y(t) is to use the ARIMA model:

$$\Phi(L)(1-L)^d (Y(t)-\mu) = \theta(L)e_t$$ -------- (7)

Where Φ(L) and $\theta(L)$ are lag polynomials

$$\Phi(L) = 1 - \sum_{i=1}^{p} \Phi_i L^i$$ --------- (8)

$$\theta(L) = 1 - \sum_{i=1}^{p} \theta_i L^i$$ --------- (9)

With roots outside the unit circle, and e_t is assumed to be an normal random variable with zero mean and variance ρ^2. This is usually referred to as the ARIMA (p,d,q) model. By allowing d to be a real number instead of a positive integer, the ARIMA model becomes the autoregressive fractionally integrated moving average (ARFIMA) model, or simply, fractional ARIMA (FARIMA) model.

For a stationary FARIMA model with -1/2 < d < 1/2, Sowell (1992) described how to compute the exact maximum likelihood estimate (MLE).

However, for many economic and financial time series, the data usually seem to lie on the borderline separating stationarity from non-stationarity. As a result, one usually needs to decide whether or not to difference the original time series before estimating a stationary FARIMA model, and the inference of unknown

FARIMA model parameters ignores this aspect of uncertainty in d. Beran (1995) extended the estimation of FARIMA models for any d> -1/2 by considering the following variation the FARIMA model:

$$\Phi(L)\,(1-L)^a[(1-L)^b Y(t)-\mu = \theta(L)e_t \text{ --------- (10)}$$

Where -1/2 < a < ½ and integer b is number of times Y(t) is differenced to achieve stationarity thus d = a + b. the standard errors of unknown parameters are computed using the asymptotic distribution derived by Beran (1995), which takes into account that b is also determined by data rather than by a prior decision.

MODEL IMPLEMNTATION AND OBSERVATIONS

1. FARIMA (0, d, 0)

TABLE 5.1: FARIMA (0,D,0) IMPLEMENTATION STATISTICS

Model	Value	Std. Error	t-value	Pr(>|t|)	log-likelihood	BIC	Residual scale estimate
FARIMA(0,d,0)	d = -0.0509	0.0082	-6.2408	0.0000	36130.92	-72252.71	0.0048

	Total	residual
Degree of freedom:	9240	9238

d < 0 suggests that above model doesn't appear stationary for the data under consideration i.e. INR-USD 37 years exchange rate returns.

To allow for long memory and short memory at the same time, use FARIMA (p,d,q) model with p ≠ 0 or q ≠ 0. However, in practice, it is usually difficult to choose the appropriate value for p or q. Best fit model has been chosen based on minimizing minimize the Bayesian Information Criterion (BIC)

2. FARIMA (p,d,q) where p,q= [0,2]

TABLE 5.2: BIC VALUES OF ALL MODELS ESTIMATED

	q=0	q=1	q=2
p=0	-72235.45	-72291.24	-72296.42
p=1	-72309.63	-72306.49	-72296.80
p=2	-72314.67	-72305.56	-72300.81

For p = 2 and q = 0 BIC value is least hence FARIMA (2, d, 0) fits the data best

Table (5.3) FARIMA (2, .004, 0) implementation statistics

	Value	Std. Error	t value	Pr(>|t|)
d	0.0040	0.0167	0.2410	0.8096
AR(1)	-0.1129	0.0198	-5.7011	0.0000
AR(2)	0.0344	0.0142	2.4188	0.0156

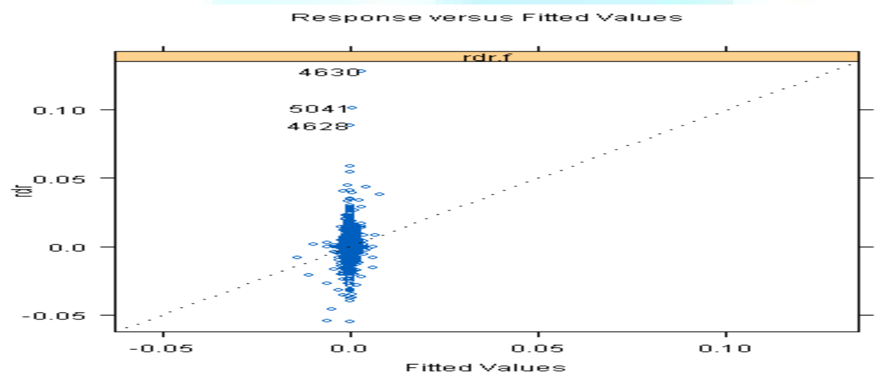
Log-likelihood: 36171.03

BIC: -72314.67

Residual scale estimate: 0.0048

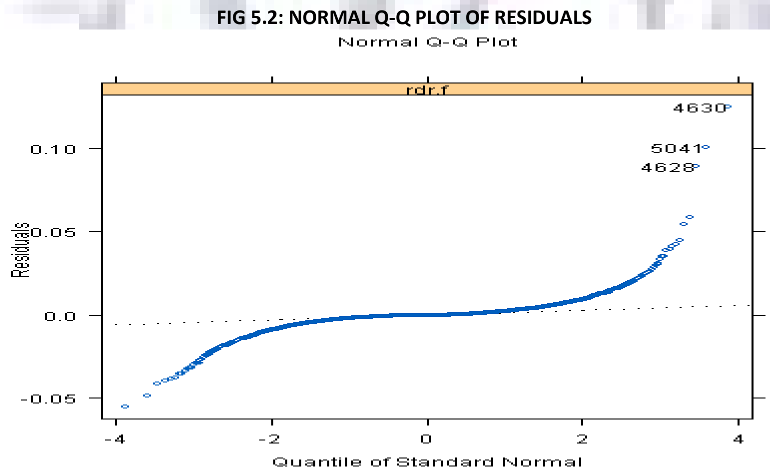
	Total	residual
Degree of freedom:	9238	9234

FIG 5.1: PLOT OF RESPONSE VS. FITTED VALUES

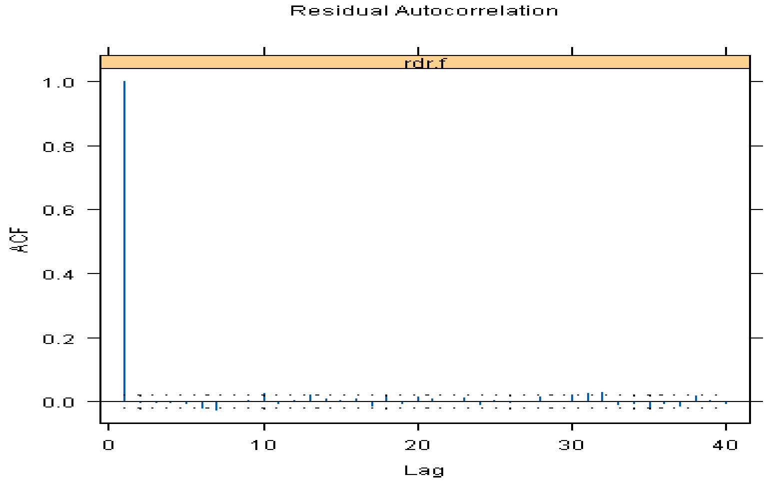


Rdr: - Rupee Dollar returns

FIG 5.2: NORMAL Q-Q PLOT OF RESIDUALS



FIG(5.3) ACF OF RESIDUALS



As from the above figures it can interpreted that FARIMA(2,0.004,0) models have explained long memory behavior of the INR-USD continuous returns

CONCLUSIONS

Various studies are done on analysis of financial time series using ARMA/GARCH process in context of Indian exchange markets but exchange rate returns are highly persistent , i.e., that an unexpected shock to the underlying variable has long lasting effects. In the last few years, more applications have evolved using long memory processes, which lie halfway between traditional stationary I(0) processes and the non-stationary I(1) processes. In the case of continuous log returns of INR-USD exchange rate for last 37 years R\S test statistics confirms the presence of long memory effect and fractionally integrated process explains variations more effectively. Whittle's Method rightly estimates fractional differencing parameter. While for INR-USD returns FARIMA (0,d,0) doesn't appear stationary , hence short memory component is also induced to allow for long memory and short memory at the same time. FARIMA (p,d,q) model with $p \neq 0$ or $q \neq 0$ are analyzed BIC criterion shows for p=2, d = 0.004 and q = 0 model appears most stationary.

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THE US ECONOMY IN THE POST CRISIS SCENARIO – HOLDING LITTLE CAUSE FOR CHEER

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ABSTRACT

The impact of the global economic crisis which had engulfed the entire world and left a trail of losses, albeit of different magnitudes in global economies has not completely abated. Global economic growth has not yet reached the pre-crisis levels. The emerging markets have weathered the impact of the crisis in a strong manner compared to the developed economies. Though the World Bank and the IMF have estimated better growth rates for 2011-12 the persistent crisis in the Euro zone the inconsistencies in the policy response and the lack of a long term action plan to revive the US economy place significant hurdles in improving growth rates. The legal framework and a weak regulatory system were the basic causes for vested interests to earn massive amounts of illegal profits at the cost of the economy, there has not been any significant action to strengthen the regulatory system in the US to ensure non repetition of the crisis. To further worsen the already bleak scenario, commodity prices, oil prices have risen to all time highs and prices of basic food items have increased manifold and are expected to remain high due to poor output. This paper discusses the impact of the financial crisis on the global and US economy, impact of the stimulus packages and the quantitative easing on the US economy, current scenario with special emphasis on employment, poverty the financial system, deficits, inflationary trends, the government response and the unfolding economic scenario.

KEYWORDS

Global Crisis, Stimulus Package, Emerging Global Scenario, The Us Economy – Emerging Trends.

INTRODUCTION

The impact of the global economic crisis which had engulfed the entire world and left a trail of losses, albeit of different magnitudes in global economies has not completely abated. Global economic growth which has recovered in the previous year (2009-10) has not yet reached the pre-crisis levels. The emerging markets have weathered the impact of the crisis in a strong manner when compared to the developed economies which are yet to recover in a significant manner. Though the World Bank and the IMF have estimated better growth rates for 2011-12, the persistent crisis in the Euro zone, the inconsistencies in the policy response and the lack of a long term action plan to revive the US economy place significant hurdles in improving growth rates. Inspite of the clear realization that dilution of the legal framework and a weak regulatory system were the basic causes for vested interests to earn massive amounts of illegal profits at the cost of the economy, there has not any significant action to strengthen the regulatory system to ensure that there is no repeat of the crisis. Many of the banks which had been bailed out by the government have continued to pay sky high bonuses to the top management despite their financial position being fragile and without any significant improvement in their operational parameters.

There has not been any marked revival in employment because of the continuing weakness in both consumer and investment demand and the millions of jobs lost during the height of the crisis have left a vast section of the population in an impoverished state. To further worsen the already bleak scenario, commodity prices have risen to all time highs and prices of basic food items consumed by the general public have increased manifold and are expected to remain high due to poor output. Another significant cause for concern is the rise in oil prices which have already touched $80 per barrel. Experts in the industry estimate that oil prices would cross $100 and possibly rise to $120. Such increases would further reduce the already weak global growth trends. The number of poor and malnourished people the world over has swelled and due to the declining assistance to the vast multitudes in the African nations, who were in an extremely deprived state even before the onset of the crisis, many global agencies have predicted deaths due to disease and starvation to rise exponentially. This paper discusses the impact of the financial crisis on the global and US economy, impact of the stimulus packages and the quantitative easing on the US economy, current scenario with special emphasis on employment, poverty the financial system, deficits, inflationary trends, the government response and the unfolding economic scenario.

RESEARCH METHODOLOGY

The paper is conceptual in nature and has adopted the analytical approach to study the global scenario in the aftermath of the crisis. A literature review has been conducted to understand the viewpoints of experts. The period of study is 20006-07 to 2011-12.

NEED FOR THE STUDY

There have been sharply divergent views regarding the global economic trends and growth patterns in the post crisis period as well as the effectiveness of policy responses of the US government to revive the economy. The quantitative easing (QE2) announced by the US Federal Reserve and the various tax concessions granted extended by the Obama government to kick start economic growth have revived optimism about the future performance of the economy. Globally renowned agencies have pointed out significant decline in social indicators while stock market experts predict that the US stock markets would perform well in 2011-12. Amidst the mixed opinions and signals it becomes imperative to take stock of the emerging trends.

LITERATURE REVIEW

Balaji CD (2009) stated that the sub-prime mortgage crisis happened because the financial institutions in the US sacrificed morals and prudence at the altar of greed. Weak regulation, market fundamentalism and innovation with wrong intentions were the main reasons for the financial inferno. Dan Ariely (2009) felt that the world is paying a terrible price for the unblinking faith in the power of the invisible hand and is painfully blinking awake to the falsity of standard economic theory—that human beings are capable of always making rational decisions and that markets and institutions, in the aggregate, are healthily self-regulating. Narayanan VG, Fabrizio Ferri, Lisa Brem (2009), examined the cause of the crisis from a national and global perspective and explored the actions taken by the US and European governments, Pankaj Ghemavat (2009) opined that the world looks far different today than it did before the global financial crisis struck. Reeling from the most brutal impacts of the recession, governments, economies, and societies everywhere are retrenching and pushing hard for increased protectionism. Left unchecked, heightened protectionism could prevent peoples around the world from achieving the true gains afforded by cross-border openness. Yiorgos Allayannis (2009), stated that the fundamental issue surrounding this crisis was the misjudgment of the risks taken, with the result that risk management failed to do its job of curtailing and managing risk as expected, Danielle Caddieux, David W. Conklin (2010), stated that by the fall of 2009, the crisis had stabilized, and the appearance of "green shoots" gave promise of recovery. By 2010, it was possible to put the financial crisis in perspective, and to raise questions about the causes and consequences. Of particular concern was whether new regulations might be needed to prevent a recurrence, and whether some of the tighter regulations should be international in scope, Raghuram Rajan (2010) stated that trade and investment policies, considerations of domestic sovereignty and the role of international agencies are all involved in global capitalism. If the 'global crisis' is to be resolved, every one of them has to be addressed and it is not going to be easy, Eric Janszen (2010), stated that the one economic indicator that seems to point toward long-term hope for businesses is the increase in the U.S. household savings rate—the portion of income that wage earners aren't spending. Savings were close to nil until the economic collapse but have been rising ever since stands at about 4.8%.

CONTOURS OF THE CRISIS

The origin of the global economic crisis can be traced to the consistent weakening of the legal and regulatory framework of the US financial system by successive governments. The systemic loopholes on the one hand enabled collusion among commercial and investment banks, insurance companies, mortgage lenders and brokers and on the other hand, created financial instruments of a dubious nature whose value was not known clearly to neither the seller nor the holder of the instrument. This created the FIRE economy i.e., Finance, Insurance and Real Estate economy which was characterized by easy availability of finance, insurance and soaring real estate prices which led to unsound lending practices by financial institutions, aggressive selling by the mortgage brokers, slicing and dicing of loans by the investment bankers and undue speculation which led to the piling up of household debt. When the housing bubble burst, real estate prices crashed, defaults increased bringing down major banks and insurance companies starting from Lehman Brothers.

IMPACT OF THE CRISIS: The IMF paper on the human costs of recession have put forth the fact that due to the economic slowdown, unemployment has increased by more than 30 million since 2007, and the global figure now is 230 million. The recession would result in lower lifetime earnings leading to poor access to education and healthcare. Moreover in most of the developed economies, growth plummeted; unemployment of the youth and long term unemployment have increased in an alarming manner. Another cause for serious concern is the decline in permanent employment and employees forced to take up temporary jobs to ensure their survival. As a result of the crisis, more than $6.3 trillion in financial assets and over $5 trillion in real estate value vanished in the 24 months between late 2007 and late 2009. The net worth of households declined a staggering $11 trillion over 2008 and 2009.

THE US STIMULUS PACKAGE AND QUANTITATIVE EASING

The stimulus package implemented by the US government was quite small when compared to the magnitude of the crisis. Further, the package was not aimed at job generating recovery of the US economy but instead relied on tax cuts to spur consumer demand, which has not materialized as visualized. The situation that is being witnessed today in the US can be termed as 'de-leveraging'. The US public had ran up huge amounts of debt due to the irrational lending policies of the banks and household debt which was 83 per cent of household income in the 1990's shot up to 130 per cent in 2007. Now the households are paying back the debt that they had accumulated in the past and as a result the household debt has fallen to 118 per cent of household income. The result is there have been cutbacks in spending resulting in low consumer demand (China has overtaken the US as the largest market for passenger vehicles in 2009). The tax breaks would not spur demand due to the fact that the rich and the middle class are less likely to increase spending and the tax breaks to the industry would not result in increased investment because there is already excess capacity.

The recent package announced by the Obama Administration to revive the economy will pump in $850 billion of stimulus to the US economy. The concessions granted include:

(i) The new payroll tax cut for the employed (social security tax levied would be reduced from 6.2% to 4.2%)
(ii) Extended benefits for the unemployed,
(iii) Estate tax cut (rates to be maintained at 35% from the earlier proposal of 55%) for the rich,
(iv)Extension of the Bush era tax cuts for two years
(v) Business tax breaks including credit for research and development expenditure
(vi)Protection for middle class families from the alternative minimum tax

There has been growing criticism over the recent Federal Reserve's move to buy bonds aggregating $600 billion in a phased manner at $75 billion dollars every month. There is growing skepticism over whether the program would boost the economy and many of the critics have opined that it would only increase inflation and commodity prices. The bond buying program whose objective was to lower yields on government securities has achieved just the opposite with the yields on US Treasury bonds rising from the date the government made the announcement (November 3).

EMERGING GLOBAL SCENARIO

Global growth which showed signs of picking up in the third and fourth quarters of 2009, slumped in the first two quarters of the year 2010, prompting the OECD to mention in its interim assessment of the global economy issued in September 2010 to state, "The world economic recovery may be slowing faster than previously anticipated". It is the consumption expenditure and government expenditure which keeps the growth engine of the economy moving, but in the aftermath of the criris, private consumption expenditure which slumped in 2009 has not recovered and public expenditure which increased due to the fiscal stimulus packages in 2009 has fell sharply in 2010. IMF has projected that the slowdown could extend to the second half of 2011. With the governments in developed economies having exhausted their resources in stimulus packages and in some cases borrowed excessively to support such packages, the continuing slow down is bound to have an adverse impact on the already weak employment markets.

In general, gross domestic product (GDP) is growing faster in emerging economies and developing countries. Economic indicators suggest that the economic scenario of the developed countries continues to remain uncertain. Though the developed world was expected to grow slower when compared to the developing countries, questions are now raised whether even the slow growth rates would materialize. The GDP of the OECD countries increased by 0.7 per cent on a sequential basis in the first and the second quarter of 2010. The UK economy grew by 1.1 per cent; Germany tops the growth charts at 2.2 per cent while the Japanese and US economy slowed down to 0.1 per cent and 0.6 per cent respectively. GDP for the United Arab Emirates as a whole fell by 2.9 per cent in 2009-10 and is expected to rise by 2 per cent in 2010-11. Policy makers are confounded with the dilemma of whether to withdraw the stimulus measures or to announce a fresh set of measures. Withdrawing the stimulus might push the economies in the throes of a double dip recession while continuing stimulus measures might result in piling up of debt, which might be harmful in the long run. The FAO Food Price Index averaged 205 points in November 2010, up 7 points from October and only 7 points below its peak in June 2008. However, a total of 925 million people are still estimated to be undernourished in 2010, representing almost 16 percent of the population of developing countries.

THE US ECONOMY – EMERGING TRENDS

The US which is the number one economy in the world in terms of GDP and per capita income has been severely affected by the crisis. GDP growth rates have declined, unemployment is at 26 year highs, consumer demand has slumped, industry is left with huge surplus capacity, poverty rates have increased, the number of people without insurance has grown manifold, exports from the country have been badly affected, government revenues are down, debt and deficits have soared to record levels and recovery seems to be a mirage. The following is an analysis of the trends in the US economy:

GDP: After a decline of 2.2 per cent in GDP in 2009, the US is expected to grow at 3.3 per cent this year. The US whose share of global GDP grew from 26.3 per cent in 1990 to 29.8 per cent in 1999 has declined to 24.3 per cent in 2009 while the shares of Indian and China have increased. The GDP of US was around $14 trillion in 2009 and experts point out that China which has already overtaken Japan to become the second largest economy in terms of GDP will unseat the US by 2030 to become the world's largest economy. The per capita income of the US at $46,000 in 2009 was the highest among the large economies. The worrying fact is that income disparities are further widening in the US economy. In 1976, the top one per cent of households had a share of 8.6 per cent of income and in 2007 their share of income had shot up to 23.5 per cent and in 2008, seven out of ten Americans found their incomes stagnating. Paul Krugman wrote in a New York Times op-ed (February 27, 2006) that in the last 30 years the redistribution of wealth through tax cuts has provided average working families with at most a 1 percent increase in income, while those in the 99.99th percentile gained approximately a 497 percent increase in income. Leiserson and Rohaly of the Tax Policy Center estimate that in 2006 family incomes in the 99th percentile were approximately $402,000 and those in the 99.9th percentile were approximately $1,672,726. At the same time, the Children's Defense Fund report "America's Cradle to Prison Pipeline" documented that child poverty could be eliminated in the U.S. for $55 billion a year, meaning that ending some of the tax cuts for the wealthiest 1 percent of taxpayers could end child poverty. The median household income in the US dropped from $51,726 in 2008 to $50,221 in 2009. The US GDP fell just one per cent in the second quarter of 2009 compared to a fall of 6.4 per cent in the first three months. The GDP growth is expected to turn positive with a growth of 2 percent in 2010, and rise to 3.8 per cent after a year. The economy is gradually showing signs of stability but unemployment continues to be a major issue though the rate at which jobs were being slashed has come down. On a positive note, banks have started seeing second-quarter profits.

TAX REVENUES: Tax collections of the US government declined due to the slow down as well as various tax concessions. During FY 2009, the US government collected about $400 billion less than FY 2008. Individual income taxes fell by 20 per cent, while corporate taxes declined 50 per cent. At 15 per cent of GDP, the 2009 collections were the lowest level of the past 50 years.

FISCAL DEFICIT AND DEBT: The White House has forecast a whopping $9.05 trillion deficit for the 2010-2019 periods, up by $2 trillion from the February estimate. The rising fiscal deficit could hit further reforms and economic growth. The Office of Management and Budget forecasts a weaker economic recovery as the gross domestic product falls by 2.8 per cent this year. US President Barack Obama pumped in a $787-billion stimulus to revive the economy; a total collapse was thus avoided. Today, each citizen's share of this debt is $44,393.

EMPLOYMENT: Job losses during the recession were much worse relative to output declines when compared to the previous economic slumps and as at the end of December 2010, official payroll data has not shown any big increase in hiring. While some big companies are expanding, other are merely replacing vacancies due to resignation or retirement.

According to the Associated Press, the US has lost 7.5 million jobs in the last 35 months since December 2007. In other words, on an average 7,000 jobs have been lost every day. There were 14.8 million people who were unemployed as on October 2010.If the persons who are currently working in part time jobs but desire full time employment and those who have given up their quest for employment due to the bleak scenario are taken into account, nearly 27 million people or 17 per cent of the labour force is underemployed. The United States Bureau of Labour Statistics point out that, about 46 per cent of those were jobless for 27 weeks or longer and 31 per cent were unemployed for 52 weeks or more.

From January 2009 when the Obama government assumed power to till date, government employment has fallen by over 3 lakh jobs and since January 2008, the private sector has lost more than 8 million jobs. The US unemployment rate went up to 9.8 per cent in November 2010 up from 9.6 per cent in the preceding three months. The number of job losers and persons who completed temporary jobs rose by 3, 90,000 to 9.5 million. The number of people who were looking for permanent jobs remained more or less unchanged at 9 million. The number of those who were not in the labour force but wanted and were available for work and had looked for a job sometime in the prior 12 months rose by 2.3 million from the earlier year figure. Nonfarm employment has barely changed adding a very small number of jobs. Even the small job creation was in temporary help services indicating a shortfall in permanent job creation. Job openings have decreased in many sectors, the number of workers forced into part time employment has increased and only three States have unemployment rates of less than 5 per cent and even highly skilled workers are desperate for employment.

Government data however shows an increasing trend in job openings. There were 3.2 million private sector job openings at the end of October 2010, up from 2.3 million a year earlier, though the number is below the 3.7 billion in October 2007 before the recession according to the US Bureau of Labour Statistics. Private sector job openings are showing a slow revival particularly in accounting, retailing, consulting, healthcare, telecommunications and defense related industries. According to data collected for the Wall Street Journal by Indeed Inc., which runs one of the largest employment websites, the number of US job postings in the internet rose to 4.7 million in December 2010 up from 2.7 million, a year earlier and 3.3 million in December 2008. The fact however remains that all vacancies are not posted online and skilled jobs are over represented while unskilled and semi skilled jobs in agriculture and manufacturing are underrepresented in online positings.

New claims for unemployment benefits declined by just 3,000 to 4,20,000 in the third week of December 2010 indicating a marginal slowing down of job losses. Economic experts estimate that job growth would be moderate in 2011 and the unemployment rate would be at 9 per cent.

HOUSING MARKET: For the period starting from World War II until 2008, Americans households had 60 to 80 per cent equity in their homes while mortgages accounted for the balance. After the bursting of the housing bubble in 2008, banks own more than 60 per cent of the average American home. The decline of the housing market appears to be never-ending since millions of people do not have jobs; millions of others work only part time; millions more work fulltime but make very little money; and additional millions fear losing their jobs. In July 2010 alone, 300,000 owners lost their residences because they didn't make their mortgage payments. Morgan Stanley had warned earlier this year that it would take four years for the US housing crisis to be over. According to the report, 10 per cent of loans are delinquent. Meanwhile, new figures showed home foreclosures in August hit the highest level since the mortgage crisis began. Banks repossessed 95,364 properties in August, up by 3 percent from July and an increase of 25 percent from August 2009.

FISCAL, MONETARY POLICY AND INFLATION: To counter the slow down in the economy characterized by record high unemployment and weak consumer demand the government has adopted a loose monetary policy with interest rates kept at very low levels. The government has come out with a series of tax concessions and would continue tax cuts of the Bush era. Though core inflation which excludes the volatile food and energy prices is at a fifty year low and the inflation rate is at a low 1.2 per cent, the rising oil prices are a cause of concern (oil prices have increased by 16 per cent in the last four months). Oil prices have already crossed $90 per barrel and a $15 rise in oil prices would reduce the already low GDP growth by half a percentage point and would erase the stimulative effect of QE2, the bond buying program of $600 billion.

POVERTY: The number of poor people in the US is rising to record levels and the country has the third worst poverty rate among the advanced nations. One in seven Americans was living in poverty in 2009 with a family of four living on less than $21,954 a year, according to the US Census Bureau. The official poverty rate in 2009 was 14.3 per cent (the highest in the last 51 years), up from 13.2 per cent in 2008. This was the second statistically significant annual increase in the poverty rate since 2004. In 2009, 43.6 million people were in poverty, up from 39.8 million in 2008 -- the third consecutive annual increase in the number of people in poverty. Between 2008 and 2009, the poverty rate increased for children under the age of 18 (from 19.0 per cent to 20.7 per cent) and people aged 18 to 64 (from 11.7 per cent to 12.9 per cent), but decreased for people aged 65 and older (from 9.7 per cent to 8.9 per cent).Between 2007 and 2009, the child poverty rate and the number in poverty increased by 2.7 percentage points and 2.1 million.

DOLLAR: The dollar would remain stable until China reduces its purchase of government debt and problems in the Euro region continue. The debt problem in the Euro region especially in Ireland, Iceland, Portugal, Greece and Spain does not seem to subside inspite of huge governmental borrowing and assistance from the Euro zone. It is felt that the contagion would spread to other countries and might affect the financial stability of the Euro zone. The fact that needs to be remembered is that spiraling debt and easy money would result in a weaker dollar.

EXPORTS: The US President has called for doubling of exports over the next five years. If such a thing happen it would greatly spur job creation and economic growth, but, it is a tall order for an economy which has been driven by consumption and investment in housing. One more thorn is the artificial devaluation of the Chinese currency despite a volley a protests from the US. Unless the Chinese currency is allowed to reach its natural level (which would be higher than the current level) the competitiveness of US exports would remain a question mark. Another important cause of worry in the export front is that hi-tech exports from the US are on the decline.

STOCK MARKETS: The positive news in the retail sales front in the past few months and the slowing down of job losses has renewed investor optimism. For the period ending December 24, 2010, the Dow and S&P recorded four consecutive weeks of gains and it was the fifth week of consecutive gains for the NASDAQ. Though volumes are low, the investor sentiment has turned positive as borne out by the facts that, according to the latest AAII Sentiment Survey, the level of investor optimism rose to 63.3 per cent in the week ended December 22, the highest since 18 November 2004. The level of pessimism was the lowest since 24 November 2005 and the bull bear spread was at the highest since 15 April 2004. The Bank of America-Merrill Lynch (BoFa-ML) survey for December 2010 found that 16 per cent of investors were overweight on equities as compared to 1 per cent in the previous year. The US commodities market is also on an upswing. Due to the loose monetary policy investors expect that inflation would move up and therefore many of them had exited from bonds and have starting investing in commodities and the net overweight position in commodities was at 23 per cent.

INSURANCE COVERAGE: The percentage of people without health insurance increased to 16.7 per cent in 2009 from 15.4 per cent in 2008. The number of uninsured people increased to 50.7 million in 2009 from 46.3 million in 2008. The number of people with health insurance decreased to 253.6 million in 2009 from 255.1 million in 2008. This is the first year that the number of people with health insurance has decreased since 1987, the first year that comparable health insurance data were collected.

CONCLUSION

The US government's move to achieve the turnaround by piling up debt (US debt is 60 per cent of GDP) and printing money is fraught with serious consequences. There has been only a partial improvement in the regulation of the financial sector which was the primary cause of the crisis, and without doubt there is much more that needs to be done. After the government support to the financial institutions which were on the verge of collapse, it was expected that they would reform themselves and adopt better control mechanisms and ensure tighter internal controls. But, reports from the financial media point out that no such thing has happened and many of the institutions are back to their old ways. The government also has not acted with alacrity and firmness. This inaction on the part of the government and the financial industry may plant the seeds for financial crisis of a much greater magnitude in the future.

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IMPLEMENTATION OF 5 S IN BANKS

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ABSTRACT

5S'' is a tool with Japanese roots, focused on fostering and sustaining high quality housekeeping. ''5S'' is the beginning of a productive life for everyone, and is fundamental to productivity improvement. A clean, organized and systematic workplace directly impacts MUDA (waste) and thus impacts productivity, Quality, Costs and other factors. The research is on IMPLEMENTATION OF 5S IN BANKS at the Ajmer city. There are three general purposes of carrying out research. The three purposes are exploratory, descriptive and explanatory. The exploratory study helps us to acquire the basic knowledge of problem. Descriptive research is suitable when the problem is clearly structured at the same time, as the researcher has no intention to find connections between causes and symptoms. Explanatory research is used when researchers are identifying factors causing specific phenomena. The purpose of this research work is ***mainly descriptive****, as already stated the research objectives. The aim of this research work is to gain a deeper understanding on how to develop an environment that only includes the required items, effective working environment and eliminate hidden waste to improve the levels of safety & quality at the work place. To summarize, this research is mainly descriptive but with elements of exploratory and explanatory purposes as well. To summarize, it is concluded that the result of collected sample reveals that 85% (34) respondents said that they know about 5S / Housekeeping and only15% (6) respondent said that they don't know about 5S. The analysis of data results that mostly all employees of bank know about 5S but the fact is that they know 5S only in Lehman word that 5S is all about sweeping floors, whipping off items/things and generally making sure that everything in the office stays clean. Infect, 5S is a tool of Japanese roots, focused on fostering and sustaining high quality housekeeping. A clean, organized and systematic workplace which directly impacts MUDA (waste) and thus impacts productivity, Quality, Costs and other factors.'5S' is all about time tested and proven approach (in fact a stepping stone) to achieving world class status.*

KEYWORDS
Banking, Finance, 5S.

INTRODUCATION

Someone has greatly said that practical knowledge is far better than classroom teaching. During this project we fully realized this and come to know about the importance of 5S implementation.

The Subject of our study was "**Implementation of 5S in Banks**". The Report consists of all the necessary information that relates to effective recommendations that are made to implementing 5S.

The report contains first of all brief introduction about the 5S and their benefits. Then it contains survey of banks, implementation of 5S in bank and findings of the research and analysis of the findings and finally conclusion.

Learning is not possible in solitude and has to have the support and able guidance of some people around us in various roles and capacities. The satisfaction and euphoria that accompanies the successful completion of any task would be incomplete without the mention of the people who made it possible because success is the epitome of hard work, undeterred missionary zeal, fast determination, and consideration.

REVIEW OF LITERATURE

A literature review is a body of text that aims to review the critical points of current knowledge and secondary sources. **OSKAR OLOFSSON** is a Sweden-based expert with more than 10 years experience in the fields of TPM (Total Productivity Maintenance) and Lean Manufacturing System. He conducted a survey on the use of the Japanese practice of 5-S for workplace organization using a questionnaire, follow-up the questionnaire with a series of semi-structured interviews and critique findings with the literature. The conclusions of the research was that practice and theory are closely related and any differences in the implementation of 5-S can be attributed mainly to the maturity of the 5-S program. Clearly, there is great scope for the application of 5-S in the non-manufacturing environment.

According to the **RALPH YEARICK** – "5S is Not Just for Manufacturing**".** He has no doubt the 5S process will produce a well-organized and safe storeroom where anyone can locate what they need in 30 seconds or less. In a business where time is money that should go right to the bottom line. Pittsburgh-based Astorino, an architectural and design firm, is improving patient care by applying 5S to hospital layout. Their standardization of patient rooms is making it easier for staff to locate needed supplies, maximize useable space and improve patient flow into available rooms. Their bottom line results include reduced errors and improved efficiency. If 5S can work in diverse businesses such as public relations and healthcare, there's likely a positive role for it in the business.

FRANK MONTABON said that 5S for Offices appear to be a very popular tool for problem solving and continuous improvement. While many might think of this technique as being exclusive to the shop floor, it can be used successfully for back office processes. His article examines how a work office used the kaizen event technique to improve their recruiting of co-ops for frontline supervisor positions. It clearly shows the effectiveness of the technique for back office problems and discusses some ideas to help ensure success with the technique.

In a recent 5S Survey Business Industrial Network promoted the top two reasons for participant's 5S programs not succeeding was the human side of the equation. Out of 1821 acceptable surveys received 67% indicated their 5S programs had not been successful. Of the Japanese surveys received 32% said their programs had not been successful. The top two reasons given were-

1. Lack of senior management support & training.
2. Lack of time.

INTRODUCTION OF 5S

WHAT IS 5S

5S'' is a tool with Japanese roots, focused on fostering and sustaining high quality housekeeping. ''5S'' is the beginning of a productive life for everyone, and is fundamental to productivity improvement. A clean, organized and systematic workplace directly impacts MUDA (waste) and thus impacts productivity, Quality, Costs and other factors.

'5S' is a time tested and proven approach (in fact a stepping stone) to achieving World Class status. The physical environment determines ones behavior. On the other hand, similar behavioral patterns among group of people defines culture. Thus, there is a strong link between culture and physical environment. Extrapolating, one can also find a strong link between the physical environment at the workplace and productivity. So the 5S –

- Systematic approach to better workplace.
- Involves arrangement, cleanliness, discipline and maintenance of standards.
- Assigns a place for everything and ensures everything in its place.
- Is everybody's responsibility.
- Is the starting point of any improvement activity?
- Means easy retrieval of information.

THE 5 S PRINCIPLES

1)	SEIR		SORTOUT	(ORGANIZATION)
2)	SEITON		SET IN ORDER	(ORDERLINESS)
3)	SEISO		SHINING & SPAN	(CLEANLINESS)
4)	SEIKETSU		STANDARDIZE	(CLEAN UP)
5)	SHITSUKE		SUSTAIN	(DISCIPLINE)

5S FRAMEWORK

1. THE FIRST PILLAR : SORT

Remove All Items From the Workplace That Are Not Needed for Current Production Operation."

- Decide what you need.
- This step distinguishes necessary and unnecessary items and eliminates unnecessary items.
- Sort through and then sort out.
- Sort through what you have. Identify what you need and discard what is unnecessary
- Indicator of success.
- Area or percentage space saved

STEPS FOR IMPLEMENTING SORT:

1. **Classification**: Sort out.
2. **Elimination**: Remove unnecessary items like Used / Broken Pens, Useless Papers / Files ,Old Diaries, Broken Furniture's, Old Notices / Leaflets
3. **Storage**: Frequent use / rare use / close / distant location

2. **FIX & SHARE RESPONSIBILITIES**

4. **Use red tag system**.

- Give staff red labels
- Ask staff to go through every item in the work place
- Ask if needed & those that are needed, in what quantity
- Not needed red tag it
- Store in the red tag area

THE TAGS

TABLE: 1.1

	• Allocate a central "Red Tag Area" where items go that cannot be simply thrown in the trash. • Include disposal instructions if necessary. • Appoint a review board for questionable items. (You may not need it but someone else may.)
	• Allocate a "Yellow Tag" location near the workplace. • Review on a specific date. • Store occasionally necessary items in out of the way locations.
	1) Leave "Green Tag" items in the workplace. 2) Set their final location later.

For wavering items-

- Place the suspected items in the red tag area for one week

- Allow the staff to reevaluate the needed items
- At the end of week those who need items should be returned
- Some companies use additional color tags for maintenance or safety issues.

Companies that use Red Tags for quality issues have to determine which color tag to use.

6. **MONITOR PROGRESS**

TABLE: 1.2

FREQUENCY	ACTION
• NOT USED FOR A YEAR OR MORE	CONSULT & DECIDE DISPOSAL. SEND TO SOME OTHER PLACE/SELL/SCRAP
• USED ONLY ONCE IN LAST 6-12 MONTHS	STORE AT A DISTANCE / IN RECORDS ROOM
• USED ONLY ONCE IN LAST 2-6 MONTHS	STORE AT A CENTRAL PLACE IN THE WORK AREA
• USED MORE THAN ONCE A MONTH	STORE NEAR WORK PLACE
• USED WEEKLY / DAILY / HOURLY	STORE NEAR WORK PLACE

WHY SORT IS IMPORTANT:

- A work environment in which
  - ✓ Time
  - ✓ Money
  - ✓ Space
  - ✓ Energy &
  - ✓ Effective resources management is lacking
- Problems in work flow are reduced, communication is improved, product quality is increased & productivity is enhanced.

2. THE SECOND PILLAR: SET IN ORDER

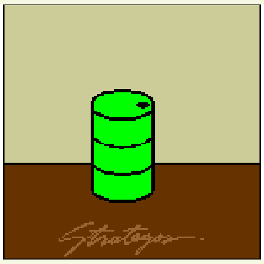
"Arranging Needed Items So That They Are Easy to Use and Labelling Them So That They Are Easy to Find and Put away"

- This step enables determination of the type of storage system and layout that will guarantee that required amounts of necessary items will be easily accessible.
- Set things in order by creating place for everything.
- Put everything in its place
- Keeping accessibility as easy as possible.
- Use the principle of wide range and shallow depth for storage.
- Time saved in searching.
- Time saved in handling material

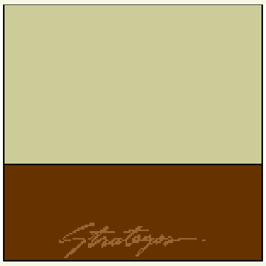
BOUNDARIES

Boundaries identify the designated and location and space for each item. They encourage recoil that is the proper return of an item, as shown below. They also tend to prevent people from placing other items in a designated space. When combined with addresses and nameplates, boundaries are a powerful tool for ensuring that every item returns to its proper place, every time.

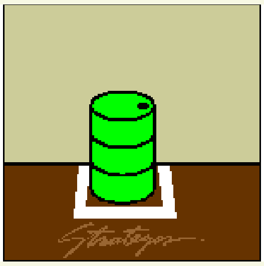
TABLE: 1.3



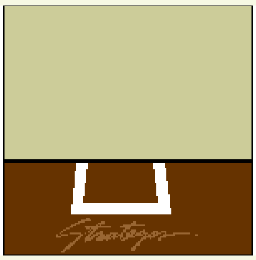
The barrel should be here.



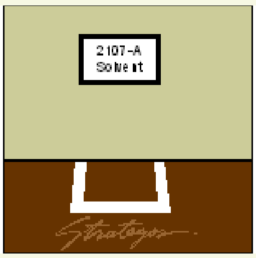
A missing barrel is not obvious.



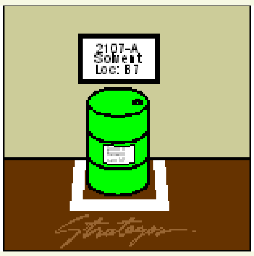
Here, a boundary designates the proper location.



Clearly, something is missing.



An address informs us what Is missing.



A complete address on both the barrel and location encourages its return.

HOW TO IMPLEMENT SET IN ORDER

- Locate items in the workplace according to their frequency of use
- Place frequently used items near the workplace
- Store infrequently used items away from the place of use.
- A let go arrangement for tools so that they go back to original place of storage

3. **THE THIRD PILLAR : SHINE**

"Sweeping Floors, Whipping off Machinery, and Generally Making Sure That Everything in the Factory Stays Clean"

- This step eliminates Dirt, Dust and other foreign matter to make the workplace clean.
- Clean Equipment, Furniture, Notice Boards Records Etc.
- Keep the workplace Spotless.
- Sweeping, wiping, polishing, painting Etc.

Initial Cleaning and Inspection:

- Have to have a plan
- Start at the top and work down
- Clean and inspect major items first
- Be thorough, restore to "like new" condition
- Clean floors and aisle ways last
- Everyone has to participate
- Schedule it
- Take it Serious

4. **THE FOURTH PILLAR :STANDARDIZE**

"Exists When the First Three Pillars - Sort, Set in Order and Shine Are Properly Maintained"

1) Generate a maintenance system for the first three.
2) Provide objectives and indicate training goals.
3) Provide a basis for training
4) Create basis for audit and diagnosis.
5) Provide a means for preventing recurrence of errors and minimizing variability.
6) Provide objectives and indicate training goals.
7) To establish standards to maintain the improvements
8) Creating rules for checking & countermeasures.
9) Visual controls for standards and to reveal abnormalities
10) To prepare checklists and adhere to avoid mistakes

Standardize 5s Activities:

11) Make the rules, then follow and enforce them
12) People usually think 5S fails at Sustain, but it typically fails at enforcing the rules Policies drive behaviors
13) Make the rules simple and easy to follow
14) Use immediate correction
15) Lead by example

5. **FIFTH PILLAR : SUSTAIN**

"Making a Habit of Properly Maintaining Correct Procedures."

- This step is to ensure that everyone sticks to the rules scrupulously and makes it a habit
- Create general awareness about 5S
- Develop norms and monitor success.
- High employee Morale.
- Involvement of People in the Movement.
- 5-S concept training
- 5-S communication board
- One point lesson
- Visual standards and procedures
- Daily 5-minute 5-S activities

Eight Tools To Sustain 5S:

TABLE: 1.4

1	Code of Conduct	A document that spells out the standards of behavior expected of all employees with respect to 5S.
2	5S Corner	A small area where people on the work teams can obtain supplies, information and assistance for their efforts. Usually operated by the 5S Coordinator.
3	5S Checklist	A list of specific items to check regularly within each area. This list is agreed upon by each work team.
4	5S Patrol	A small, rotating team of associates from each area who inspect each area and advise the work teams/
5	Steering Committee	Volunteers from each area meet to determine the overall direction of the effort.
6	Visual Coordinator	The coordinator provides support, advice, training and coordinates activities.
7	Management Champion	An executive with high standing and credibility who has the responsibility for supporting the program.
8	Management Watch	A regularly scheduled event where the Management Champion tours areas under 5S improvement. The purpose is to reinforce behavior through encouragement and ensure that resources are available.

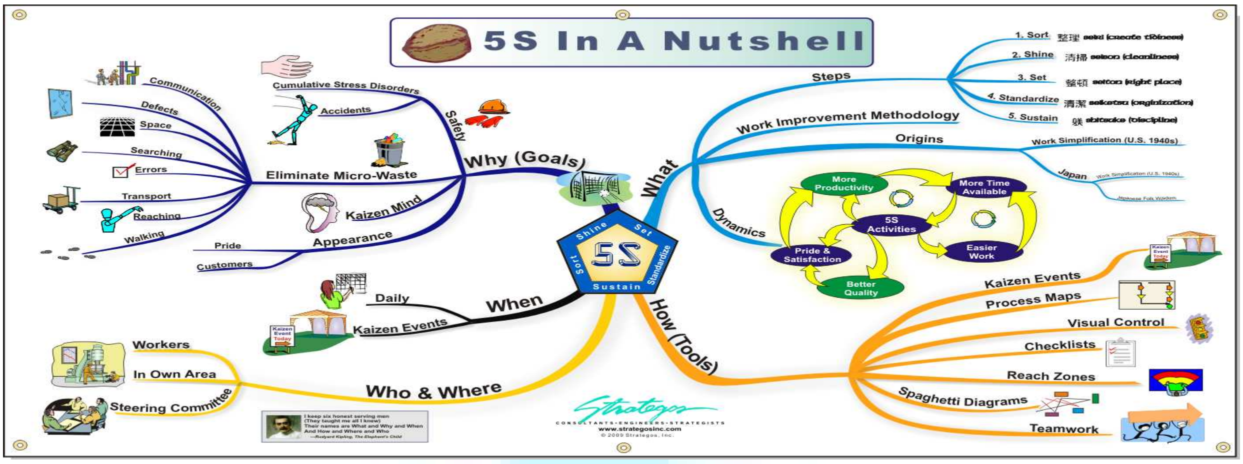
5S Discipline

- Management's support – without this 5S will never work!
- 5S is not something extra, it's part of everyday work
- Get everyone involved – teamwork
- Helps set the base for other Lean efforts
- On-going communication – newsletters, communication boards, short meetings

- Field trips, benchmarking
- Reward and recognition

5S IN A NUTSHELL

FIGURE: 1.3



5S-CERTIFICATION:

- NPCC is introducing a National '5S' Certification to develop and sustain a productivity culture across Mauritius. This Certification will reinforce the Muda Free Mauritius campaign. Achieving Certification is a public declaration of commitment to high quality housekeeping and continuous improvement to meet customer needs.
- Any institution implementing '5S' should apply to the National Productivity and Competitiveness Council (NPCC), Ground Floor, St James Court, St Denis Str, Port Louis for registration.
- A Certificate will be awarded by the NPCC and the Kaizen Institute (Africa Asia Pacific) to any institution which has successfully implemented '5S' practices at the Workplace (Gemba).

TOP 10 TIPS FOR 5S SUCCESS: by Kevin McManus

There are a lot of benefits to be gained by putting a 5S process in place, but many organizations fail to successfully accomplish this goal. The following ten suggestions are intended to help you avoid the failures that others have suffered as you attempt to make your workplace more swept, straightened, sorted, standardized, and self-disciplined.

1. **Don't See Your 5S Initiative as a Stand Alone Effort** –

Besides bringing up 'program of the month' memories from the past amongst your people, treating your 5S initiative as a stand alone process will create a lot of confusion about why you are undertaking this effort and will result in the inefficient use of resources. Many companies use special training, audits, and meetings that have a specific 5S focus in an effort to get the program going. Instead, you should build 5S practices and expectations into your larger performance improvement plan and operational excellence strategies. Similarly, don't form a 5S specific team – instead, build 5S initiative reviews into your regular Leadership Team and workgroup team meetings.

2. **Require Management to Set a Strong 5S Example** –

Nothing will kill a 5S effort quicker than having employees walk by messy managers' desks or work areas right after they have attended a 5S project update meeting. Just as the Leadership Team should be the most effective team in a given company, the work areas of managers in a 5S company should be the cleanest and most organized. Additionally, you should expect every member of management to support 5S practices consistently and regularly – if a manager sees someone not practicing 5S ideals, they should politely challenge those people and ask them to correct the behavior or condition, even if that person does not report to them.

3. **Require Every Supervisor and Manager to Enforce 5S Practices on a Daily Basis**–

The monthly walk through (high performance workplace audit) discussed below serves as a great tool for providing measurable 5S progress and for reinforcing the ultimate in 5S expectations, but you should also recognize that supervisors are conducting performance audits whenever they are out there with their people. What is not said often sends a stronger message than what is said – if a supervisor walks by someone who is violating a 5S (or other type of high performance) expectation and does not say anything, they are telling that employee that their behavior is OK. Similarly, the daily reinforcement of good 5S practices when they are exhibited carries much more weight than saying 'thank you' to the overall group in a meeting.

4. **Incorporate 5S Expectations into EVERY Employee's Job Description** –

If you want your work areas to remain swept, straightened, and shiny, expect each employee to leave them that they when they go home for the evening. This is best accomplished by (1) rewriting EVERY job description to include this expectation, (2) emphasizing this expectation in work group meetings, and (3) providing immediate performance feedback when a workplace does not meet the expectation at the end of a shift or day.

5. **Clearly, and Visually, Define What Each 5S Workplace Should Look Like** –

Before and after' pictures of 5S progress send a strong message about what is expected and will be recognized. Pictures also help people better understand what each 5S concept will look like when it is actually put in place on the job. You may also benefit from taking your work groups over to a '5S best practice' work area and talking about the differences between that workplace and how their own currently looks.

6. **Modify Procedures and Work Instructions to Keep 5S Changes Alive** –

If you want all of your people to adhere to the "A place for everything and everything in its place" philosophy, you had better rewrite your procedures to include steps for putting things back where they belong. You also need to make sure that clear, easy to use procedures exist for disposing of waste or obsolete product or supplies. After all, don't our work instructions define what we are expected to do at work each day?

7. **Build 5S Expectations Into Your Monthly High Performance Work Practices Walk-Through** –

Sure, you can do a special 5S walk-through each month just like you do the monthly safety inspection, but your time will be much better invested if you create a monthly high performance practices walk through assessment tool and include 5S expectations as part of it. For example, in addition to looking for consistency of 5S practices, also look for consistency in the use of visual performance postings, safe work practices, proper lean changeovers, six sigma project support, and employee awareness of high performance concepts as you move through each workplace.

8. **Include 5S Recognition in Your Regular Employee Recognition Efforts** –

The best thing you can do is recognize each team each month that meets or exceeds the minimum score on the high performance work practices walk through. Avoid the tendency to give out a "Cleanest Workplace of the Month" or a "Most Organized Department" award, and especially avoid punishing people for being 'one of the worst'. You only have so many recognition dollars to spend in your budget – use them to recognize team success against an all encompassing set of high performance work practice criteria.

9. **Create a 5S Punch List and Show Regular Progress Towards Its Completion –**

One of the best things about putting 5S in place is that once you get over the initial hump, it is relatively easy to keep 5S alive. For example, once you have sorted out all of your obsolete equipment and supplies, you should not have to do those tasks again as long as your people each fulfill the expectations of their 'modified' daily job. By creating a single 5S punch list for the whole facility, reviewing it weekly as part of your Leadership Team meeting (don't form a 5S Implementation Team), and tracking the percent complete for each action item on the action plan, you can easily keep up with the progress of your initiative.

10. **Create a 5S Implementation Plan with Milestones that Appreciate Process Evolution –**

If you follow the above nine guidelines, you should see progress in a relatively short amount of time. Additionally, you should see little regression back to where you were when you started your 5S initiative. For example, after 3-6 weeks of consistent sweeping and straightening up at the end of each day, that behavior should have become a habit, each workplace should be much cleaner, and the need to emphasize and spend time on these two pieces of the 5S puzzle should be low. Also, once you have undertaken that big effort to get rid of all of the stuff you have collected over the years and created a reorganized approach to storage in all work areas, you should not have to worry about doing those tasks again.

Finally, hope you can see how other operational excellence and lean six sigma approaches can benefit from using several of these approaches as well. For example, if you are going to change job descriptions to include a 5S emphasis, consider including six sigma project support and process improvement tool practice in those changes as well. In short, build high performance practices, expectations, and measurements into the larger work systems.

RESEARCH METHODOLOGY AND RESEARCH PROFILE

OBJECTIVE

1. To develop an environment that only includes the required items, where and when they are needed.
2. To provide efficient and effective working environment with dramatically reduced wastes in waiting on people, information and/or equipment and searching for whatever is missing.
3. To identify and eliminate waste hidden in the work area.
4. To improve the levels of safety, quality and reduce cost.

DATA COLLECTION METHODS

Primary data: The major source of primary data is the information and questionnaire collection from the respondents.

Secondary data: The major source of secondary data is the reference books, internet, and articles.

RESEARCH DESIGN

There are three general purposes of carrying out research. The three purposes are exploratory, descriptive and explanatory. The exploratory study helps us to acquire the basic knowledge of problem. Descriptive research is suitable when the problem is clearly structured at the same time, as the researcher has no intention to find connections between causes and symptoms. Explanatory research is used when researchers are identifying factors causing specific phenomena.

The purpose of this research work is **mainly descriptive**, as already stated the research objectives. The aim of this research work is to gain a deeper understanding on how to develop an environment that only includes the required items, effective working environment and eliminate hidden waste to improve the levels of safety & quality at the work place. To summarize, this research is mainly descriptive but with elements of exploratory and explanatory purposes as well.

SAMPLE DESIGN

- SAMPLE UNIT: Bank of Baroda, Punjab National Bank and Axis Bank ltd.
- SAMPLE SIZE: 40
- SAMPLE SELECTION: Random, convenient

LIMITATIONS OF THE STUDY

In attempt to make this project authentic and reliable, every possible aspect of the topic was kept in mind. Nevertheless, despite of fact constraints were at play during the formulation of this project. The main limitations are as follows:

Due to limitation of time only few people were selected for the study. So the sample was not enough to generalize the findings of the study.

People were hesitant to disclose the true facts.

The chance of biased response can't be eliminated though all necessary steps were taken to avoid the same.

It was very difficult to convince the bank employees to give full cooperation for implementation of 5S.

Respondent have firsthand experience related to survey so they are not comfortable with going for research.

5S IMPLEMENTATION IN BANKS

PROCESSES FOR IMPLIMENTING 5S IN BANK

Step 1: Start with the Leadership Team

- As with any improvement effort, implementation of the 5S's must be driven from the top of the organization.
- Only Top Management can create the environment needed and give the effort the visibility and importance it needs for long term viability.

Step 2: Build the Infrastructure

- The 5S effort should fit within an organization's existing improvement structure.
- Divide & conquer by establishing 5S subcommittees for Communications, Training, Project Support, and Best Practices.

Step 3: Launch Communications

- Conduct short, focused, and frequent communication sessions with all employees on the what, why, how, when, and who of the 5S initiative.
- Deliver the message in several formats including group meetings, using the organizations' intranet or website, bulletin board postings, and internal newsletters.

Step 4: Train Teams in 5S Techniques

- Develop a plan to train everyone in basic 5S concepts and then supplement the generic training with just-in-time training in work-area-specific practices.
- Note that the initial teams may need to be trained in problem-solving techniques and root cause analysis.
- Additionally, there may be a need to provide training for the leadership team in communication skills, recognition strategies, and facilitation skills.

Step 5: Begin 5S Pilots

- Select areas that need the 5S's (and that you project will be successful in adopting 5S practices) as pilot areas. What is learned in the pilot areas will be used to help develop a full roll-out plan.

- The first pilot work areas to receive 5S treatment should be ones with high visibility. For example, select work areas in which nobody wants to work because they are so congested or dirty.

STEP 5.1 RED TAG INSPECTION SHEET

SEARCH ALL ITEMS USED IN BANKS

Floors	Cabinets	Work clothes	Telephone
Cheques	Stamps	Pin Stand	Telephone Directory
Aisles	Benches, tables	Helmets	In & out tray
Cheque Books	Paper weight	Dust Bin	Calendar
Work areas	Chairs	Work shoes	Pencil holder
Note Counting Machine	Lockers	Demand Draft	Calculator
Workstations	Carts	Trash cans	Stapler
Inside cabinets	Shelves	Pots	Puncher
Old bulletin boards	Registers	Tables	Wires
Sheet/File Holder	Racks	Files/Documents	Printer Machine
Small rooms	Diary	Table Lamp	Scanner Machine
Laptop	Closets	Loading docks	Sheds
Offices	PC	Items hung up	Xerox Machine

- LOOK FOR UNNEEDED EQUIPMENT
  Machines, small tools, Dies, jigs, bits, Conveyance equipment, Plumbing, electrical parts

- LOOK FOR UNNEEDED FURNITURE
  Cabinets, Benches, tables, Chairs, Carts

- SEARCH THESE STORAGE PLACES
  Shelves, Racks, Closets, Sheds, Search the walls, Items hung up, Old bulletin boards, Signs, other

- LOOK FOR OTHER UNNEEDED ITEMS
  Work clothes, Helmets, Work shoes, Trash cans, Other

STEP 5.2 ITEM DISPOSITION LIST

Use this list to help determine the disposition of each red tagged item, then transfer the information onto both the red tag and the Needless Item Log

TABLE: 3.2

Category	Action
Obsolete	• Sell • Hold for depreciation • Give away • Throw away
Defective	• Return to supplier • Throw away
Used about once per week	• Store in area
Used less than once per month	• Store where accessible in plant
Seldom used	• Store offsite (or in distant place) • Sell • Give or throw away
Use unknown	Store until information is found

STEP 5.3 MAKE IT OBVIOUS WHERE THINGS BELONG

1. Lines
2. Divider lines, Outlines, Limit lines (height, minimum/maximum), Arrows show direction
3. Labels
4. Color coding, Item location
5. Signs
6. Equipment related information, Show location, type, quantity, etc.

STEP 5.4 SET IN ORDER CHECK SHEET

EQUIPMENT

- Machines, Small tools, Dies, Jigs, Bits, Conveyance equipment, Cleaning equipment

FURNITURE

- Cabinets, Benches, Tables, Chairs, Carts, Shelves, Racks

OTHER ITEMS

- Charts, graphs, bulletin boards, Pens, pencils, Work clothes, Helmets, Work shoes, Trash cans

STEP 5.5 SHINE CHECK SHEET

- Ceilings , Aisles , Workstations ,Corners, under equipment, Loading docks, Walls, Doors, Pillars, posts, Floors ,Machines (PC, Laptop, Scanner, Money Counting Machine) ,Conveyance equipment ,Plumbing, sinks ,Cabinets, shelves, racks ,Carts, Racks ,Drawers, storage bins ,Fixtures, power boxes

STEP 6: ESTABLISH BEST PRACTICES

- Creation (and use) of a Best Practices Database can help multiply the impact of 5S successes by providing the means to share successes throughout the organization.

STEP 7: DEVELOP A FULL ROLL-OUT PLAN

- After completing the initial pilots and before involving the rest of the organization in the 5S effort, step back and evaluate how the pilots went.
- Get ideas from members of the pilots about how to strengthen the 5S process and use those ideas to develop a roll-out plan.
- A comprehensive roll-out plan defines the sequence of events, establishes roles, responsibilities, and performance measures.

STEP 8: CONTINUALLY EVALUATE & ADJUST

- As with any process, as lessons are learned, make improvements to the 5S effort.
- Modify and strengthen the infrastructure, select new tools to add to the "arsenal," develop improved methods to measure and communicate progress, and challenge work areas to constantly improve.

5S WORKSHOP AGENDA FOR OFFICE

Day 1

Pinnacle instructor and your 5S Champion only:

- Instructor tours facility
- Instructor and sponsors select pilot area
- Organize participants into teams
- Prepare of classroom and materials

Begin 5S Workshop with participants:

- Introduction
- Overview of Lean
- The eight deadly wastes in the workplace
- Implementation Plan
- Sort using the red tag system
- Exercise - apply sort to pilot area

Day 2

1) Review day 1 activities and Implementation Plan
2) Set in order
3) Exercise - create a visual layout for all material and tools in pilot area
4) Shine
5) Exercise - design shine schedules and assignments for pilot area
6) Standardize
7) Exercise - create visual aids and standard work for the pilot area

Day 3

- Review day 2 activities and Implementation Plan
- Sustain
- Exercise - defining outstanding actions to complete pilot area
- Auditing with checklist and tracking results
- Complete implementation

INTERPRETATION AND ANALYSIS OF FINDINGS

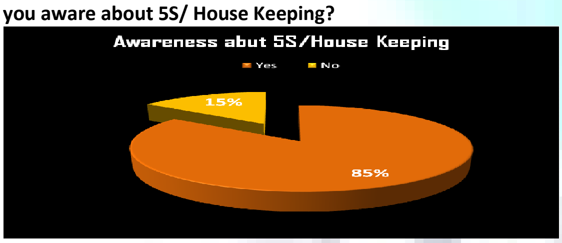
TOOLS AND TECHNIQUES

No study could be successfully completed without proper tools and techniques. For the better presentation and right explanation I used tools of statistics and computer very frequently. Basic tools which I used for project from statistics are:

* Bar Charts * Pie charts * Tables

Bar charts and pie charts are really useful tools for every research to show the result in a well clear, ease and simple way. Because I used bar charts and pie charts in project for showing data in a systematic way, so it need not necessary for any observer to read all the theoretical detail, simple on seeing the charts anybody could know that what is being said.

Q.1 Are you aware about 5S/ House Keeping?



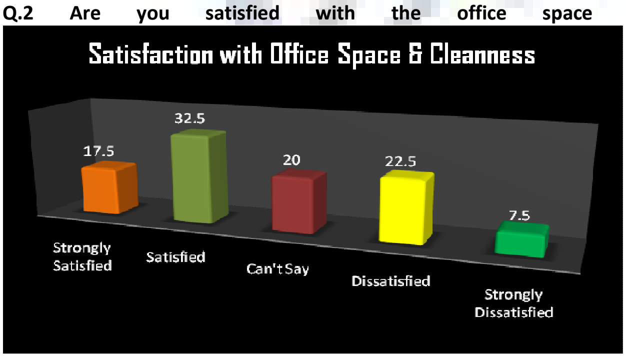
Q1. Awareness about 5S / House Keeping	Percentage (%)
Yes	85

INTERPRETATION:-

The result of collected sample reveals that 85% (34) respondents said that they know about 5S / Housekeeping and only15% (6) respondent said that they don't know about 5S. The analysis of data results that mostly all employees of bank know about 5S but the fact is that they know 5S only in Lehman word that 5S is all about sweeping floors, whipping off items/things and generally making sure that everything in the office stays clean.

Infect, 5S is a tool of Japanese roots, focused on fostering and sustaining high quality housekeeping. A clean, organized and systematic workplace which directly impacts MUDA (waste) and thus impacts productivity, Quality, Costs and other factors.'5S' is all about time tested and proven approach (in fact a stepping stone) to achieving World Class status.

Q.2 Are you satisfied with the office space & clear?



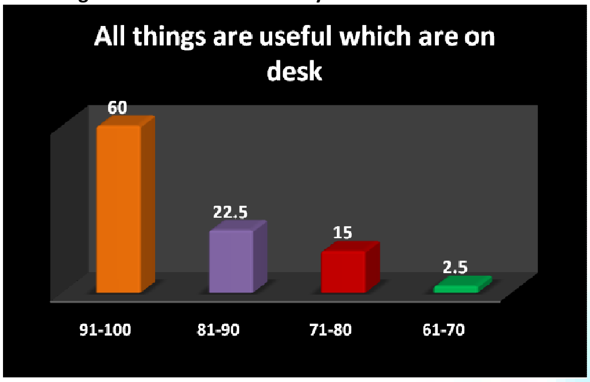
Q2. Satisfaction with Office Space & Cleanness	Percentage (%)
Strongly Satisfied	17.5
Satisfied	32.5
Can't Say	20
Dissatisfied	22.5
Strongly Dissatisfied	7.5

INTERPRETATION

In the given study it was found that only 17.5% (7) respondents are strongly satisfied, 32.5% (13) are satisfied, 20% (8) can't say, 22.5% (9) are dissatisfied, 7.5% (7) are strongly satisfied with office space & cleanness in office. It shows that only 50% respondents are having positive attitude, 30% have negative attitude & 20% are neutral towards space & cleaning in bank.

Respondents tried to gave diplomatic feedback because they were liable toward bank. Infect, the respondents were also not satisfied with office cleaning & space that were neutral.

Q.3 All things are useful which are on your desk?

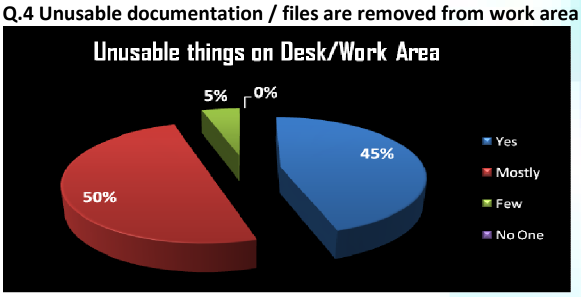


Q3. All things are useful which are on Desk (%)	Percentage (%)
91-100	60
81-90	22.5
71-80	15
61-70	2.5

INTERPRETATION:-

In this research 60% (24) respondents said that 91 to 100% things are useful which are on desk. 22.5% (9) said 81 to 90% , 15% (6) said 71 to 80% things are useful which are on desk. But this kind of feedback depend upon the designation of respondent in bank. Top management or officers keep very less unusable items on their desk and clerks, cashiers; typists keep more unusable items on desk.

Q.4 Unusable documentation / files are removed from work area or desk?

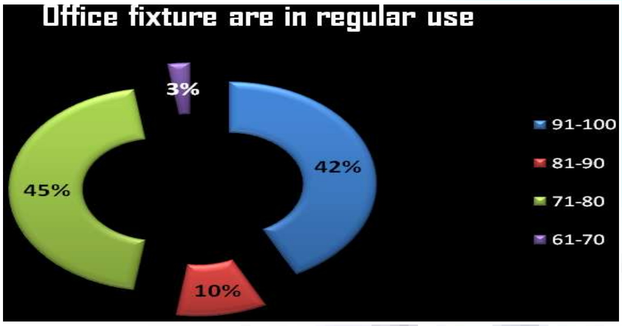


Q4. Unusable Files/Documents on Desk or work area	Percentage (%)
Yes	45
Mostly	50
Few	5
No One	0

INTERPRETATION:-

In the undertaken study it was found that 45% (18) employees said that all unusable items have been removed from the work place or desk & 50% (20) said mostly while 5% (2) said that few unusable items have been removed. This study also depends upon position of bank employees & type of job they have.

Q.5 All office fixtures are in regular use (monthly) i.e. desks, computers, office equipment?

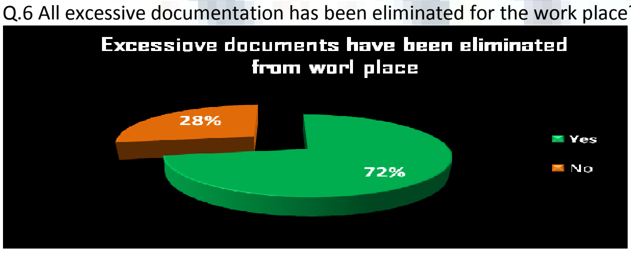


Q5. Office Fixtures are in Regular (Monthly) use (%)	Percentage (%)
91-100	42.5
81-90	10
71-80	45
61-70	2.5

INTERPRETATION:-

Out of 40 respondents 42.5% (17) respondents believes that 91-100% office fixtures (desks, computers, office equipments) are in regular (monthly) use while 10% (4) believes that 81-90% fixtures are in regular use against 45% (18) respondents who said that 71-80% fixtures are in regular use. This result shows that bank really needs to implement 5S which will create more space in office.

Q.6 All excessive documentation has been eliminated for the work place?

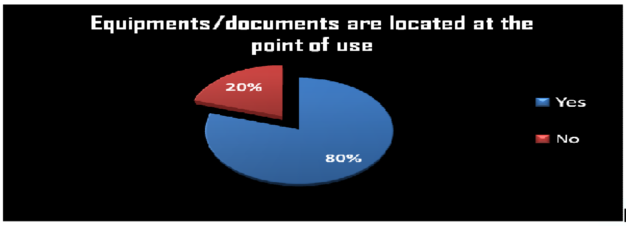


Q6. Excessive documents have been eliminated from work place	Percentage (%)
Yes	72.5
No	27.5

INTERPRETATION:-

In the given study it was found that out of 40 respondents approx 72% (29) removed all excessive documents from work place / desk while approx. 28 respondents said no. when I observed and tried to find the practical aspect behind this finding, it was not like that. They remove excessive items but not instantly.

Q.7 Equipment/documents are located at the point of use?

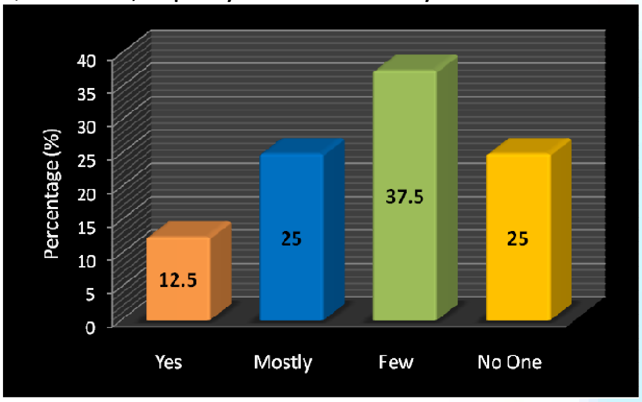


Q.7 Equipments/documents are located at the point of use	Percentage (%)
Yes	80
No	20

INTERPRETATION:-

In the undertaken study it was found that out of 40 respondents 80% (32) respondents said that all equipments/ documents are located at the point of use while 20% (8) respondent said equipment or items are not set orderly. It shows that some items are still their in office which requires implementation of "Set in Order" framework.

Q.8 All shelves, frequently used items are clearly labeled?

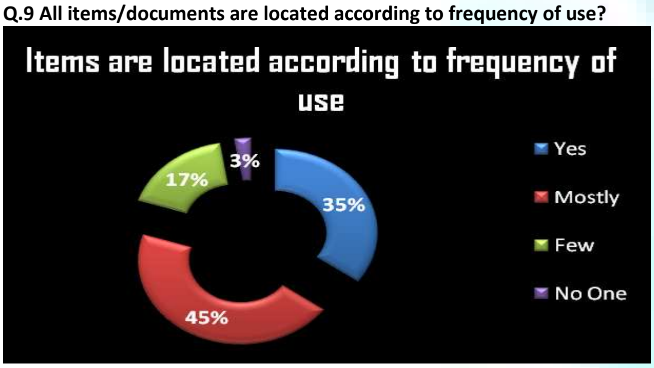


Q.8 All Shelves, frequently used items are clearly labled	Percentage (%)
Yes	12.5
Mostly	25
Few	37.5
No One	25

INTERPRETATION:-

Out of 40 respondents 12.5% (5) respondents said that all shelves & frequently used items are clearly labled while 25% (10) said mostly items are clearly labeled & large no. of respondents (37.5%) said only few shelves & frequently used items are labeled against 25% (10) who said no one item or equipment are labeled. It means more then 80% shelves & items/equipments are not labeled in bank & mostly respondents believe that labeling of items is very required.

Q.9 All items/documents are located according to frequency of use?

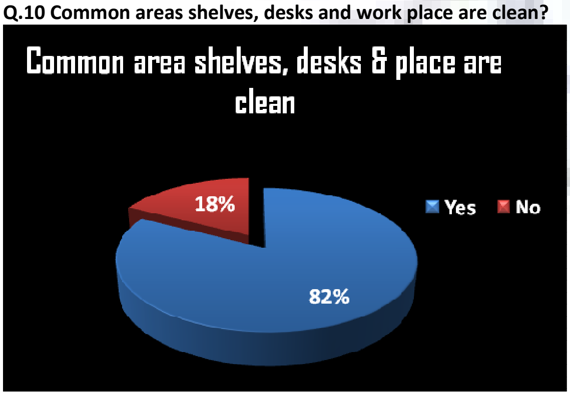


Q9. Items are located according to frequency of use	Percentage (%)
Yes	35
Mostly	45
Few	17.5
No One	2.5

INTERPRETATION:-

This research found that out of 40 respondents 35% (14) respondents said that all equipments/ documents are located according to frequency of use while 45% (18) respondent said mostly equipment or items are set orderly. 17.5% (7) said few items are placed according to frequency of use while only 2.5% (1) person said that items are orderly placed. It shows that some items are still their in office where "Set in Order" is required.

Q.10 Common areas shelves, desks and work place are clean?

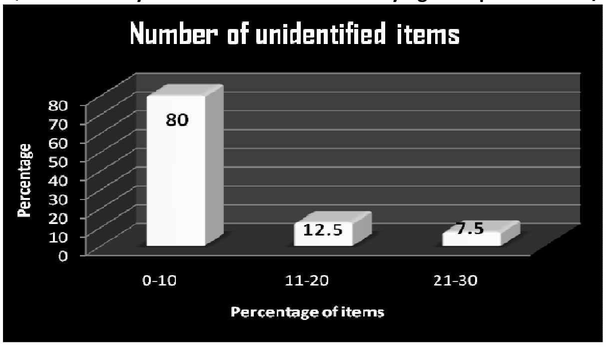


Q 10. Common area shelves, desks & Place are clean	Percentage (%)
Yes	82.5
No	17.5

INTERPRETATION:-

In the given study it was found that out of 40 respondents 82.5% (33) belieces that common areas, shelves, desks And work place are clean while 17.5% (7) said that work place are not clean which found very true when it was observed in bank.

Q.11 How many items are unidentified or laying on top of cabinets/shelves/tables?



Q.11 Number of unidentified items?	Percentage (%)
0-10	80
11-20	12.5
21-30	7.5

INTERPRETATION:-

The result of collected sample reveals that out of 40 respondents 80% (32) said that only 0-10% unidentified items are lying on top of cabinates /shelves or tables while 12.5% (5) respondents said that 11-20% unidentig=fied items are lying on cabinates and only 7.5% (3) believes that 21-30% items unusable which are on desk, counter, shelves.

Q.12 Are you following the safety norms?

Q.12 Are you following safety norms?	Percentage (%)
Definitely	62.5
Sometimes	37.5
No	0

INTERPRETATION:-

Out of 40 respondents 62.5% (25) respondents believes that they are following safety norms while 37.5% (15) believes that sometime they follow safety norms & no one said no. It is very difficult to find out they reality of this feedback because this is intangible in nature. It depends upon the employee's behavior, attitude and awareness towards safety norms & organization.

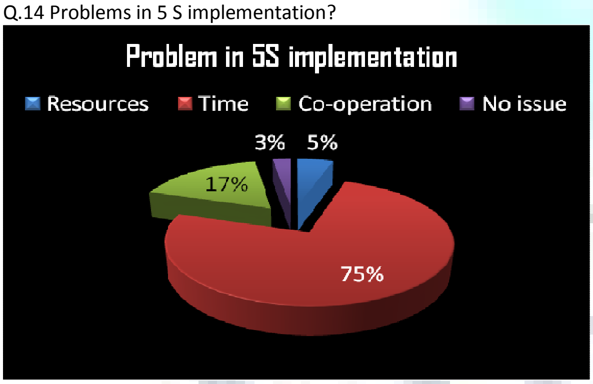
Q.13 Do you keep your work place clean, ordered, neat at all time?

Q.13 You keep your work place clean, ordered & neat	Percentage (%)
Definitely	65
Sometimes	40
No	0

INTERPRETATION:-

It was found that 65% (24) respondents said that they keep their work place clean, safe, ordered and neat at all time while 40% (16) respondents said that they keep their workplace clean and ordered. This analysis shows that mostly all bank employees are more conscious about cleanness and neatnss.

Q.14 Problems in 5 S implementation?



Q.14 Problem in 5S implementation?	Percentage (%)
Resources	5
Time	75
Co-operation	17.5
No issue	2.5

INTERPRETATION:-

In this research it was found that out of 40 respondents only 5% (2) believes that resource are the main problem in implementing 5S/house keeping in office while 75% (30) believes that due shortage of time 5S is very difficult to implement in office and 17% (7) said that due to lack of coordination between employees and top management or between subordinates is the main reason of 5S implementation failure. Few persons who are on high position, said that there is no issue regarding house keeping.

CONCLUSIONS AND SUGGESTIONS

CONCLUSIONS

5S is the name of a workplace organization methodology that uses a list of five Japanese words which, transliterated and translated into English, start with the letter S. The list describes how items are stored and how the new order is maintained. The decision making process usually comes from a dialogue about standardization which builds a clear understanding among employees of how work should be done. It also instills ownership of the process in each employee. The result or benefits of applying each and every 'S' in bank is given below-

1S - SORTING

Identify the items that are needed to perform work in the work areas. Clear (sort out) all other items from the work area.

2S - SET IN ORDER

All needed items have a place in the work area and each needed item is in the correct place. Improve ease of or need for retrieval.

3S - SHINE

Proactive/preventive housekeeping to keep work areas, work surfaces, and equipment clean and free from dirt, debris, oil, etc.

4S - STANDARDIZE

Standardization provides the following benefits:

- Do things in a consistent and standard way.
- Standardize activities, procedures, instruction, schedules, and the persons responsible for helping keep the workplace clean and organized.
- Standardize work area layouts and storage techniques wherever possible.

5S - SUSTAIN

Integrate 5S principles into the organization in order to sustain new standards and continually improve the workplace.

To **summarize**, it is concluded that the result of collected sample reveals that 85% (34) respondents said that they know about 5S/House keeping and only15% (6) respondent said that they don't know about 5S. The analysis of data results that mostly all employees of bank know about 5S but the fact is that they know 5S only in Lehman word that 5S is all about sweeping floors, whipping off items/things and generally making sure that everything in the office stays clean. Infect, 5S is a tool of Japanese roots, focused on fostering and sustaining high quality house keeping. A clean, organized and systematic workplace which directly impacts MUDA (waste) and thus impacts productivity, Quality, Costs and other factors.'5S' is all about time tested and proven approach (in fact a stepping stone) to achieving world class status.

SUGGESTIONS

Various standards and guidelines should be followed by all banks to sustain 5S which are-

Desk/Table should contains

1. Telephone
2. Telephone Directory
3. In & out tray
4. Calendar
5. Pencil holder
6. Calculator
7. Stapler
8. Puncher

Multi-Purpose Tables/ 2-Drawer Cabinets/ Back Cabinets

1. Documents/ small equipments used for the day
2. Magazines should be placed on the top of the shelves or back cabinets but shall be current and kept every end of the day
3. No documents should be on top of the shelves and tables at the end of the day
4. Drawers should be closed properly at all times
5. Files/ Documents should be neatly arranged and clearly labeled inside drawers/ cabinets
6. It should not contain personal effects except at one side of the desk

Seating Units

1. Blazers/ Jackets should be neatly placed on chairs and kept inside drawers
2. All seating units should be at proper locations and neatly arranged
3. Only one pillow maybe placed on top of the chair
4. Chairs should be squarely tucked under the table and only one pillow(if any)left on it

Equipments (Computers, Typewriters, Calculator)

1. During break time, computer monitor must be turned off
2. Confidential papers/ tools must be kept
3. At the end of the day, computers must be switched off
4. Equipment tops must be cleared of all papers, files, documents, diskettes and office supplies
5. Excess paper shall be stacked/ labeled properly inside drawer shelves or furniture/ printer tables

Cabinets

1) Top should be clear and clean of any items/ files
2) All files should be arranged systematically, neatly and properly labeled
3) It should be properly closed at all times
4) No personal effects should be stored inside

Floors/ Walls/ Ceilings

1. During the day, it should be free of trash, dirt and litter. It should also be free from any material that may cause slippage.
2. It should not be used for storing empty cartons. Cartons with continuous forms shall be properly stacked/ labeled in one area of the department
3. All passageways should be free of wires and other tools

Dividers

1. Pictures, posters, memos and notes should neither be pinned nor nailed on the divider of workstation
2. Cork boards and white boards should be attached with standard metal hooks
3. Packaging tapes, scotch tapes and other adhesives should not be used

Physical Appearance

1. Employee ID should be worn at all times
2. Office attire should be decent and appropriate for office work/ environment
3. Hair should be neatly cut and combed
4. For female employees, enhance your own beauty by wearing slight make-up and lipstick
5. Shoes should be properly cleaned and shine
6. Men must wear socks at all times

Client relations

1. Answer telephone calls courteously at all times and return calls promptly
2. Calls should be answered within four rings
3. The person answering the phone shall identify himself by saying, "Hyundai Makati, this is (name) speaking, how may I help you?"
4. The caller should be advised if the call will be transferred to another person or local.
5. In cases where all members of a department will be gone, all calls must be forwarded to another department
6. The person answering the call must take note of the date/ time, name and message of the caller if the person he/she is looking for is not available to take the call.
7. At all times, employee's chairs are for the respective employee's use

GENERAL SUGGESTIONS

1. Floors should be kept clear of objects and substances which could cause slips, trips, or falls
2. Stairways, emergency exits and corridors are kept clear to ensure free passage of persons if required in an emergency
3. Containers, boxes, equipments and materials stored in a manner that prevents objects from falling
4. All combustible materials and flammable liquids are stored in accordance with safety standards
5. No smoking rules are enforced throughout the company premises
6. The egress route must be accessible at all times
7. Cardboard boxes should be used for inactive files but kept as references

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ANNEXURES

QUESTIONNAIRE

Serial No. ___
S.No. _______

I am conducting research on "Implementation of 5 S in Banks". Kindly help me to obtain the desired information by giving couple of minutes from your valuable time.

Name____________________ Designation: ___________________________

Gender: **M** ☐ **F** ☐ Age: _____________________

Income: ≤ 3 Lac ☐ > 3 Lac ☐ Address: _______________________________

1. Are you aware about 5S/ House Keeping?

   ☐ Yes ☐ No

2. Are you satisfied with the office space & cleanness? (1 = Strongly Agree)

   1 2 3 4 5

3. All things are useful which are on your desk?

   ☐ % useful

4. Unusable documentation / files are removed from work area or desk?

   ☐ Yes ☐ Mostly ☐ Few ☐ No One

5. All office fixtures are in regular use (monthly). i.e. desks, computers, office equipment etc?

   ☐ %

6. All excessive documentations have been eliminated for the work place?

   ☐ Yes ☐ No

7. Equipment / documents are located at the point of use?

   ☐ Yes ☐ No

8. All shelves, frequently used items are clearly labeled?

   ☐ Yes ☐ Mostly ☐ Few ☐ No One

9. All items/documents are located according to frequency of use?

   ☐ Yes ☐ Mostly ☐ Few ☐ No One

10. Common areas shelves, desks and work place are clean?

    ☐ Yes ☐

11. How many items are unidentified or laying on top of cabinets/shelves/tables?

    ☐ % items

12. Are you following the safety norms?

    ☐ Definitely ☐ Sometimes ☐ No

13. Do you keep your work place clean, ordered, neat at all time?

    ☐ Definitely ☐ Sometimes ☐ Not at all ☐ Don't Know

14. Problems in 5 S implementation-

    ☐ Resources ☐ Time ☐ Co-operation ☐ No Issue

Thank you for your valuable time and information. Your ideas and suggestions are welcome

____

____

Date _______________

Place _______________ **(Signature)**

REQUEST FOR FEEDBACK

Esteemed & Most Respected Reader,

At the very outset, International Journal of Research in Commerce and Management (IJRCM) appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to take this opportunity to request to your good self to supply your critical comments & suggestions about the material published in this issue as well as on the journal as a whole, on our E-mails i.e. **info@ijrcm.org.in** or **infoijrcm@gmail.com** for further improvements in the interest of research.

If your good-self have any queries please feel free to contact us on our E-mail **infoijrcm@gmail.com**.

Hoping an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

Sd/-

Co-ordinator