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INTERNATIONAL MANAGEMENT  
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INTERNATIONAL BUSINESS  
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AL GHURAIR UNIVERSITY | PO BOX  
37374 DUBAI | UAE.  
TEL: (+971 4) 4200223 EXT: 323 | FAX:  
(+971 4) 4200224  
MOBILE: (+971 50) 836 7165  
[GOUHER@AGU.AC.AE](mailto:GOUHER@AGU.AC.AE) |  
[GOUHER@USA.NET](mailto:GOUHER@USA.NET)

# Contents

<b>Credit Risk Management Practices of Indian Banking Industry - A Comprehensive Analysis</b>	
Dr. D. THIRUVENGALA CHARY* P.LAXMI NARSIMHA MURTHI*	----- (1-10)
<b>Role Of Banks In Financial Inclusion – Some Policy Initiatives</b>	
DR. K. RAJIREDDY * , K. VENKATESH SATYA**	----- (11-18)
<b>Challenges and Opportunities In Retail Banking</b>	
DR. SRINIVASA RAO*	----- (19-26)
<b>Current Account Deficit – Corrective Measures &amp; Strategies – Students Perspective</b>	
MR. SWAMINATH S*	----- (27-34)
<b>The Management of Finance in Kantilla’s Arthasastra</b>	
*P.VENKATA SUBBA RAO , S. SOMA SEKHAR**	----- (35-40)
<b>The Implementation of Strategic Management Accounting Based on Value Chain Analysis</b>	
MR. B. CHAKRAVARTHI*, MR. SK. IRSHAD**	----- (41-46)
<b>Work Life Balance Among The Working Women In Private Sector Banks In Visakhapatnam City</b>	
DR.M.UMA DEVI* , DR.D.SUDHAKAR**	----- (47-55)
<b>A Research Paper On Performance Of Fertilizer Industry (Sector Wise) A Comparative Study</b>	
PRASADA RAO BONDADA * , K.V. RAMANA MURTHY**	----- (56-64)
<b>A Study on Problems and Prospects in Accessing Institutional Finance by Sme’s In India</b>	
Dr. B. NAGARAJU* , Sri.KAVITHA VANI S.D **	----- (65-69)
<b>A Critical study on Employee Attrition in Private Engineering Colleges at Kurnool</b>	
DR.P.SUCHITRA*	----- (70-74)
<b>Working Capital Management Of Cement Industry In Meghalaya – A Comparative Analysis Of Selected Industry</b>	
DR.K.C.BISWAL*	----- (75-96)
<b>A Study of Cost and Returns on Cultivation of Paddy in Nizamabad District</b>	
DR. M. THUKARAM* , V. JAGADISHWER**	----- (97-99)
<b>CUSTOMER SATISFACTION TOWARDS ATM SERVICES</b>	
T.LOKESWARA RAO* ,DR.G.TULASI RAO ** ,M.SREERAMARAJU***	----- (100-110)

## Credit Risk Management Practices of Indian Banking Industry -A Comprehensive Analysis

**Dr. D. THIRUVENGALA CHARY\***  
**P.LAXMI NARSIMHA MURTHI\*\***

**Abstract:** A paradigm shift is taking place in global banking industry and its regulation with greater emphasis on managing financial risks. Since the global financial crisis, the regulatory environment for the banking sector has changed significantly globally. Even as growth, inclusion and stability have been the key focus areas in the Indian context, the current regulatory and policy environment is critical to ensure that banks remain financially sound and profitable. Besides stricter regulatory requirements, majority of the banks foresee deteriorating asset quality as one of the most critical challenges impairing profitability of Indian banking sector.

Biggest challenge facing the banking sector is NPAs and their asset qualities. Credit risk has proved to be the most critical of all risks faced by a banking industry. The effective management of credit risk is a critical component of comprehensive risk management process, which is essential for long-term success of a banking institution. Credit risk management is interlinked with the regulatory framework and in India the regulation at various stages has contributed to the present situation to become worse.

This article attempts to focus mainly on the causes and consequences of NPAs, policy directives of RBI, initiatives of Indian Government, scenario of NPAs sector wise and bank group wise and finally the curative measures for NPAs in India. The study presents an analysis of trends in asset quality and credit management of banks in India based on the granular data. Further it draws some inferences about the quality of credit management in banks and how it has contributed to the recent trends in asset quality. Finally, this paper also focuses on identifying the suggestive ways for the regulators, policy makers, banks and bank customers to come out from this burning issue.

**Keywords:** *Financial Risk, Global financial crisis, NPAs, Risk Management Process, Credit Risk Management.*

### Introduction:

The quality of assets is an important indicator of banks financial health. It also reflects the efficacy of banks' credit risk management and the recovery performance. In a bank dominated economy such as India, the asset quality of the banking system has important implications for the stability of the overall financial system. The general perception about a bank's health is greatly determined by the level of non-performing advances (NPAs) held in its books. Biggest challenge faced by today's banking sector in India is NPAs and their asset qualities.

The business of banking essentially involves intermediation – acceptance of deposits and channelizing those deposits into lending activities - and credit risk is direct fallout of this intermediation process. Certain amount of default and impairment of assets are likely to show up in the normal course of banking business and hence, credit risk management assumes a critical role in ensuring that such impairment is contained to a minimum.

As the modern banking business is extremely diversified and became more complex and highly competitive, banking products became more sophisticated, hence risks in this business also increased. Although, the risks from intermediation became more transitive and contagious, the evolution in the credit risk management failed to keep pace. The advanced

credit risk management necessitated a granular analysis of the risks that the banks were being exposed to; however, they failed to appreciate these requirements and relied on a primitive management information system.

Against this backdrop, the present paper is proposed to analyze how Indian banks have dealt with credit risk over the last decade, the present state of asset quality of Indian banks and the various factors that have contributed to the present situation. The analysis is based on a detailed study of data/information compiled by RBI from the banks. The study presents an analysis of trends in asset quality and credit management of banks in India based on the granular data. Further it draws some inferences about the quality of credit management in banks and how it has contributed to the recent trends in asset quality

Credit risk management is interlinked with the regulatory framework and in India the regulation at various stages has contributed to the present situation to become worse. Similarly the market forces have added fuel and accelerated the problem. Finally, this paper also focuses on identifying the suggestive ways for the regulators, policy makers, banks and bank customers to come out from this burning issue.

There is a need for Strategic approach to Credit Risk Management (CRM) in Indian Commercial Banks, particularly in view of;

- Higher NPAs level in comparison with global benchmark
- RBI's stipulation about dividend distribution by the banks
- Revised NPAs level and CAR norms
- New Basel Capital Accord (Basel –II) revolution

### **Evolution of NPA regulation in India:**

Until mid-eighties, the management of NPAs in India was left to the banks and the auditors. As

the need for fine tuning regulatory structures to deal with the changing risk-profile of banking was felt, in 1985, the first-ever system of classification of assets for the Indian banking system was introduced with the name of 'Health Code' system, this involved classification of advances into eight categories ranging from 1 (Satisfactory) to 8 (Bad and Doubtful Debts). A significant change in this evolution process in regulatory instructions came in April 1992 with the introduction of prudential norms on income recognition, asset classification and mathematical methods for the computation of provisioning requirements. A graded norm for NPA recognition was brought-in, beginning with a four quarter norm for classification of advances as non-performing. With the introduction of 90-day norm for classification of NPAs in 2001, the NPA guidelines were brought at par with international standards.

Even as the NPA classification norms were being gradually tightened to bring them at par with international standards, RBI also introduced guidelines on "restructuring of advances" during the early 1990s. The classification of advances as per the newly introduced "prudential norms" enabled a proper assessment of the extent level of non-performing assets in the Indian banking system for the first time. The initial figures for the NPAs in the system were quite high and hence, created sufficient incentive for the regulators and the banks alike to bring them down to manageable levels. Over time, as the banks introduced improvements in credit risk management systems and processes, the NPA ratios declined appreciably. Empirical evidence, thus, indicates that increased stringency in regulation facilitated reduction of NPAs. Table 1, presented below shows the trends in NPA since 1997.

**Table 1: Trends in Non-Performing Assets**

Period	Average GNPA (in per cent)	Average NNPA's (in per cent)
1997-2001	12.8	8.4
2001-2005	8.5	4.2
2005-2009	3.1	1.2
2009-2013	2.6	1.2
Mar 2013	3.4	1.7
Sep 2013	4.2	2.2

Source: RBI Reports

After the early 2000s, the pace of introduction of regulatory reforms slowed. Regulatory norms were not further tightened during the pre-crisis years which resulted in lowered credit standards and increased delinquencies. On the contrary, the norms were relaxed in some instances post the crisis. Some instances of flip-flop in regulation were also witnessed e.g. changes in norms with regard to usage of floating provisions, relaxation in norms for provisioning coverage ratio, delay in the introduction of dynamic provisioning coverage. Further, the 2008 special dispensation that permitted restructured accounts to be classified as standard has led to skewed incentives for banks/ borrowers to resort to restructuring to classify assets, even the unviable ones, in the standard category and report lower NPA levels.

### Trends in Asset Quality of Banks:

#### (I) Trends in NPA ratios

The introduction of prudential norms resulted in a significant rise in the NPA levels of banks during the early 1990s. Gross NPAs as a percentage of gross advances stood at 19.1 per cent as on March 1994. Thereafter, the ratio progressively declined during the period when the structural reforms were implemented and also through the "boom" years leading up to the global financial crisis. The historical trend in Gross and Net NPA ratios is presented in Annexure -1. The reduction in NPA levels could be attributed to several factors, including:

- Introduction of prudential norms for asset quality and other regulatory initiatives in the 1990s encouraged improved risk management in banks contributing to improvement in asset quality;
- As interest rates were falling, banks could generate substantial treasury profits which were utilized for writing off NPA accounts;
- Overall good performance of the economy and concomitant rise in credit growth;
- Abundant liquidity conditions;
- Increased restructuring, etc

After Global Financial Crisis in 2008, the NPA ratios started increasing, indicating a marked deterioration in asset quality of the banking system. A closer scrutiny of the asset quality, however, reveals considerable divergence between the performances of various bank groups.

Initially, the NPA levels of public sector banks (PSBs) and other bank groups displayed a divergent trend. While the Gross NPA (GNPA) ratio for PSBs stood at 74 per cent in 2003; for new private sector banks and foreign banks, the same was recorded at 14 and 4 per cent respectively. During 2003-06, the NPA ratios across all bank groups showed a secular declining trend. Early on in the crisis (during 2007-09), the NPA ratios decoupled - the GNPA ratio of new private sector banks and foreign banks increased sharply while they continued to decline in case of PSBs. In fact, foreign banks witnessed the highest spurt in NPAs during 2009. The trend, however, reversed after 2009, when NPAs rose significantly for PSBs, while it declined for other bank groups.

PSBs share a disproportionate and increasing burden in case of NPAs among the bank groups (i.e. share in gross NPAs as compared to share in advances). The share of PSBs in gross NPAs has increased over the last decade and particularly since 2009. PSBs NPAs accounted for 85 per cent of the NPAs of the banking system

in 2013 as compared to 75 per cent in 2003. During this period, the PSB's share in total bank credit increased only marginally, from 74 per cent to 76 per cent. This is in sharp contrast to the performance of the other segments of the banking system, especially the new private sector banks, whose share in NPAs has fallen from over 14 per cent in 2003 to 8 per cent in 2013. Table shown below gives the glimpse of the share of GNPA among bank groups from March-2003 to September-2013.

**Table2: Share of GNPA among Bank Groups (in per cent)**

Bank Group	Mar-03	Mar-07	Mar-08	Mar-09	Mar-13	Sep-13
PSBs	75.4	76.6	71.1	64.5	84.8	86.1
	(74.0)	(72.8)	(72.5)	(75.2)	(76.2)	(75.3)
Old Private Banks	6.2	5.9	4.6	4.5	2.8	2.8
	(6.2)	(4.7)	(4.5)	(4.3)	(4.6)	(5.0)
New Private Banks	14.2	12.5	18.7	20.3	8.0	6.8
	(12.8)	(16.2)	(16.4)	(15.0)	(14.8)	(14.7)
Foreign Banks	4.2	4.9	5.6	10.7	4.3	4.3
	(6.9)	(6.4)	(6.5)	(5.6)	(4.5)	(5.0)

Note: Figures in brackets represent the share in total bank credit

Source: RBI Reports

### Trends in Recovery & Write-offs of NPAs:

The gross and net NPA ratios alone do not reveal the actual dimension of problems of asset quality of banks. A 360-degree view of trends in asset quality requires the capture and analysis of more granular data – activity and segment wise - about the various aspects of NPA management viz., slippages, write offs, recoveries, up gradation, restructuring, etc. This helps in analyzing and improving the quality of internal credit management system.

Most of the Indian banks are writing offs their advances to reduce NPAs, which is a pointer to weaknesses in credit management. Write offs were initially introduced as a tool for banks to manage their tax liabilities on impaired assets. However, they subsequently emerged as a tool for banks to manage their reported gross NPA numbers. Write offs, in fact, contributed

significantly to the reduction in the quantum of gross NPAs (in some years, write offs accounted for nearly 50 per cent of reduction) as compared to actual recoveries and up gradations. Write offs as a percentage of terminal reduction (reduction on account of write-offs and actual recovery alone) has consistently been above 50 per cent mark over the last ten years period.

These practices clearly engender moral hazard issues as they reduce the banks' drive to improve recovery efforts. They also result in leakages in the recovery process. This is evidenced by the fact that, on an average, less than 10 per cent of the total amount written off (including the technical write off) is recovered. The following table clearly shows the trends of recovery from written off accounts and original write off of NPAs during the last ten years period.

**Table 3: Recovery from Written-Off Accounts during the fiscal year ended (Rs. mn)**

	Mar-04	Mar-05	Mar-06	Mar-07	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13
All Banks	10,650	17,680	29,020	24,000	31,010	36,080	43,020	50,030	51,090	69,000
PSBs	10,080	16,120	26,090	22,000	28,040	33,070	38,090	44,020	46,060	59,030
OPBs	260	450	840	1,320	1,730	2,170	2,070	2,310	2,010	2,000
NPBs	300	1,110	1,090	1,200	870	920	1,970	3,270	2,940	7,790
FBs	0	0	100	80	160	40	1,390	660	400	290

Source: RBI Reports

**Table 4: Write-Offs of NPAs during the Fiscal Year ended (Rs. mn)**

	Mar-04	Mar-05	Mar-06	Mar-07	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13
All Banks	13,550	10,820	11,650	11,620	16,530	15,990	25,010	23,890	20,890	32,210
	90	30	70	10	0	60	90	60	20	80

PSBs	11 3,0 80	80, 48 0	87, 99 0	91, 89 0	80 ,1 90	69, 66 0	11 1,8 50	17 7,9 40	15 5,5 10	27 0,1 30
OPBs	5,2 50	4,6 40	5,4 40	6,1 00	7, 24 0	6,1 60	8,8 40	6,8 20	6,7 10	8,6 30
NPBs	12, 86 0	16, 82 0	14, 09 0	12, 32 0	15 ,7 70	50, 63 0	67, 12 0	23, 36 0	30, 24 0	34, 87 0
FBs	4,4 00	6,2 80	9,0 50	5,9 00	13 ,3 40	33, 50 0	62, 38 0	30, 83 0	16, 46 0	8,5 50

Source: RBI Reports

Table presented above shows that, write off of all most all category of banks has been increasing during the period of observation. Even in the 'good' times, the ratio was never more than 20 per cent – a clear sign of poor standards of credit and recovery administration as well as a certain amount of apathy on the part of banks in expending efforts to revive accounts. The spirit of good credit management is to revive genuine problem accounts and not to retain them as NPAs for an eventual write- off.

The new private sector banks and foreign banks recorded higher slippage ratio immediately after crisis but were able to arrest the increasing trend in slippages through focused attention on credit risk management including exit strategies. In recent years, the ratio has risen sharply for PSBs. This indicates that new private sector banks and foreign banks were able to manage their asset quality better than PSBs as they were quick in identifying NPAs, while PSBs resorted to retrospective restructuring to report lower NPAs initially. This practice eventually tipped the scale against the PSBs and thus, in hindsight, regulatory guidelines also contributed to the decline in the asset quality of the PSBs. The data pertaining to the Bank slippage ratio for the last ten years is shown in Annexure -3.

The bank group wise trends in slippages are further re-enforced when the trends in slippages and fresh restructuring are examined. The ratio of slippages and fresh restructuring to advances rose sharply for the PSBs post crisis – from 5.2 per cent in March 2009 to 7.1 per cent in March 2013. The ratio reduced for foreign banks and

new private sector banks and stood at a much more robust 1.8 per cent in March 2013.

It is, thus, clear that the weaknesses in credit and recovery administration that existed prior to the crisis, especially in the case of PSBs, were not dealt with in a timely manner. The crisis only exacerbated the problem. It is also evident from the above trends that the gross NPA numbers, by themselves, are not a major cause for concern. Viewed in conjunction with the trends in restructuring of advances, however, there are evident and growing concerns about the asset quality of banks in India. In order to better understand the underlying issues, let me now turn to an analysis of the trends in restructuring of advances.

In fact, the divergence in the asset quality of different bank groups is even more pronounced if restructured standard assets and cumulative write offs are considered along with NPAs, than if gross NPAs are looked at in isolation. To further analyze this trend, It would be more appropriate to use a ratio namely "impaired assets ratio," which is a ratio of gross NPAs, restructured accounts and cumulative write offs to total advances. (Table-5). This is a more robust indicator of asset quality of banks. Between 2009 and 2013, this impaired assets ratio rose sharply from 6.8 per cent to 12.1 per cent in the case of PSBs. In contrast, the ratio fell for new private sector banks and foreign banks and stood at 5.3 per cent and 6.4 per cent respectively in March 2013. It is, thus, clear that a clear picture of asset quality across different bank groups can emerge only if restructured accounts and write offs are reckoned. Write offs create adverse incentives in the system and hinder recovery efforts in the bank.

**Table 5: Impaired Asset ratio**

Period	PSBs	Old Pvt. Banks	New Pvt. Banks	Foreign Banks
Mar-09	6.8	6.8	6.6	6.5
Mar-10	8.8	7.3	7.3	9.5
Mar-11	8.1	6.1	5.5	7.2
Mar-12	10.0	6.3	5.4	6.6
Mar-13	12.1	6.8	5.3	6.4

Source: RBI Reports

### Issues and Challenges of Credit Risk Management:

After a thorough exploration of the trends and various facets of the asset quality of banks, the following broad outcome can be drawn from the analysis.

**(a) Primitive Information Systems** –The evolution of information systems had not kept pace with the changing banking landscape. Improvements in information systems were not in keeping with the increase in asset size of banks and the increasing complexities in credit management. The lack of proper data on slippages, early indications of deterioration in asset quality, segment wise trends, etc., hampered timely detection of problem accounts and weakened banks' credit risk management capabilities. As a result, banks failed to identify the declining trends in asset quality in the pre-crisis period. An efficient database which provides timely information is an imperative for better credit management and imperative for the Top Management of banks for the early identification of problem accounts, trends in asset quality, etc.

**(b) Higher NPAs not only from the GDP slowdown** – Undoubtedly, the macro-economic environment has a significant influence on the asset quality of banks. However, a closer look at the trends in the growth rate of gross NPAs and in the slippages of Indian banks indicate that the

seeds of recent deterioration in asset quality had been sown well ahead of the slowdown in economic growth, i.e. in 2006-08 when most of the asset quality indicators reached their most robust levels. Therefore, the current decline in asset quality cannot be solely attributed to the decline in the country's macroeconomic performance. Besides, the deceleration in GDP growth rate, there are many other factors which are responsible for the current state of the asset quality of the banking system.

**(c) Lack of proper credit management** - The analysis reveals that increased NPAs may be on account of poor credit management systems in Indian banks. It is clear from the analysis that, credit monitoring was neglected and recovery efforts were undermined. Evidence suggests that the banks were not taking adequate cognizance of the build-up of leverage while sanctioning or renewing limits. In fact, banks' credit appraisal processes failed to differentiate between promoter's debt and equity and over time, promoters' equity contribution significantly declined and leverage increased. Further it also observed that, lack of adequate contingency planning, especially for mitigating project risks is also a reason for soaring bad assets of the banks. Banks definitely need to factor in such adverse situations and have a back-up/contingency plan in their appraisal process.

**(d) Sub-optimal credit management in PSBs** – weaknesses in credit management were significantly more pronounced in PSBs. It is the fact that the economic downturn is not the sole reason for recent deterioration in the asset quality of banks as all bank groups were not affected to the same extent. PSBs suffer from some structural deficiencies related to the management and governance arrangements. The private sector and foreign banks, on the other hand, were quick to identify the early threats posed by the slowdown and effectively managed them.

### How resilient the system?

The first and foremost comforting factor is that the Indian banking system had faced much more

challenging times in the past in so far as the NPA ratios are concerned. In fact, in March 1994, the NPA levels were much higher than the present level. The aggregate banking system GNPA ratio was 19 per cent in March 1994 and for PSBs was 21 per cent. Against that benchmark, the current position of NPAs in the banking sector is not alarming. In March 2013, the GNPA ratio was 3.4 per cent for banking system and 3.6 per cent for PSBs.

According to a latest study, Indian banking sector, which has witnessed an upsurge in non-performing assets (NPAs) for past few years, could see further deterioration with gross NPAs expected to touch 5 percent by the end of March 2014. Sluggish economic growth and high interest rates are being touted as primary drivers for rising bad loans. Iron & steel and infrastructure sectors are the largest contributor to NPAs of the public sector banks. Besides, aviation, textiles and mining are also adding to the stressed assets. These five sectors together contribute around 24 per cent of total advances of all banks, and account for around 51 per cent of their total stressed advances at the end of September, 2013.

The relatively lower level of provision coverage ratio (PCR) of banks in India as compared to their global peers is a weak spot in an otherwise fairly resilient Indian banking system. The PCR presents a more dismal picture when restructured standard advances are also considered, as it stood at just 30 per cent in March 2013 down from 35 per cent in March 2009. Hence, it is essential the banks increase their provision cover from current levels and strengthen their balance sheets.

Thus, on the whole while the banks will be able to withstand the present deterioration in asset quality, the rise in slippages and the quantum of restructuring coupled with low PCR levels is a source of worry and over a period of time the situation could pose grater concerns especially if timely corrective actions are not taken.

#### **Measure to overcome the Issues:**

#### **a) Review of NPAs:**

In the short run, an immediate review of the accounts classified as NPAs and those which have been 'restructured' needs to be taken up. It would be critical to assess the viability or otherwise of these accounts on a case-to-case basis. The accounts which are found viable would need to be supported through additional finance/other means in order to ensure turnaround while those found unviable should be taken up for prompt recovery/resolution, so that the loss given default of banks could be minimized.

All unviable accounts should be put under time-bound asset recovery drive, sale of assets to ARCs to protect the loss in economic value of the assets. Another option which needs to be explored in such cases is management/ownership restructuring and permitting banks to takeover units where promoters' equity is low or non-existent.

#### **b) Improved credit risk management**

The first line of defense against deterioration in asset quality of banks is the bank's own credit risk management. If the asset quality profile of the banking system needs to be improved on a sustained basis, then sound and robust credit risk management system needs to be in place in the banks. Credit risk management comprises of different facets like credit appraisal, credit monitoring, efficient system of fixing accountability, etc

#### **c) Address corporate governance issues in PSBs:**

There are some inherent structural weaknesses in the corporate governance arrangements in PSBs. These will need to be addressed through a slew of measures such as explicit 'fit and proper' criteria for appointment of top executives, instituting a system of an open, market-wide search for Chairman/ other top executives, review of the role of RBI / government nominee on the Board of PSBs, fixation of tenure of top executives of banks so as to ensure a sufficiently

long tenure, market based remuneration for top executives, review of the incentive structure for the executives, greater accountability of the executives and of the Board, etc.

**d) Improved information systems:**

Information systems form the bedrock of credit risk management. Unless the risks are identified, it will not be possible to manage them. Any robust management system necessarily hinges on a strong information base. Efforts should be made to capture more exhaustive and granular data. The information system must enable timely detection of problem accounts. An appropriate coordinating mechanism across departments within a bank and across banks must be developed. Most importantly, the information system of banks should be integrated into decision making, capital planning, business strategies, and reviewing achievements.

**e) Strong Regulatory Framework:**

The policy makers need to take a re-look at the extant regulatory framework for stressed assets. A thorough relook at the overall regulatory approach in the country is warranted. Regulations should be facilitative, practical and commensurate with the risks involved. One of the key areas where regulatory prescription needs realignment is that of restructuring. Global practices warrant that restructured accounts should be treated as non-performing. This is a practice which needs to be adopted in India as well keeping in view the extant realities.

It is also suggested that simple rephrasing, rescheduling, refinancing, extension of tenure of loans should not be treated as restructured. Similarly, an account should not be treated as restructured if there is a no sacrifice involved on the part of the bank and the bank is satisfied about the realizable value of the collateral. Further, the accounts in respect of which interest is being serviced regularly should not be classified as an NPA. Further, there is a need to increase provisioning requirements in line with international norms to ensure the resilience of the banking system.

**f) Reforming legal & institutional structures:**

There is high time to reform legal and institutional structures for ensuring the asset quality of banks. The prominent mechanism in this direction is that, the Corporate Debt Restructuring (CDRs) which are aimed at rehabilitating viable but temporarily distressed corporate advances. On the other end are mechanisms such as the Debt Recovery Tribunals (DRTs) and the SARFAESI Act which provide a legal framework for dealing with unviable borrowings. In addition there are Asset Reconstruction Companies (ARCs) which facilitate improved credit risk management by banks by sale of problem loans and creation of a secondary market for such loans.

Economic slowdown and global meltdown are not the primary reason for creation of stressed assets. In fact, the deficiencies in credit and recovery administration in the system involving banks, borrowers, policy makers, regulators and legal system have led to the present state of affairs. Credit quality has a high positive correlation with the prudential norms and regulations prescribed by RBI.

Appraisal standards are lax for bigger loans both at the time of sanction as also restructuring while the banks tend to be very stringent for smaller borrowers. Also, restructuring and write off processes are highly biased towards bigger loans as compared to smaller loans, even though, the data suggests that credit risk is higher for big-ticket advances than small borrower. Banks need to be more sympathetic to small borrowers and be more stringent in their approach to big borrowers. Banks following the process of recognizing NPAs quickly and more aggressively are able to better manage their asset quality

**Conclusion:**

Credit Risk Management in today's deregulated market is a big challenge for the entire banking industry. Credit risk has a direct impact on banks' profitability. It is observed that the Basel III capital requirements are likely to have the

highest impact on profitability of the Indian banking sector followed by the revised guidelines on Priority Sector Lending (PSL). Further, higher provisioning norms for restructured assets have major impact on bank's profitability. Regulatory forbearance is not a panacea for the ills that afflict the credit management environment in the banking sector. The Indian banks should learn from their past mistakes and move forward for establishment of an effective credit management system. For this journey to be successful, the banks would need to strengthen their credit appraisal standards and lay greater focus on the quantum of equity brought in by the promoters, the sources of equity and plan for contingency situations in case of large infrastructure projects.

There are many causes which are responsible for accumulation of NPAs like faulty credit management, lack of professionalism in the workforce, unscientific repayment schedule, mis-utilisation of loans by borrower, lack of timely legal solution to cases, political interference at local levels and waiver of loans by government etc. In this juncture it is better to adopt a two-pronged strategy to control the growing bad loans is required. The strategic action plan to focus on NPAs is to be adopted and turnaround specialists are to be hired to monitor restructured loans to avoid any slippages and to improve the cash flows.

Further, some concrete steps like careful examination of existing NPAs for determining further course of action - rehabilitation or recovery, would need to be taken in the short term. Accounts identified as viable will need to be quickly rehabilitated with support from the bank and the borrower including through infusion of new equity from new promoters. Above all, a robust accountability mechanism for all levels of hierarchy in the stakeholders i.e., banks, borrowers, regulators, policy makers and the government at large will have to be put in place to ensure that banks' asset quality improves on a sustained basis. Finally it is concluded that the whole-hearted efforts from all corners are required to come out of the present crisis and are able to become the banks of the future. A quick

and determined action is the need of the hour in this direction.

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#### Annexure - 1

Bank Group wise Gross NPA Ratio and Net NPA Ratio(in percent)					
	All Banks	PSBs	OPBs	NPBs	FBs

FY Ended	GNPA	NNPA	GNPA	NNPA	GNPA	NNPA	GNPA	NNPA	GNPA	NNPA
Mar-01	11.1	6.3	12.0	5.5	11.9	6.7	5.4	3.2	6.7	1.7
Mar-02	10.4	5.5	11.1	4.5	11.1	7.1	8.9	5.0	5.5	1.9
Mar-03	9.1	4.4	9.4	3.7	8.9	5.4	10.0	4.7	5.3	1.8
Mar-04	7.2	2.8	7.8	2.8	7.6	3.8	5.0	2.4	4.8	1.5
Mar-05	4.9	2.0	5.4	2.0	6.0	2.7	2.9	1.5	3.0	0.9
Mar-06	3.3	1.2	3.7	1.4	4.4	1.7	1.7	0.8	2.1	0.8
Mar-07	2.5	1.0	2.7	1.1	3.1	1.0	1.9	1.0	1.9	0.7
Mar-08	2.3	1.0	2.2	1.0	2.3	0.7	2.5	1.2	1.9	0.8
Mar-09	2.3	1.1	2.0	0.8	2.4	0.9	3.1	1.4	4.3	1.8
Mar-10	2.4	1.1	2.2	0.8	2.3	0.8	2.9	1.1	4.3	1.8
Mar-11	2.3	1.0	2.2	0.8	2.0	0.6	2.3	0.6	2.5	0.7
Mar-12	2.8	1.3	3.0	0.9	1.8	0.6	1.9	0.4	2.7	0.6
Mar-13	3.2	1.6	3.6	1.0	1.9	0.8	1.5	0.5	3.0	1.0

PSBs: Public Sector Banks; OPBs: Old Private Sector Banks; NPBs: New Private Sector Banks; FBs: Foreign Banks.  
Source: RBI Report

## Annexure – 2

Slippages in the banking system (Rs in Crore)				
FY Ended	NPA at the beginning of year	New Accretion to NPAs during the year	Reduction in NPAs during the year	NPA at the end of the year
Mar-01	60434	19064	15512	63986
Mar-02	63986	24606	17638	70954
Mar-03	70954	21556	23729	68781
Mar-04	68781	24191	28074	64897
Mar-05	64897	21552	27740	58709
Mar-06	58709	21471	28981	51199
Mar-07	51199	26632	27318	50513
Mar-08	50513	34621	28612	56522
Mar-09	56522	53133	40362	69293
Mar-10	69293	65162	49794	84661
Mar-11	84661	69598	56338	97920
Mar-12	97920	106740	62606	142054
Mar-13	142054	136446	85301	193200

Source: RBI Reports

## Annexure – 3

Bank Group wise Slippage Ratios ( in Percent )	
Slippage Ratio	

FY Ended	All Banks	PSBs	OPBs	NPBs	FBs
Mar-01	4.6	4.7	5.5	4.4	3.3
Mar-02	5.1	4.1	4.9	20.5	2.7
Mar-03	3.7	3.6	3.8	3.9	3.5
Mar-04	3.4	3.5	3.2	3.7	2.7
Mar-05	2.5	2.5	2.2	3.4	1.8
Mar-06	1.9	2.0	1.8	1.7	1.5
Mar-07	1.8	1.8	1.8	2.0	1.5
Mar-08	1.8	1.7	1.4	2.1	2.1
Mar-09	2.2	1.8	1.9	3.0	5.5
Mar-10	2.2	2.0	2.2	2.0	5.5
Mar-11	2.1	2.2	1.7	1.3	2.2
Mar-12	2.5	2.8	1.5	1.1	2.3
Mar-13	2.7	3.1	1.8	1.2	1.8

Source: RBI Reports: (Slippage ratio = fresh accretion to NPAs during the year to standard advances at the beginning of the year)

## Annexure – 4

Bank Group-wise share in GNPA									
FY Ended	All Banks	PSBs		OPBs		NPBs		FBs	
	GNPA (Rs. in Cr)	GNPA (Rs. in Cr)	% to Total GNPA s (2/1)	GNPA (Rs. in Cr)	% to Total GNPA s (4/1)	GNPA (Rs. in Cr)	% to Total GNPA s (6/1)	GNPA (Rs. in Cr)	% to Total GNPA s (8/1)
	1	2	3	4	5	6	7	8	9
Mar-02	70,954	56,507	79.6	4,635	6.5	7,032	9.9	2,780	3.9
Mar-03	68,781	54,089	75.4	4,308	6.2	7,490	14.2	2,894	4.2
Mar-04	64,897	51,541	79.4	4,392	6.8	5,951	9.2	3,013	4.6
Mar-05	58,709	47,622	81.1	4,201	7.2	4,566	7.8	2,321	4.0
Mar-06	51,199	41,371	80.8	3,740	7.3	4,032	7.9	2,057	4.0
Mar-07	50,513	38,855	76.6	2,969	5.9	6,271	12.5	2,419	4.9
Mar-08	56,522	40,457	71.1	2,557	4.6	10,428	18.8	3,080	5.6
Mar-09	69,293	45,028	64.5	3,072	4.5	13,900	20.3	7,293	10.7
Mar-10	84,661	59,927	70.8	3,622	4.3	13,985	16.5	7,126	8.4
Mar-11	97,920	74,668	76.3	3,695	3.8	14,495	14.8	5,061	5.2
Mar-12	142,054	117,269	82.6	4,200	3.0	14,297	10.1	6,288	4.4
Mar-13	193,200	164,468	84.8	5,210	2.8	15,552	8.0	7,970	4.3

Source: RBI Reports

## ROLE OF BANKS IN FINANCIAL INCLUSION – SOME POLICY INITIATIVES

DR. K. RAJIREDDY  
K. VENKATESH SATYA

**Abstract:** Banking services are essentially for welfare of the public. It is imperative that providing access to basic banking services is the first phase of the financial inclusion process. The focus on banks as the principal vehicle for financial inclusion also stems from the fact that only they can offer the entire suite of products that would facilitate meaningful financial inclusion. The Financial Inclusion can help the society and the economy in the form of increase in savings, investment and thereby, spurs the processes of economic growth. It also provides a platform for inculcating the habit of saving money amongst the lower income category. Presence of banking services and products provide a critical tool to inculcate the savings habit. It also creates avenues of formal credit to the unbanked population who are otherwise dependent on informal channels of credit like family, friends and moneylenders. Availability of timely, adequate and transparent credit from formal banking channels will allow the entrepreneurial spirit of the masses to increase outputs and prosperity in the country side.

Financial Inclusion has the potential to bring in the unbanked masses into the formal banking system, channelize their savings, stoke their entrepreneurial ambitions by making available credit and thus give a fillip to the economy. Financial exclusion remains a major issue to the banking sector. Banks should think of designing a process response to the problem, drawing on the experiences and practices of the traditional lenders to the unorganized sector. The banks have encountered various problems while adopting financial inclusion Viz. improper repayment, need for additional workforce, more time consumption, heavy work load, high cost etc. The main objectives of this study are to analyze the role of Indian Banks in financial inclusion and to examine the institutional mechanism adopted by Indian Banks for achieving financial inclusion, and also analyze the measures taken by banks for enhancing financial inclusion programs to the excluded segment.

**Key Words:** *Financial Inclusion, banking services, formal banking system, Entrepreneurial spirit*

### Introduction

Poverty and exclusion continue to dominate socio-economic and political discourse in India as they have done over the last six decades in the post-independence period. Poverty reduction has been an important goal of development policy since the inception of planning in India. Various anti-poverty, employment generation and basic services programs have been in operation for decades in India. The ongoing reforms attach great importance to removal of poverty and addressing the wide variations across states and the rural-urban divide. Though the Indian economy recorded impressive growth rates until recently, its impact has sadly not

Fully percolated to the lowest declines. Despite being one of the ten fastest growing economies of the world, India is still home to one-third of the world's poor.

In developing economies like India, the banks, as mobilizers of savings and allocators of credit for production and investment, have a very critical role. As a financial intermediary, the banks contribute to the economic growth of the country by identifying the entrepreneurs with the best chances of successfully initiating new commercial activities and allocating credit to them. At a minimum, all retail commercial banks also provide remittance facilities and other payment related products. Thus,

inherently, the banking sector possesses a tremendous potential to act as an agent of change and ensure redistribution of wealth in the society.

However, the number of people with access to the products and services offered by the banking system continues to be very limited even years after introduction of inclusive banking initiatives in the country through measures such as the cooperative movement, nationalization of banks, creation of regional rural banks, etc. Over the past few years, banking sector in India, as has resolutely pursued the agenda of financial inclusion and achieved discernible progress in improving access to financial services for the masses. According to the World Bank survey findings, only 35% of Indian adults had access to a formal bank account and 8% borrowed formally in the last 12 months. Only 2% of adults used an account to receive money from a family member living in another area and 4% used an account to receive payment from the Government. The miniscule numbers suggest a crying need for a further push to the financial inclusion agenda to ensure that the people at the bottom of the pyramid join the formal financial system, reap benefits and improve their financial well-being.

The importance of financial inclusion has been emphatically underlined in the wake of the financial crisis. As a matter of fact, the crisis has had a significant negative impact on lives of individuals globally. Millions of people have lost their livelihoods, their homes and savings. One of the prominent reasons for the crisis was that the financial system was focused on furthering its own interests and lost its link to the real sector and with the society at large. The crisis also resulted in a realization that free market forces do not always result in greater efficiency in the financial system, particularly while protecting the interests of the vulnerable sections of society. In wake of the Crisis, Financial Inclusion has emerged as a policy imperative for inclusive growth in several countries across the globe.

However, only a little attention has been paid to Financial Inclusion in India, the actual progress has remained far from satisfactory. The main objectives of this study are to analyze the role of Indian Banks in financial inclusion and to examine the institutional mechanism adopted by Indian Banks for achieving financial inclusion, and also analyze the measures taken by banks for enhancing financial inclusion programs to the excluded segment.

### **Objectives of Financial Inclusion**

RBI has defined Financial Inclusion as the *“process of ensuring access to appropriate financial products and services needed by all sections of the society in general and vulnerable groups such as weaker sections and low income groups in particular, at an affordable cost in a fair and transparent manner by regulated, main stream institutional players”*. It considers Financial Inclusion and Financial Literacy as twin pillars where Financial Inclusion acts on the supply side i.e. for creating access and financial literacy acts from the demand side i.e. creating a demand for the financial products and services.

The Financial Inclusion can help the society and the economy in a broader way. It leads to increase in savings, investment and thereby, spurs the processes of economic growth. It also provides a platform for inculcating the habit of saving money, especially amongst the lower income category that has been living under the constant shadow of financial duress, mainly because of absence of savings, which makes them a vulnerable lot. Presence of banking services and products aimed to provide a critical tool to inculcate the savings habit. It also creates avenues of formal credit to the unbanked population who are otherwise dependent on informal channels of credit like family, friends and moneylenders. Availability of timely, adequate and transparent credit from formal banking channels will allow the entrepreneurial spirit of the masses to increase outputs and prosper it in the country side. It

will open the doors of formal remittance facilities to the low income and unbanked populace who, presently, are forced to use all kinds of informal and costly ways of sending money from one place to another. As we all know, Financial Inclusion has now been viewed as a remedy to plug gaps and leaks in distribution of government benefits and subsidies through direct benefit transfers to beneficiaries' bank accounts rather than through subsidizing products and making cash payments. Thus, on the whole, Financial Inclusion has the potential to bring in the unbanked masses into the formal banking system, channelize their savings, stoke their entrepreneurial ambitions by making available credit and thus give a fillip to the economy.

### Approach to Financial Inclusion

The RBI's is following a structured, planned and integrated approach towards FI by focusing on both the demand and supply side constraints. Some of the defining features of FI are:

- As a philosophy, RBI always encourages banks to pursue FI as a commercial activity and to not view it as a social service or charity. The self-sustainability and commercial viability of the FI initiatives are important if banks have to scale up their operations to cover more unbanked areas.
- Banks are encouraged to leverage technology to attain greater reach and penetration while keeping the cost of providing financial services to the minimum.
- Banks are adopting innovative business models and delivery channels to expand their FI efforts. There is a need for banks to develop new products and design new delivery models that are customized to the unique needs of the financially excluded population, both in the rural and urban areas.
- 

Considering that financial literacy is an important adjunct for promoting financial inclusion, consumer protection and ultimately financial stability, RBI has adopted an integrated approach wherein efforts towards Financial Inclusion and Financial Literacy would go hand in hand. Besides the various initiatives taken by RBI individually to encourage financial literacy, a *National Strategy for Financial Education* (NSFE) has also been finalized under the aegis of the Financial Stability and Development Council (FSDC) to coordinate efforts of various stakeholders involved in this process.

- The Reserve Bank has been playing a supportive role in FI by creating a conducive regulatory environment and providing institutional support to banks in their efforts. Importantly, we have provided banks the freedom and the space to determine their own strategies for rolling out FI and have encouraged them to identify their own goals and targets through their respective Financial Inclusion Plans.

### Robust Institutional Mechanism

RBI has created an institutional mechanism to support the rollout of banking services across the country. This was essential considering the enormity of the task in terms of the number of excluded people and the geographical size of the country.

- India is one country where the FSDC has a specific mandate for financial inclusion and financial literacy. There is a separate Technical Group on Financial Inclusion and Financial Literacy under the aegis of FSDC with representation from all the financial sector regulators.
- In order to spearhead efforts towards greater financial inclusion, RBI has constituted a Financial Inclusion Advisory Committee (FIAC) under the

Chairmanship of a Deputy Governor from RBI. The FIAC has few Directors from the Central Board of RBI and experts drawn from NGO sector/other civil society representatives, etc. as members. The collective expertise and experience of the members is expected to be leveraged to explore issues such as developing via bland sustainable banking services delivery models focusing on accessible and affordable financial services, developing products and processes for rural as well as urban unbanked consumers.

- At the state level, we have State Level Bankers Committees (SLBC) in all the states. Going further down, we have Lead District Managers in all the 659 districts, with recent inclusion of the metropolitan areas into the Lead Banks Scheme.

About 700 financial literacy centres have been set up by banks. There are Rural Self-Employment Training Institutes (R-SETI), working towards capacity building for taking up self-employment ventures.

### **RBI's Policy Initiatives of Oster Financial Inclusion**

Following are some of the supporting policy initiatives that RBI has taken to further the Financial Inclusion in the country.

#### **(a) Reach**

##### **(i) Branch expansion in rural areas**

Branch authorization has been relaxed to the extent that banks do not require prior permission to open branches in centers with population less than 1 lakh, which is subject to reporting. To further step up the opening of branches in rural areas, banks have been mandated to

open at least 25 per cent of their new branches in unbanked rural centers.

In the Annual Policy Statement for 2013-14, banks have been advised to consider frontloading (prioritizing) the opening of branches in unbanked rural centers over a three year cycle co-terminus with their FIPs. This is expected to facilitate the branch expansion in unbanked rural centers.

#### **(ii) Agent Banking - Business Correspondent/ Business Facilitator Model**

In January 2006, the Reserve Bank permitted banks to utilize the services of intermediaries in providing banking services through the use of business facilitators and business correspondents. The BC model allows banks to do 'cash in - cash out' transactions at a location much closer to the rural population, thus addressing the last mile problem.

#### **(iii) Combination of Branch and BC Structure to deliver Financial Inclusion**

The idea is to have a combination of physical branch network and BCs for extending financial inclusion, especially in geographically dispersed areas. To ensure increased banking penetration and control over operations of BCs, banks have been advised to establish low cost branches in the form of intermediate brick and mortar structures in rural centers between the present base branch and BC locations, so as to provide support to a cluster of BCs (about 8-10 BCs) at a reasonable distance of about 3-4 kilometers.

#### **(b) Access**

##### **Relaxed KYC norms**

- Know Your Customer (KYC) requirements have been simplified to such an extent that small accounts

can be opened with self-certification in the presence of bank officials.

- RBI has allowed 'Aadhaar' to be used as one of the eligible documents for meeting the KYC requirement for opening a bank account.

### **Roadmap for Banking Services in unbanked Villages**

• In the first phase, banks were advised to draw up a road map for providing banking services in every village having a population of over 2,000 by March, 2010. Banks have successfully met this target and have covered **74398** unbanked villages.

• In the second phase, Roadmap has been prepared for covering remaining unbanked villages i.e. With population less than 2000 in a time bound manner. About 4, 90,000 unbanked villages with less than 2000 population across the country have been identified and allotted to various banks. The idea behind allocating villages to banks was to ensure availability of at least one banking outlet in each village.

### **(c) Products**

#### **Bouquet of Financial services:**

In order to ensure that all the financial needs of the customers are met, we have advised banks to offer minimum of four basic products, viz.

- A savings cum overdraft account
- A pure savings account, ideally a recurring or variable recurring deposit
- A remittance product of facilitate EBT and other remittances, and
- Entrepreneurial credit products like a General Purpose Credit Card (GCC) or a Kisan Credit Card (KCC)

### **(d) Transactions**

### **Direct Benefit Transfer:**

The recent introduction of direct benefit transfer, leveraging the Aadhaar platform, will help facilitate delivery of social welfare benefits by direct credit to the bank accounts of beneficiaries. The government, in future, has plans to route all social security payments through the banking network, using the Aadhaar based platform as a unique identifier of beneficiaries. In order to ensure smooth roll out of the Government's Direct Benefit Transfer (DBT) initiative, banks have been advised to:

Open accounts of all eligible individuals in camp mode with the support of local Government authorities. Seed the existing and new accounts with Aadhaar numbers. Put in place an effective mechanism to monitor and review the progress in implementation of DBT.

### **Financial Inclusion Plan of banks for the period of 2010-13:**

We have encouraged banks to adopt a structured and planned approach to financial inclusion with commitment at the highest levels, through preparation of Board approved Financial Inclusion Plans (FIPs). The first phase of FIPs was implemented over the period 2010-2013. The Reserve Bank has sought to use the FIPs as the basis for FI initiatives at the bank level. RBI has put in place a structured, comprehensive monitoring mechanism for evaluating banks' performance against their FIP plans. Annual review meetings are being held with CMDs of banks to ensure top management support and commitment to the FI process.

A snap shot of the progress made by bank under the FIPs (April 10–March 13) for key parameters, during the three year period is as under:

- Nearly 2,68,000 banking outlets have been setup in villages as on March 13 as against 67,694 banking outlets in villages in March 2010. About 7400 rural branches opened during this period
- Nearly 109 million Basic Savings Bank Deposit Accounts (BSBDAs) have been added, taking the total no. of BSBDAs to 182 million. Share of ICT based accounts have increased substantially– Percentage of ICT accounts to total BSBDAs has increased from 25% in March 10 to 45% in March 13
- With the addition of nearly 9.48 million **farm sector households** during this period, 33.8 million Households have been provided with small entrepreneurial credit as at the end of March 2013
- With the addition of nearly 2.25 million **nonfarm sector households** during this period, 3.6 million households have been provided with small entrepreneurial credit as at the end of March 2013.
- About 4904 lakh transactions have been carried out in ICT based accounts through BCs during the three year period

In order to continue with the process of ensuring access to banking services to the excluded, banks have now been advised to draw up a fresh 3 year Financial Inclusion Plan for the period 2013-16. Banks have also been advised that the FIP prepared by them are disaggregated and percolated down up to the branch level. The disaggregation of the plans is being done with a view to ensure involvement of bank staff across the hierarchy, in the field and also to ensure uniformity in the reporting structure under the Financial Inclusion Plan. The focus is also now more on the volume of transactions in new accounts opened as a part of the financial inclusion drive.

### Challenges and Way Forward:

The current policy objective of inclusive growth with financial stability cannot be achieved without ensuring universal financial inclusion. Our experiences suggest that the banks alone will not be able to achieve this unless an entire support system partners them in this mission. Only the support of policy makers, regulators, governments, IT solution providers, media and the public at large can bring about a decisive metamorphosis in our journey towards universal financial inclusion.

Financial Inclusion of the unbanked masses is expected to unleash the hugely untapped potential of the sections of the society that constitute the bottom of the pyramid. However, in pursuing the FI mission, the normal banking model has been found wanting in terms of cost, scalability, convenience, reliability, flexibility and continuity. To ensure that the banks give adequate attention to financial inclusion, they must view this as a viable business proposition rather than as a corporate social responsibility or a regulatory obligation. For the business to remain viable it would be important to focus on increasing usage of existing banking infrastructure which would happen only if the banks can offer an entire bouquet of products and services to the holders of the large number of basic bank accounts opened during the last three years as also to the new customers that the banks acquire.

The Reserve Bank has sought to play a supportive role in FI by creating a conducive regulatory environment and providing institutional support to banks in their FI efforts. For achieving the financial inclusion the banks should focus on the following issues:

#### (a) Increasing Reach

- Ensuring coverage of all unbanked villages in next 3 years
- Emphasis on increasing rural branches
- Opening of bank accounts for all eligible individuals

#### (b) Increasing transactions

- Leveraging on DBT
- Delivery of credit products through BCs
- Hassle free Emergency credit (In built OD)

#### (c) HR Structure

- Banks to review HR policy in view of FI requirements
- Examining appointing of a separate cadre of staff for cost optimization

#### (d) Fine-tuning the BC Model

- Stabilizing the BC delivery model
- Encouraging innovations in remittances model
- Review of Cash Management for BC operations

#### (e) Spreading Financial Literacy

- Implementing National Strategy for Financial Education
- Creating Dedicated Website- Inclusion in School Curriculum
- Organizing Financial Literacy Camps

#### Conclusion:

Financial Inclusion is the process of ensuring access to appropriate financial products and services needed by all sections of the society in general and vulnerable groups such as weaker sections and low income groups in particular at an affordable cost. The collaborative approach can definitely help in successfully overcoming the present challenge. Though

it is expected that commercial banks would play a significant role in ensuring financial inclusion and promoting financial literacy, it is emphasized that the banks alone would not be able to achieve this ambitious goal and that others take holder groups also need to contribute their mite towards this cause. For banks, the focus has to be on building a sustainable, scalable and cost-efficient business delivery model by leveraging IT technology. The banks should develop an environment that facilitates access to credit through funding and grants to MFIs.

Finally it can be concluded that, financial inclusion and inclusive growth are no longer just policy choices, but are policy imperatives, which would determine the long-term financial stability and sustainability of the economic and social order.

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Number of ATMs in the country as on 31st March, 2013	Rural	Semi-Urban	Urban	Metropolitan	Total
Public Sector Banks	8552	18445	22518	20137	69652
Old Private Sector Banks	768	2760	2354	1684	7566
New Private Sector Banks	2214	6484	10995	15842	35535
Foreign Banks	30	21	244	966	1261
<b>Total</b>	<b>11564</b>	<b>27710</b>	<b>36111</b>	<b>38629</b>	<b>114014</b>

### DR. K. RAJIREDDY

Assistant Professor, Department of Commerce & Business Management  
KAKATIYA UNIVERSITY, Warangal, (A.P)

### K. VENKATESH SATYA

Research Scholar, Department of Commerce & Business Management  
KAKATIYA UNIVERSITY, Warangal, (A.P)

### Annexure - 3

### Annexure – 1

No	Particulars	Year ended March 10	Year ended March 11	Year ended March 12	Year ended March 13	Progress April 10-March 13
1	Banking Outlets- Rural Branches	33378	34811	3747	4084	74
2	Banking Outlets-BCs	34174	80802	141136	221341	1871
3	Banking Outlets- Other Modes	14	5951	31	8424	82
4	Banking Outlets- TOTAL	67694	116208	181753	270610	2029
5	Urban Locations covered through BCs	44	3771	58	2712	2667
6	BSBD Accounts (No. in lakh)	734.53	1047.59	1385.04	1833.30	1098.7
7	OD facility availed in BSBD Accounts (No. in lakh)	1	6.06	27.0	39.42	37.7
8	KCCs (No. in lakh)	243.07	271.12	302.35	337.87	82
9	GCC (No. in lakh)	13.87	16.99	21.0	36.29	22
10	BC-ICT Accounts (No. in lakh)	132.65	316.30	573.01	810.38	677
11	ICT Accounts-BC- Total Transactions (No. in lakh)	265.15	841.64	1410.93	2546.51	4798

No. of branches of Scheduled Commercial Banks as on 31st March, 2013:					
Bank Group	Rural	Semi-Urban	Urban	Metropolitan	Total
Public Sector Banks	23286	18854	14649	13632	70421
Private Sector Banks	1937	5128	3722	3797	14584
Foreign Banks	8	9	65	249	331
Regional Rural Banks	12722	3228	891	166	17007
<b>Total</b>	<b>37953</b>	<b>27219</b>	<b>19327</b>	<b>17844</b>	<b>102343</b>

### Annexure – 2

## Challenges and Opportunities In Retail Banking

**DR. SRINIVASA RAO\***

**Abstract :** Retail banking in India has fast emerged as one of the major drivers of the overall banking industry and has witnessed enormous growth in the recent past. The Retail Banking Report encompasses extensive study & analysis of this rapidly growing sector. It primarily covers analysis of the present status, current trends, major issues & challenges in the growth of the retail banking sector. This report helps in Banks, financial institutions, MNC Banks, academicians, consultants and researchers to have a better understanding of the booming opportunities in retail banking in India. A RB is a bank that works with consumers, otherwise known as 'retail customers'. Retail banks provide basic banking services to the general public, including: Checking and savings accounts, CDs, Safe deposit boxes, Mortgages and, Auto loans, Unsecured and revolving loans such as credit cards

Retail banks are the banks you most often see in cities on crowded intersections, the ones you probably use for your personal checking account.

In addition to helping consumers, retail banks often serve businesses as well - so they can also serve as commercial banks.

**KEY WORDS:** Banking, Challenges, Opportunities, Retail Banking.

### INTRODUCTION

Marketing by service industries are yet to gain momentum, especially when it comes to marketing by commercial banks. In India, the liberalization of the financial sector has impelled all the players to redefine what business they are in and strategically think how to stay ahead in the existing business. Marketing orientation of Banks is imperative for survival and success.

### Marketing of financial services by banks

is under active and extensive discussion among academicians and bank personnel. Survey and research have been conducted both by academic researchers and practitioners on the various aspects of services marketing in general and financial services marketing by banks in particular both in India as well as abroad.

### REVIEW OF LITERATURE

Bill Stephenson and Julia Kiely (1991) researched into the key issues facing banks in order to become better at selling in the personal banking market. The results indicate that the radical change in management style, training, motivation and recognition of branch sales personnel is called for. Developing a true sales culture

Requires major alterations to management structure and style, and is most likely to be successfully achieved by 'top-down' target setting based on corporate business objective.

James F Devlin (1995) studied the developments in the distribution of retail banking services in the UK, using the case study of First Direct, a subsidiary of Midland Bank that successfully introduced telephone-banking service. It was found that in an increasingly competitive and deregulated environment, superior distribution strategies concerned with how to communicate with, and deliver products to the consumer could provide institutions with significant competitive advantage in the market place."

#### **OBJECTIVES OF THE STUDY**

1. To know the changing scenario of Indian Retail Banking

2. To portray the rivalry sandwiched between local and overseas banks

3. To spot the challenges and opportunities intended for Retail Banking

With a jump in the Indian economy from a manufacturing sector, that never really took off, to a nascent service sector, Banking as a whole is undergoing a change. A larger option for the consumer is getting translated into a larger demand for financial products and customization of services is fast becoming the norm than a competitive advantage. With the Retail banking sector expected to grow at a rate of 30% [Chanda Kochhar, ED, ICICI Bank] players are focusing more and more on the Retail and are waking up to the potential of this sector of banking. At the same time, the banking sector as a whole is seeing structural changes in regulatory frameworks and securitization and stringent NPA norms expected to be in place by 2004 means the faster one adapts to these changing dynamics, the faster is one expected to gain the advantage. In this article, we try to study the reasons behind the euphemism regarding the Retail-focus of the Indian banks and try to assess how much of it is worth the attention that it is attracting.

## **POTENTIAL FOR RETAIL IN INDIA: IS SKY THE LIMIT?**

The Indian players are bullish on the Retail business and this is not totally unfounded. There are two main reasons behind this. Firstly, it is now undeniable that the face of the Indian consumer is changing. This is reflected in a change in the urban household income pattern. The direct fallout of such a change will be the consumption patterns and hence the banking habits of Indians, which will now be skewed towards Retail products. At the same time, India compares pretty poorly with the other economies of the world that are now becoming comparable in terms of spending patterns with the opening up of our economy. For instance, while the total outstanding Retail loans in Taiwan is around 41% of GDP, the figure in India stands at less than 5%. The comparison with the West is even more staggering. Another comparison that is natural when comparing Retail sectors is the use of credit cards. Here also, the potential lies in the fact that of all the consumer expenditure in India in 2001, less than 1% was through plastic, the corresponding US figure standing at 18%.

## **BUT HOW COMPETITIVE ARE THE PLAYERS?**

The fact that the statistics reveal a huge potential also brings with it a threat that is true for any sector of a country that is opening up. Just how competitive are our banks? Is the threat of getting drubbed by foreign competition real? To analyze this, one needs to get into the shoes of the foreign banks. In other words, how do they see us? Are we good takeover targets?

Going by international standards, a large portion of the Indian population is simply not “bankable” – taking profitability into consideration. On the other hand, the financial services market is highly over-leveraged in India. Competition is fierce, particularly from local private banks such as HDFC and ICICI, in the business of home, car and consumer loans. There, precisely lie the pitfalls of such explosive growth. All banks are targeting the fluffiest segment i.e. the upwardly mobile urban salaried class. Although the players are spreading their operations into segments like self- employed and the semi-urban rich, it is an open secret that the big city Indian yuppies form the most profitable segment. Over-dependence on this segment is bound to bring in inflexibility in the business.

## **WHAT ABOUT THE FOREIGN GIANTS?**

The foreign banks have identified this problem but there are certain systematic risks

involved in operating in the Retail market for them. These include regulatory restrictions that prevent them from expanding their branch network. So these banks often take the Direct Selling Agent (DSA) route whereby low-end jobs like sourcing or transaction processing are outsourced to small regional layers. So now on, when you see a loan mela or a road show showcasing the retail bouquet of an elite MNC giant, you know that a significant commission earned out of any such booking gets ploughed back to our own economy. Perhaps, one of the biggest impediments in foreign players leveraging the Indian markets is the absence of positive credit bureaus. In the west the risk profile can be easily mapped to things like SSNs and this information can be publicly traded. PAN is a step in this direction but lot more work need to be done. What has been a positive step towards this is a negative file sharing started by a consortium of 11 banks. However, as a McKinsey study points out actual write-offs on NPAs show a strong negative correlation with sharing of positive information. On top of this, the spend-now-pay-later “credit culture” in India is just not picking up. A swift legal procedure against consumers creating bad debt is virtually non-existent. Finally, the vast geographical and

cultural diversity of the country makes credit policy formulation a tough job and it simply cannot be dictated from a Wall Street or a Singapore boardroom! All these add up to the unattractiveness of the Indian retail market to the foreign players.

So over the past few years, in spite of the entry of MNCs in many industries, Retail Banking has seen a flurry of panicky exits. Fewer than 40 remain in India and their share of total bank assets currently 7.2% is falling. Those that remain might be thought to be likely buyers of Indian banks. Yet Citibank, HSBC and Standard Chartered—all in India for more than a century, and with relatively large retail networks—seem to have no pressing need to acquire a local bank. Established foreign banks have preferred to take over customers or businesses from other foreign banks that want to leave. Thus HSBC, in recent years, has acquired customers from France's BNP, Germany's Deutsche Bank and Japan's Bank of Tokyo-Mitsubishi. ABN Amro took over Bank of America's retail business.

This will perhaps be the most wrongful inference that can be drawn from the above. We just cannot afford to look inwards and repeat the mistakes that were the side effects of the Nationalization of the Banking System. A

growing market can never be an alibi for lack of innovation. Indian banks have shown little or no interest in innovative tailor-made products. They have often tried to copy process designs that have been tested, albeit successfully, in the West. Each economic culture has its own traits and one who successfully adapts those to the business is the eventual winner. A case in point is the successful implementation of micro-credit networks in Bangladesh. Positioning a bank as a tech-savvy financial vendor in a country where Internet penetration is an abysmal 1.65% can only add to the over-leveraging as pointed out earlier. The focus of the sector should remain in macroeconomic wealth creation and not increasing the per capita indebtedness that will do little but add to the NPA burden. Retail Banking in India has to be developed in the Indian way, notwithstanding the long queues in front of the teller counters in the Public sector banks!

### **CHALLENGES AND OPPORTUNITIES**

Retail banking in India has vast opportunities and challenges. The rise of the middle class is an important contributory factor in this regard. Improving consumer purchasing power, coupled with more liberal attitudes toward personal debt is contributing to India's retail banking segment.

Increase in purchasing power of the younger population would give an immense opportunity. It has been found that younger generation is more comfortable in acquiring debt than the previous generation, thereby improving-purchasing power and liberal attitude towards personal debt, and contributing to India's retail segment. The SEZs will also provide growth opportunity for retail banking. The combination of these factors promises growth in the retail sector, which at present is in the nascent stage. As retail banking offers phenomenal opportunities for growth, the challenges are equally daunting. The retail banks have to market their products aggressively. The challenge is to design and innovate the financial products which cater to the target segment needs. In future, retail banking scenario will see a huge proliferation of products. This will in turn require devising product which is easy to understand and at the same time meet the financial goals of the customers. The entry of new generation private sector banks has changed the entire scenario. The retail segment, which was earlier ignored, is now the most important of the lot, with the banks jumping over one another to give out retail loans. With supply far exceeding demand it has been a race to the bottom, with the banks undercutting one another.

The nimble footed new generation private sector banks have been losing business to the private sector banks in this segment. PSBs need to figure out the means to generate profitable business from this segment. Another major challenge in retail banking is attraction as well as retention of customers.

In fact, the retention is more difficult in this competitive environment. Customer retention favorably affects the profitability. According to a research by Reich held and Sasser in the Harvard Business Review, 5% increase in customer retention can increase profitability by 35% in banking business, 50% in insurance and brokerage, and 125% in the consumer credit card market. Thus, banks need to focus on customer retention. Sustainability is another issue, which is becoming increasingly vital with respect to the growth of retail banking in India, due to excessive concentration on the top-line without regard to the quality of growth of the top-line, increasing market share by increasing risk appetite and entering the markets where a bank may not have a competitive advantage. Technology has made it possible to deliver services throughout the branch bank network, providing instant updates to checking accounts and rapid movement of money.

However this dependency on the network has brought IT department's additional responsibilities and challenges in managing, maintaining and optimizing the performance of retail banking networks. The network challenges include proper functioning of distributed networks in support of business objectives. Specific challenges include ensuring that account transaction applications run efficiently between the branch offices and data centers. Another issue of concern is the rising indebtedness, which could affect the future growth of retail banking. The banks will also have to shore up the image of their brand. A bank has to build its brand by clearly communicating what it stands for and ensure that the brand image is consistently conveyed to its customers. This would call for seamless integration of all channels to ensure optimum customer satisfaction, regardless of the channel being used. Most of the retail banks are witnessing a tremendous expansion in their customer base. However, on the other hand there is increasing menace of hacking, phishing and farming through which scamsters are creating havoc indulging in cybercrimes on a large scale. In a service industry the value can be delivered at the moment of interaction with the customers. Banks, in a drive to carry on with

tremendous expansion in terms of customer base, need to have requirements of the employees who are well informed about the products as well as have the necessary soft skills to deal and satisfy the customers. It challenges for the bank to upgrade their existing manpower and retention or lock in the best talents for having competitive advantage in terms of human resources.

With recession departing away from away global economy, opportunities are slowly emerging in emerging markets. Since emerging markets, except China, were less depending upon US for growth; are first to come out of recession eclipse. Growth opportunities in banking, especially retail segment is set to witness fast growth due to high consumption. The higher growth of retail lending in emerging economies is attributable to fast growth of personal wealth, favorable demographic profile, rapid development in information technology, the conducive macro-economic environment, financial market reforms, and several micro-level supply side factors.

The retail banking strategies of banks are undergoing major transformation, as banks adopt a mix of strategies like organic growth, acquisitions and alliances. This has resulted in a

paradigm shift in the marketing strategies of the banks. Public Sector Banks players are adopting aggressive strategies, leveraging their rural branch network and their customer base to earn a larger share of the retail pie. Banks are also going in for innovative strategies like cross selling, packaged selling of retail products and technology based banking. At the same time, new foreign players are also entering this high growth sector.

### **SUMMARY AND CONCLUSION**

The conventional scenario of banks is fast changing. Retail banking has gained enormous momentum in the Indian banking sector during last five years. There is vast opportunity as well as challenges for retail banking in India. The changing portfolio of retail banking in India has many dimensions. There is a need of constant innovation in retail banking. Banks need to use retail segment as a growth trigger. There is a noticeable change in the number and nature of products being tossed up along with the way in which banking services are being offered. Banks requires product development and differentiation, innovation and business process re-engineering, micro planning, marketing, prudent pricing, customization, technological up gradation and cross selling. The competitive

advantage in retail banking that would help each bank to reach out and retain the customer. The product differentiation will provide a bank with an edge over competition. Efforts should be made to ensure customer delight, which is essential in order to retain the customers in the open competitive business. There should be operational transparency while dealing with the customers. CRM must be used to make customer delight. The delivery channels require comprehensive approach to ensure convenience and reliability. The retail segment can survive only if it is competitive. These challenges demand a well planned and implemented strategy to cope with the changing business environment. These challenges can be converted into opportunities by enhancing the internal capabilities and providing the innovative products and services fulfilling the diverse needs of the customers. The future growth of the retail banking sector would be the outcome of the strategies of today. Given the size advantages,

diverse customer base and scope for future expansion, there is need for evolving a systematic approach to retail banking.

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Dr. Srinivasa Rao  
Assistant Professor  
Department of MBA  
TJPS College  
Ring Road  
Guntur  
E-Mail Id: ssr2160@gmail.com

### **Current Account Deficit – Corrective Measures & Strategies – Students Perspective**

### MR. SWAMINATH. S \*

**Abstract:** India's Current Account has been impacted by several shocks and events over the last few decades. The country weathered a series of crises, including the devaluation of the rupee in 1966, oil shocks in 1973 and 1980, external payments crisis of 1991, the East Asian crisis of 1997, and the global financial crisis of 2008. The recent discussions on the macro-economic risks to the Indian economy have once again come to fore as India battles with a widening current account imbalance, which is further adding pressure on the rupee.

One of the major indicators of a country's external performance is its current account. The imbalances in it might predict future changes in a controlled foreign exchange regime. The Current Account Balance is one of two major measures of the nature of a country's foreign trade. A Current Account Surplus increases a country's net foreign assets by the corresponding amount, and a current account deficit does the reverse. Both government and private payments are included in the calculation. It is called the current account because goods and services are generally consumed in the current period.

This paper analyses the need of students to know complete information about our economy, particularly Balance of Payments issue, with regards to Current Account Deficit. A sample of 500 students studying under Bangalore University under different respective courses namely (B.Com & BBM – Final Year) will be given a questionnaire which consists of 30 questions. Data will be collected with the help of Social Media (Facebook, Whatsapp & E-Mail) as well as taking assistance from students of Seshadripuram Academy of Business Studies, Kengeri Upanagar, and Bangalore to contact students physically and get the information required from them.

**Key Words:** Current Account Deficit, Absence of Information can also be an Opportunity to convert it as a Corrective Measure, Students Perspective, and Responsibility of Society.

#### **BACKGROUND OF THE STUDY:**

India's travails on the Balance of Payments front started from the Second Five-Year Plan (1956), and continued till the crisis of 1991. The 1991 Balance of Payments crisis forced India to open her long shut doors to foreign investments. This was done in a gradual manner by removing various restrictions, which caused India to be under a License Raj. During the License Raj, eighty government agencies had to be satisfied for private companies to produce goods and, the government would regulate production. After the reforms the economy saw a turnaround, from the ease of doing or starting a business to attracting capital flows from abroad. The opening up the economy led to the inflow of capital from the world. The inflow of foreign capital was good for the economy. India was more connected to the outer world. However, India also had to bear with the uncertainty and speculation surrounding the global financial markets.

The free flow of capital can be a blessing and a curse. Heavy dependence on the inflow of capital in the Capital Account to balance the Balance Of Payments account is dangerous. India is a developing economy and heavily dependent on oil and petroleum products, not just for transport, but for many other industries as well. India is not rich in oil reserves and depends on oil imports for her needs. CAD has gone up sharply in the last two years on the back of higher oil and gold imports. Export growth slowdown has also hit the CAD. Oil imports make up a large portion of the total imports and rupee depreciate pushes up the oil bill causing problems to the CAD. In addition to oil, gold also has joined in to cause trouble to the CAD. The metal is a favorite with Indians and is seen as a very attractive investment. Gold imports are increasing and this is adding to the CAD.

A high and uncontrollable CAD may scare foreign investors which in turn would weaken the rupee, which then would cause a further strain on the CAD. This effect is a chain-effect. Hence in

this study we analyze the importance of each and every individual for the betterment of Current Account Deficit Position of a country. India is accounted for 60% of population which are in the age group of 18 to 35. So a lot of things should happen from younger generation in terms of taking the responsibility of a nation to make it as developed nation among other countries in the world.

### **STATEMENT OF PROBLEM:**

Current Account measures the flow of goods, services, transfers and, investment income between domestic residents, businesses and governments and the rest of the world. Hence it measures the exports and imports of commodities and services, the movement of investment income from one home country to the rest of the world and vice-versa. It measures unilateral transfers between the agents of the domestic country and the rest of the world. If the balance of the Current Account is negative, i.e. if the imports are greater than the exports then there is said to be a CAD. The CAD is said to be necessary for a growing economy, though it is recommended in a small amount. The sustainable CAD that is safe for India is said to be in the range 2.4-2.8 % of GDP. This is a result of a study by Rajan Goyal, Director in the Department of Economic and Policy Research, Reserve Bank of India. By this background efforts are made to understand the need in which Young Minds have to understand the current position of the country.

### **OBJECTIVES:**

1. To know the amount of knowledge students possess regarding CAD.
2. To create awareness in the minds of students about their responsibility.
3. To understand various measures taken by Government & RBI to reduce CAD.

### **SCOPE OF THE STUDY:**

The paper intends to find out the necessity of the Youth of Nation and their responsibility to bring down Current Account Deficit to greater extent.

To achieve our objective a set of 30 questions prepared and distributed to 500 students studying B.Com & BBM final year in different colleges affiliated to Bangalore University through direct means and other social network communication channels such as face book, what's app, etc. The research paper also shows 30 years of information regarding Current Account Deficit as well as Prime Commodities worsening the situation to worry.

### **METHODOLOGY & SAMPLE SIZE**

The Research is Primary in nature. A set of 30 questions prepared and distributed to 500 students studying B.Com & BBM final year in different colleges affiliated to Bangalore University through direct means and other social network communication channels such as face book, what's app, etc. results will be projected based on data collection. Secondary data is also used to give a clear picture to students about CAD as well as major importing commodities for a period of 30 years and the data borrowed from official website of Reserve Bank of India.

### **REVIEW OF LITERATURE:**

**Turner (1991)** explains that capital flows magnify current account disequilibria with deficit countries confronted by capital outflows and surplus countries by capital inflows. **Sarno and Taylor (1999)** assert that recent trend of capital flows to developing countries is the crucial source of financing the current account financing requirements rather than official flows. **Arize(2002)** provided evidence of a long-run equilibrium relationship between exports and imports for the Indian economy by employing data for the period 1973 to 1998. **Upender (2007)** showed that India's nominal exports and imports were cointegrated by employing data for the period 1949-50 to 2004-05. **Sharma and Panagiotidis (2005)** examined the export led growth hypothesis for the period 1971-2001 for India.

### **RESEARCH GAP:**

There are many studies concentrating only on establishing the relationship between Current Account Deficit and various Economic Variables relating to a country. Many research studies were based on identifying various corrective measures and strategies which the government has to follow in order to control the deficit in current account. At the outset the research paper mainly concentrate on the students and their responsibility to mould their parents and others for the betterment of country's economic position in front of a public.

### **SOURCES OF DATA:**

The Primary study carried by preparing a set of 30 questions through questionnaire. Secondary data regarding current account deficit as well as Prime Imported commodities such as (Gold & Oil Products) for 30 years taken from Reserve Bank of India, Official website. The methodology adopted to collect the information is of secondary source; which includes referring to magazines, books, news papers, internet, journals and presented papers, etc.

### **TOOLS & TECHNIQUE FOR DATA COLLECTION:**

The primary data collected projected through graphs, pie charts, bar charts etc. Secondary data collected is of time series in nature and projected using (Current Year to Base Year Comparison as well as Year on Year Comparison).

### **PLAN OF ANALYSIS:**

The Primary data collected by drafting 30 questions relating to CAD as well as Prime Import of Commodities. Data distributed across 500 students studying in different colleges of Bangalore University over Social network sites as well as direct contact through the students of Seshadripuram Academy of Business Studies final year B.Com students. Data collection and analysis took 15 days to interpret the projection likely of current scenario.

### **LIMITATIONS OF THE STUDY:**

1. The study is restricted only to 500 students studying B.Com & BBM Final year under Bangalore University in different colleges as well as Time Constraint.
2. The data collected by using Social Network sites which are not 100% reliable.
3. The study focuses on knowledge the students possess about CAD which do not completely represent as a complete measure to be considered to solve the issue.

### **DATA ANALYSIS & INTERPRETATION:**

Balance of Payments (BoP) statistics systematically summaries the economic transactions of an economy with the rest of the World for a specific period. The Reserve Bank of India (RBI) is responsible for compilation and dissemination of BoP data. BoP is broadly consistent with the guidelines contained in the BoP Manual of the International Monetary Fund.

Balance of payment (BoP) comprises of current account, capital account, errors and omissions and changes in foreign exchange reserves. Under current account of the BoP, transactions are classified into merchandise (exports and imports) and invisibles. Invisible transactions are further classified into three categories, namely (a) Services-travel, transportation, insurance, Government not included elsewhere (GNIE) and miscellaneous (such as, communication, construction, financial, software, news agency, royalties, management and business services); (b) Income; and (c) Transfers (grants, gifts, remittances, etc.) which do not have any quid pro quo.

Current account is one of the components to maintain balance of payments of a country. It refers to the net revenue of a country from international trade minus the imports in the fiscal year. In the calculation of current account – the goods, services and transfers of a country are taken into account. A deficit runs when the total goods, services and transfers imported by a country are more than the total goods, services

and transfers exported by it. Basically, this refers to when a country's government, businesses and individuals import more goods, services and capital than it exports. The difference in the balance is precisely what is called the 'Current Account Deficit'.

### **Calculation of the Current Account**

**Deficit:** Balance of Payment is made up of two components- a) Current Account and b) Capital Account. Let us look at the current account which this article primarily deals with. It is made up of three parts:-

**Balance of Trade:** The money which comes in is taken as positive (+) and the money that is going out is taken as negative (-). The deficit or surplus between exports and imports is called as the 'net difference'.

**Earnings on Investment:** Foreigners invest their money in India through FDI and FII. Similarly Indians also invest their money abroad. The investors earn an income in the form of interest rates and dividends. The amount of money that is actually invested is put under capital account while the interest earned is included in the current account.

**Cash Transfers:** Cash transfer is the money that is transferred without any exchange of goods or services. The example of a worker in Dubai sending money to his family in Tamilnad is a case of such a remittance. The money is transferred without exchanging any goods or services. Donations also fall under cash transfers.

### **INDIA'S OVERALL CURRENT ACCOUNT DEFICIT POSITION – 1983 to 2103**

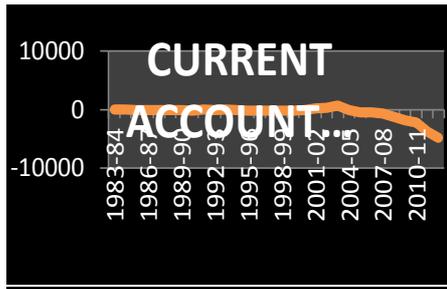
(Rs. in Billion)

Sl. No.	Year	Current Account Deficit	Current year to Base year Comparison	Year to Year Comparison
1	1983-84	- 33.16	100	100
2	1984-85	- 28.73	87	87
3	1985-86	- 59.56	180	207
4	1986-87	- 58.30	176	98
5	1987-88	- 62.93	190	108

6	1988-89	- 115.80	349	184
7	1989-90	- 113.89	343	98
8	1990-91	- 173.67	524	152
9	1991-92	- 22.35	67	13
10	1992-93	- 127.64	385	571
11	1993-94	- 36.34	110	28
12	1994-95	- 105.83	319	291
13	1995-96	- 196.46	592	186
14	1996-97	- 162.82	491	83
15	1997-98	- 208.83	630	128
16	1998-99	- 167.89	506	80
17	1999-00	- 203.31	613	121
18	2000-01	- 115.98	350	57
19	2001-02	164.26	-495	-142
20	2002-03	306.60	-925	187
21	2003-04	639.83	-1930	209
22	2004-05	- 121.74	367	-19
23	2005-06	- 437.37	1319	359
24	2006-07	- 443.83	1338	101
25	2007-08	- 635	1915	143
26	2008-09	- 1276	3848	201
27	2009-10	- 1797	5419	141
28	2010-11	- 2196	6622	122
29	2011-12	- 3760	11339	171
30	2012-13	- 4796	14463	128

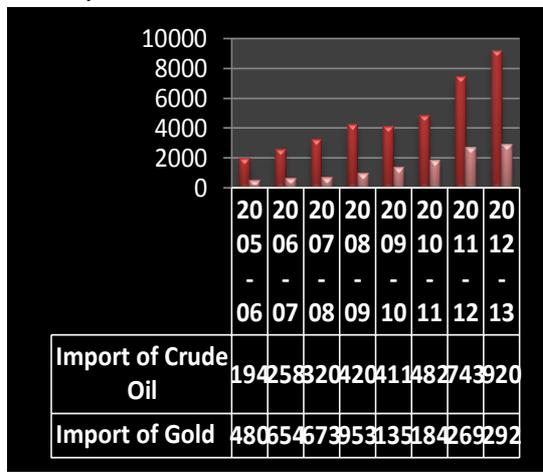
It is clear that from 1983 to 2000, over a period of 17 years Imports are always more than exports, there by current account deficit arised in the country. In the year 2001 to 2003 due to heavy multinational companies stepping into different geographical areas of the country bought huge amount of money into country. From 2004 onwards, it's a time where country doesn't see any improvements in exports, due to better standard of living, global turbulence, etc. current account deficit worsening to worry.

### **Graphical Representation of Current Account Deficit – 1983-84 to 2012-13:**



**Import of Principal Commodities – Oil Products & Gold**

(Rs. in Billion)



**Effects of current account deficit:** A current account impacts the net foreign reserves of a country, running a current account deficit essentially means that the country is indebted to other countries that have contributed to its imports. The country can pay back this debt by running down its foreign assets which primarily includes foreign currency reserves that it holds. In the short-run, a current account deficit is mostly advantageous. Foreigners are willing to pump capital into a country to drive economic growth beyond what it could manage on its own. However, in the long run, a current account deficit can sap economic vitality. Foreign investors may begin to question whether economic growth can provide an adequate return on their investment. Demand could weaken for the country's assets, including the country's government bonds. As this happens, yields will rise and the national currency will gradually lose value relative to other currencies. This

automatically lowers the value of the assets in the foreign investors' currency, which is now getting stronger. This further depresses the demand for the country's assets. This could lead to a tipping point, at which investors will dump the assets at any price.

India's CAD woes in the final quarter of 2012 – India's CAD had reached a historic high of 6.7%. This was on the back of increasing imports as well as prices of Crude Oil and Gold that form a major portion of the total imports of the country. As of 2012, crude oil accounted for 32% of the total import bill of the country while gold accounted for 12.5% of it. The reducing demand for Indian exports had further compounded the problem. The situation is expected to get better with the decline in the global commodity prices and the fiscal measures being taken by the government to not only reduce the high CAD but also control the fiscal deficit that it has been running due to oil subsidies. An improvement in the global demand is also expected to contribute towards improving India's CAD figures.

Falling Gold & Oil Prices Helps India GDP in FY13 US \$ 1.85 trillion, Expected CAD in FY13 at 5% of GDP i.e. \$ 92.5 billion. Total Imports \$ 500 billion, Total Exports \$ 200 billion. Oil imports 30% of total imports i.e. \$ 150 billion- A 15% drop in oil prices shaves off \$ 22.5 billion of our imports. Gold imports 12% of total imports i.e. \$ 60 billion – a 20% drop in gold prices shaves off \$ 12 billion of our imports. Hence total savings are \$ 34.5 billion i.e. humongous 38% of India's CAD. Even assuming only 10% drop in oil and 20% drop in gold prices the savings are \$ 27 billion i.e. 29% of India's CAD.

A large current account deficit, which is fuelled by a trade gap, is the biggest drag on the Indian rupee. The rupee weakened by more than 3% against the dollar in 2012. This was followed by a 16% fall last year. When a country has a current account deficit, it becomes a 'debtor' to the whole world. It 'owes' foreign exchange to the tune of the deficit. To nullify this debt, the Government, has to attract overseas investors who bring capital to invest in India. This can be

in the form of investment in real assets like factories, airports, roads etc. They can also give financial assets like equity, debt, treasury bills, bank deposits etc. The inflows are part of the capital account which complements the current account by financing its deficit. Depending on foreign resources can be extremely dangerous, as the flight of the resources out of the country can ruin the economy's fundamentals. This occurs because of a systemic risk which is brought about by the reversal of capital. If unchecked, the economy can head for another crisis. The Finance Ministry in January 2013 said that a current account deficit could mean a net outflow of dollars. This can drain the foreign exchange reserves. Thus a country with a current account deficit has to attract capital inflows like FDI. If the capital inflows are insufficient to meet the deficit, the currency starts to depreciate.

#### **Recent Measures taken by RBI to control Current Account Deficit:**

- Recently the Reserve Bank hiked FII investment limits in government securities and corporate bonds by USD 5 billion each, taking the total cap in domestic debt to USD 75 billion, with a view to bridging the current account deficit.
- The three-year lock-in period for foreign institutional investors (FIIs) purchasing government securities (G-Secs) for the first time has been done away with.
- The sub-limit of USD 10 billion for investment by FIIs and long-term investors in G-Secs stands enhanced by USD 5 billion.
- The limit in corporate debt, other than infrastructure sector, stands enhanced from USD 20 billion to USD 25 billion.
- With increase of USD 5 billion in each of the two categories, FIIs and long-term investors can now invest USD 25 billion in G-Secs and USD 50 billion in corporate debt instruments, taking the total to USD 75 billion.

- The overall FII limit of domestic debt is distributed through a host of categories across government, corporate and infrastructure debt.

For India's official economic decision makers, the required actions appear to be in the capital account. They seem to have decided that the basic way to deal with India's ongoing external crisis is to somehow placate and woo investors who can choose between Indian and global financial assets. Various measures have been announced, from easing the terms for NRI bond holders to allowing FIIs to access securities purchases directly without waiting for monthly auctions. In a remarkably short-sighted strategy, Public Sector Enterprises are being encouraged (or forced?) to take on external commercial borrowing that will bring dollars flowing back into the country, even if this may become expensive or impossible to repay later. Vague promises are being made of future liberalisation of rules for FDI and other capital inflows.

**Recommendations:** The simplest solution to a high current account deficit is to increase exports and reduce imports. But as of now the Government is focused on reducing imports as there is a export slowdown due to weak global demand. Gold imports have sought to be reduced by imposing import duty. In an attempt to lower the deficit, the Finance Minister increased the import duty on gold from 4% to 6% in order to decrease the demand for the same. Gold today has crossed 10 % of the total import bill. Schemes are being put in place to channelize retail gold holdings into institutions so that more gold could be released and circulated. This will reduce gold imports. One strong step that needs to be taken is to peg the Indian rupee against the US dollar atleast for a year. One of the important reasons is that India's foreign exchange reserves have dropped from a peak of \$ 320 bn in September 2011 to \$290 bn in 2012. This is a drop of \$30 billion which should alert the policy makers. This means increased supply of rupees against the dollar in the foreign exchange market. This will therefore reduce the value of the rupee. Exporting firms in India are expecting the

rupee to further fall thereby affecting their export potential. Foreign investors are also converting their rupee asset into dollars and taking them out. This spells out a clear case for rupee devaluation. Banks can help to overcome the situation by increasing the interest on the rupee deposits of their customers. Given the situation as outlined above, the Government can think of devaluation and peg it for a year. Rs. 60/- to \$1/ might be ideal. The same move has been recently suggested by Bimal Jalan, former Governor of Reserve Bank of India.

As we have already seen, oil bill forms a substantial part of our import bill. The Government can bring a clear cut policy on promoting renewable sources of energy and also take bold initiatives towards Bio-CNG, Bio butanol, Bio diesel, Solar power, Wind power etc. The Government could further give efficiency rewards for industry. The Government can also encourage the production of electric vehicles which are costly to make but which are very energy efficient. Some successful public private partnerships have proven to be useful and the same could be tried for energy renewable also.

Inflationary pressures should be curbed. From the graph below it can be seen that The Government, since mid September 2012 has sharply increased the price of diesel to reduce fuel subsidies. Currently the Government plans to increase the price of diesel by 50 paise every month. The subsidies on LPG cylinders have also been reduced. The Government has allowed for more foreign investment in retail, broadcasting and aviation. Changes have been approved by lawmakers in the banking laws. This move is expected to pave the way for new bank licenses from the central bank inflation rates are quite high. Between January 2011 and 2012 the rates were hovering around 9.5%. From there on, till January 2013, it has been at an average of 7.5%. It January 2013, it decreased to 6.62%. The rates are still very high making the exports non-competitive.

Other known measures are: - Import controls, Exchange controls, Travel money, Devaluation of Currency, Floating currency, etc.

**CONCLUSION:** In this paper, the study was undertaken mainly to identify and understand the mind set of Young Mind of India regarding CAD and importing of Prime Commodities. The data collected through questionnaire reveals that a strong step needs to be taken to update and hold responsibility by each and every individual to save our country. 60% of young population, best in world should never ever have to go blank. Series of steps are taken up jointly by Government of India as well as Reserve Bank of India. The paper depicts the necessity of Young Population and their responsibility to reduce the usage of Gold and Oil products and divert investment on financial assets rather than physical assets. Final aim of the paper is to create awareness of current economic worsening condition of the country in the minds of students.

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**Mr. Swaminath S, B.Com, M.Com, NET & JRF, PGDFM, PGDBA, PhD (Pursuing)**  
**Faculty, Dept of Commerce & Management**  
**Seshadripuram Academy of Business Studies**  
**Kengeri Satellite Town, Bangalore-560060**  
**E-mail: [iams\\_redeblue@yahoo.co.in](mailto:iams_redeblue@yahoo.co.in)**

## **The Management of Finance in Kantilla's Arthasastra**

**P.VENKATA SUBBA RAO \***

## S. SOMA SEKHAR\*\*

**Introduction:** Kautilya is considered the greatest political scientist. India has ever produced, and because of this pre-eminence of occupying the highest place among the thinkers and writers of political science in ancient India, he is generally looked at with great respect for his excellent work on state craft and political wisdom, entitled as “Arthasastra”.

His essential independence and emphatic inclination for a strong, centralized and all powerful state administration coupled with necessary limitations of general welfare make him a philosopher par excellence.

Mehata finds the Arthasastra more of a treatise on administration than on politics and state craft. He claims that administrative principles are discussed with such insight as to make us wonder whether there has been any real progress in the science of administration since then. R.S.Sharma argues that growth of a state apparatus was closely connected with the increasing supply of various taxes. The ancient Indian political thinkers had very well realized that any stable and prosperous state essentially requires sound finances, sufficient reserve funds and abundant treasury. The sources of state finance were as may as should be devised by human ingenuity. The state also regulated trade, commerce, manufacture, labour, etc.

The Arthasastra is more a manual for the administrator than a theoretical work on polity discussing the philosophy and fundamental principles of administration. It is mainly concerned with the practical problems of government and describes its machinery and functions both in peace and war, with an exhaustiveness not seen in any later work, with the possible exception of Chanikya. According

to him ancient Indian theory of taxation was based on humanitarian considerations and on principles universally recognized as sound, applicable as much in modern as in ancient times.

Taxation and revenue collection comprise one of the most significant and important aspects of any system of administration and governance. The basic structures of taxation ultimately providing for revenue collection for the state machinery are the basis of state functioning. The plans of societal development and overall progress of the state could be materialized only, only when the condition of public finances is conducive to the state efforts in this direction. The ancient Indian political thinking has always considered the issue of public finance to be of prime importance and this is why Arthasastra of Kautilya provides for a detailed description of the ways and means of creating an abundant treasury (Kosha) which is the inseparable part of the seven organs of state machinery (Saptanga). Kautilya discusses the method of revenue collection along with describing the modes of taxation with

specification of levying normal and additional taxes in different conditions and on different categories of citizenry. The present paper tries to explain the nature and structure of taxation and revenue collection as narrated by Kautilya in his monumental classic Arthashastra with a perspective of Public finance in ancient India.

Prosperous treasury and ample reserve funds were considered be the essential element of the state by ancient India thinkers keeping in view the absolute necessity of sound finances for smooth and proper functioning of any state as any kind of deterioration in financial conditions of the state would prove to be 'one of the most serious calamity'. The king was never to forget that nothing exposed him to greater hatred than oppressive taxation. The criterion of equitable taxation was that the state on the side and the agriculturist or the trader on the other should both feel that they have got a fair and reasonable return for their labours; in the case of trade and industry, the taxation was to be on net profits and not on gross earnings ; an article was to be taxed only once and not twice ; if increase in taxation becomes inevitable it should be gradual and not sudden and steep; and extra taxation was to be imposed only in times of national calamity after taking comprehensive steps to explain the situation to the people with a view to ensure a willing response. The king was never to forget that it was only an exceptional remedy to be adopted when there was no other alternative.

"The finance in planning was the life-breath of the state. It was acknowledged by Kautilya as much as it is accepted by the modern

state." Recognizing the extraordinary significance of finance, Kautilya states that all under values depended on finance and that king should look to the treasury first. He underlines that when the receipts and expenditure are properly cared for, the king will never find himself in financial and military difficulties. Modern public finance deals with the government measures. It establishes a rational relationship between national income and expenditure. The main objectives of public finance are to put the financial position of the state on a sound footing and help the state achieve its aim and ideals through financial policies. The essential role of public finance is to achieve harmony between the state revenues and expenditures. Kautilya's perspective on public finance is similar to the modern one in several respects.

Kautilya emphasizes that the officer-in-charge of finance should concentrate all his efforts on increasing income and reducing expenditure. The details of each financial activity, including record keeping, types of income and control of expenditure and taxation is given in book two. The leader is expected to maintain a system of daily, weekly, monthly and yearly accounting system to regularly check the income and expenditure. Thus, he can make the required corrections and control expenditure. This system started by Kautilya 2400 years ago has already been widely practiced by organizations across the globe.

It is because of the meticulous care with which Kautilya deals with questions pertaining to finance that the Arthashastra is also known as a treatise on applied finance. This embodies

sound teaching and thought on public finance and is an authoritative text on the subject even by the modern standards. It has tremendous relevance to modern times and is perhaps the only work of its kind in classical antiquity – Unique, brilliant, objective and foreseeing. We are indebted to Chanikya for a detailed description of the financial system as it existed in Chandragupta's time.

Kautilya has recommended maintaining the records of financial transactions in minute detail. He has suggested limiting withdrawals from the treasury. In short, the state should regulate its finance in such a way that it can easily manage through calamitous times. As an economist, Kautilya balanced his budgets well and always preferred surplus budgets to deficit budgets.

Kautilya took several steps to ensure that a king got taxes from people like a person picked up ripe fruits from a tree. The king should not anger the people by over burdening them with taxes, just as one should not pluck unripe fruits as it affects the growth of the tree.

**Revenue Collection :** The Collector-General shall attend to (the collection of revenue from) forts (durga), country parts (rashtra), mines (Khrai), buildings and gardens(setu), forests (Vanam), herds of cattle (Vraja) and roads of traffic (Vanikpatha).

The classification of revenue Collection is as follows :

**Durga:** Tolls, fines, weightage and measures, the town clerk (nagaraka), the superintendent of coinage, the superintendent of seals and

passports, liquor, slaughter of animals, threads, oils, ghee, sugar, the state gold-smith, the warehouse of merchandise, the prostitutes, gambling, building sites, the corporation of artisans and handicrafts men, the superintendent of gods, and taxes collection gates from the people bhirikas under the head of forts (Durga).

**Rashtra :** Produce from clown lands, portion of produce payable to the government (bhaga) , religious taxes (bali), taxes paid money merchants, the superintendent of rivers, ferries, boats and ships, towns, pasture ground, road-cess, ropes, and ropes to find these come under the head of country parts.

**Khani (Mines) :** Gold, Silver, diamonds, gems, pearls, corals, conch shells metals (loha), salt and other minerals extracted from plains and slopes come under the head of mines.

**Setu :** Flower gardens, fruit gardens, vegetable gardens, wet fields and fields where crops are grown by sowing roots for seeds come under Setu.

**Vanam :** Game forests, timer forests, elephant forests are Vanam.

**Vraja :** Cows, buffaloes, goats, sheep, asses, camels, horses and mules come under the head of herds.

**Vanikpatha :** Land and Water ways are the roads of traffic.

All the above stated heads form the body of income. The mouth from which income is to issue is comprised of capital, share, premise, gate-

duty, fixed taxes, premia on coins and fixed fines as several forms of revenue.

Duties of Collector General : He shall pay attention to the work in hand, the work accomplished, part of a work in hand, receipts, expenditure and net balance. The business of upkeeping the government (Samasthanam), the routine works, the collection of necessities of life, the collection and audit of all kinds of revenue – these constitute the work in hand. Siddham that has been credited to the treasury ; which has been taken by the king ; that which has been spent in connection with the capital city not entered into the register, or continued from year before last, the Royal command dictated or orally intimated to be entered into the register all these constitute the work accomplished. Preparation of plans for profitable works, balance of fines due, demand for arrears of revenue kept in abeyance, and examination of accounts. These constitute what is called part of a work in hand which may be of little or no value.

Expenditure: Expenditure is of two kinds – daily expenditure and profitable expenditure. What is continued every day expenditure is daily expenditure? Whatever is earned once in a Paksha, a month, or a year is termed profit expenditure. Whatever is spent on these two heads is termed as daily expenditure and profitable expenditure respectively. That which remains after deducting all the expenditure already incurred and excluding all revenue to be realized is net balance which may have been

either just realized or brought forward. A wise collector General shall conduct the work of revenue – collection, increasing the income and decreasing the expenditure.

Secrecy: When the accounts of different districts present themselves with sealed books, commodities and net revenue, they shall be kept apart in one place so that they cannot carry on conversation with each other. Having heard from them the totals of receipts, expenditure, and net revenue, the net amount shall be received.

Collection Responsibility: All the ministers shall together narrate the whole of the actual account pertaining to each department. Whoever of these (minister or accountants or clerks) is of undivided counsel, or keeps himself aloof, or utters falsehood, shall be punished with the highest amercement. He who causes loss of revenues shall not only pay a fine equal to five times the amount lost, but also make good the loss. In case of uttering a lie, the punishment levied for theft shall be imposed. When any entry (loss or omitted) is made later or is made to appear as forgotten, but added later on recollection the punishment shall be double the above. The king shall forgive an offence when it is trifling, satisfaction even when the revenue is scanty, and honour with rewards such of his superintends as are of immense benefit to him.

Finance Prosperity : Public prosperity, rewards for good conduct, capture of thieves, dispensing with government servant, abundance of how best prosperity of commerce, absence of troubles and calamities, diminution of remission of taxes, and income in gold are all conducive to financial prosperity.

*Additional Income :* In such parts of his country which depend solely upon rain for water and are rich in grain he may demand his subjects one-third or one-fourth of their grain, according to their capacity. He shall avoid the property of forest tribes, as well as of Brahmans learned in the Vedas. But such demand shall be made only once and never twice. When such demands are not made, the collector-general shall seek subscriptions from citizens and country people alike under false pretences of carrying this or that kind of business. The measures of collecting additional taxes shall be taken only against the seditious and the wicked and never against others.

*Collection Rule :* Chanikya has not forgotten the payers' needs too. He had said, "Taxes should be collected the way a honey bee collects honey from the flower." The flower is willing to give up its sweetness, but the bee also takes care that only a little is taken without hurting the flower.

Just as fruits are gathered from a garden as often as they become ripe, so revenue shall be collected as often as it becomes ripe. Collection of revenue or of fruits, when unripe, shall never be carried on, least their source may be injured, causing immense trouble.

The taxation in ancient India was fair, equitable and reasonable in actual practice. The taxation was to be based on reason and equity; the king was never to forget that nothing exposed him to greater hatred than oppressive taxation. The gardener plucks fruits and flowers but does not harm the trees ; the bee sucks the honey but

does not damage the flower ; in the same way the king should collect his taxes but should not cause any sufferings on his subjects. One who kills the goat can at best get one meal, one who feeds it well can get milk for several years.

The criterion of equitable taxation was that state on the one side and the agriculturist or the trader on the other should both feel that they have got a fair and reasonable return their labours. In the case of trade and industry, the taxation was to be on net profits and not on gross earnings. An article was to be taxed only once and not more than once in any case. If increase in taxation becomes some how inevitable, it should necessarily be gradual and not a sudden and step rise ; extra or additional taxation was to be imposed rarely, only in times of national calamities after taking comprehensive steps to explain the situation to the people with a view to ensure a willing response. The king was never to forget that it was only an exceptional remedy to be adopted when there was no other alternative.

*Conclusion:*"Arthasastra" evinces some finest dimensions of public administration in ancient India. The inherent idea of public good, the apparent content of welfare state, the potential nature of strict state authority, the overwhelming presence of state sovereignty the evident supremacy of the willing subordination of the people, the specific demarcation of functional responsibilities of different personnel, the vigilant hierarchical supervision, the minute observation of various occupations, and the humanistic assessment of their living conditions – all makes us believe that the state in ancient India in

general and in Kautilya's period in particular was more and more a well-organised welfarist mechanism aiming to achieve overall happiness and wellbeing of the populace through properly carved out structures of public administration. The whole trajectory of taxation system and modes, means and mechanisms of revenue collection in Kautilya's Arthashastra make it evident that the taxation in that period of history was considerate, humanitarian, strong, strict, based on prescribed rules and regulations and largely dependent upon the nature of requirements of the state of a particular period of time for the purpose of creating large scale facilities and opportunities for the people in general besides providing for the upkeep of the government machinery. Therefore, there appears to be a well planned strategy of attaining legitimacy to the state functioning besides creating and completing ambitious construction projects for wide public use.

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## **The Implementation of Strategic Management Accounting Based on Value Chain Analysis**

**MR. B. CHAKRAVARTHI \***

**MR. SK. IRSHAD \*\***

**Abstract:** *Strategic management accounting is a theory and practice of accounting that looks at an organization's cost position, cost advantages and product differentiation in order to make market decisions. The value chain is a systematic approach to examining the development of competitive advantage. The*

*chain consists of a series of activities that create and build value. Value chain analysis refers to a structured method of analyzing the effects of all core activities on cost and/or differentiation of the value chain. With the growing division of labour and the global dispersion of the production of components, systemic competitiveness and so value chain analysis have become increasingly important. Value chain accounting is the combination of value chain analysis and accounting theory. Value chain accounting is an important part of value chain management and a further development of strategic management accounting. Value chain accounting is a new approach on accounting subject which is combined by the theories of value chain management, supply chain management, accounting management and information technology. From the analysis about value chain theory and strategic management accounting theory, this paper proposes an accounting management framework based on value chain analysis called value chain accounting.*

**Key words:** *Value Chain Analysis, Value Chain Costing, Value Chain Accounting.*

## INTRODUCTION

Organizations in both the manufacturing and service sectors have faced dramatic changes in their business environment and many new management methods and manufacturing technologies have come into being in the fierce competitive environment in which international enterprises try to survive. There has been a significant reduction in product life cycles arising from technological innovations and the need to meet increasingly discriminating customer demands. To compete successfully in today's highly competitive global environment companies have made customer satisfaction an overriding priority. They have also adopted new management approaches, changed their manufacturing systems and invested in new technologies. These changes have had a significant influence on management accounting systems. The theory of value chain has brought about a new idea for enterprise management. In recent years, it is researched how to meet the needs for management by means of studying the

value chain of enterprises. In a sense, the value chain management has penetrated into human mind, concerning with every aspect of enterprise management, such as accounting of value chain, human resource management of value chain, and cost management of value chain. Value chain accounting by means of information technology, sets financial accounting and management accounting in the integration, the nature of this kind of value chain management activities determines the multi-function of accounting value chain. This paper is organized value chain in strategic management.

**Objective of the Study:** The Purpose of the paper is to study the implementation of Strategic Management accounting based on value chain analysis to empowering the business activities and defining the value chain and cost analysis systems.

**Methodology of the Study:** For methodology an extensive literature review of secondary data from sources have been related to the stated objectives of the study. This study is based on

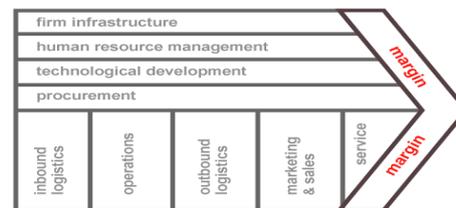
secondary data resources. The main resources of information are journals, magazines, newspapers, text books and online sources etc.

## THE VALUE CHAIN CONCEPT

The value chain is a concept from business management that was first described and popularized by [Michael Porter](#) in his 1985 best-seller, *Competitive Advantage: Creating and Sustaining Superior Performance*.

A value chain is a chain of activities that a firm operating in a specific industry performs in order to deliver something valuable (product or service). A business unit is an appropriate level for construction of a value chain, not divisional or corporate level. Every company's business consists of a collection of activities undertaken in the course of designing, producing, and marketing, delivering, and supporting its product or service. A company's value chain consists of the linked set of value-creating activities the company performs internally. The value chain includes a profit margin because a markup over the cost of performing the firm's value-creating activities is customarily part of the price (or total cost) borne by buyers—a fundamental objective of every enterprise is to create and deliver a value to buyers whose margin over cost yields an attractive profit. These activities can be classified generally as either primary or support activities that all businesses must undertake in some forms. The basic idea is that a firm's activities

can be divided into nine generic types which are linked to each other and to the activities of its suppliers, channels and buyers. Five are the primary activities, which are directly concerned with the activities that create the products, market them deliver them and service, each of these primary activities has a linkage with support activities that can be useful to raise their effectiveness or efficiency. Four are the support activities that cross between the primary activities. It is shown in Figure:



**Figure: Porter's Value Chain**

- 1. Inbound Logistics:** Activities, costs, and assets associated with purchasing fuel, energy, raw materials, parts, and components, merchandise, and consumable items from vendors; receiving, storing, and disseminating inputs from suppliers; inspection; and inventory management.
- 2. Operations:** Activities, costs, and assets associated with converting inputs into final product form (production, assembly, packaging, equipment maintenance, facilities, operations, quality assurance, and environmental protection).
- 3. Outbound Logistics:** Activities, costs, and assets dealing with physically distributing the

product to buyers (finished-goods warehousing, order processing, order picking and packing, shipping, delivery vehicle operations, establishing and maintaining a network of dealers and distributors).

**4. Marketing & Sales:** Activities, costs, and assets related to sales force efforts, advertising and promotion, market research and planning, and dealer/distributor support.

**5. Service:** Activities, costs, and assets associated with providing assistance to buyers, such as installation, spare parts delivery, maintenance and repair, technical assistance, buyer inquiries, and complaints.

#### **Primary activities:**

**1. Firm Infrastructure:** Serves the company's needs and ties its various parts together, it consists of functions or departments such as accounting, legal, finance, planning, public affairs, government relations, quality assurance and general management.

**2. Human Resource Management:** Consists of all activities involved in recruiting, hiring, training, developing, compensating and (if necessary) dismissing or laying off personnel.

**3. Technology:** Pertains to the equipment, hardware, software, procedures and technical knowledge brought to bear in the firm's transformation of inputs into outputs.

**4. Procurement:** Is the acquisition of inputs, or resources, for the firm. Disaggregating a company's operations into primary and secondary activities exposes the major elements of the company's cost structure. Each activity in the value chain gives rise to costs and ties up

assets; assigning the company's operating costs and assets to each individual activity in the chain provides cost estimates and capital requirements. The combined costs of all the various activities in a company's value chain define the company's internal cost structure.

#### **VALUE CHAIN ANALYSIS**

Value chain analysis is a mechanism that facilitates the optimization and coordination of interdependent activities in the value chain, which may cross organizational boundaries and accounting information is an important constituent of value chain analysis. The central idea of the analysis is to break up "the chain of activities that runs from basic raw materials to end-use customers into strategically relevant segments in order to understand the behavior of costs and the sources of differentiation". Value chain analysis gives us a framework of activities those inside and outside a firm, and makes the competitive strength of the firm combine together. A company to assess and improve its strategic position by following.

- ✓ Improving quality by providing better understanding of customer requirements when products are assembled from multiple input sources (e.g. cars, computers...).
- ✓ Providing a way to evaluate competitive cost position and thereby improving strategic positioning.
- ✓ Reducing time when there is a great deal of interdependency between the participants in a value chain.

- ✓ Reducing cost by focusing attention on areas needing cost reduction and by reconfiguring the value chain.

### **Principal stages of value chain analysis for strategic cost management**

1. Identify the value chain activities and disaggregate the firm into separate activities.
2. Establish the relative importance of different activities in the total cost of the product.
3. Compare costs by activity.
4. Identify cost drivers.
5. Identify linkages and interrelationships in the value chain.
6. Identify opportunities for reducing costs and/or improving value.

### **VALUE CHAIN ACCOUNTING**

The generation of the value chain is the result of the competition that enterprises pursue different competitive strategies. The value chain was the combination of a series of associated valuable activities of the enterprise. The “cost chain” corresponding with the valuable activities exists on the value chain. Starting from the expense devotion for the product R&D, the preparation before the production, and various consumptions in the making process, until to establishing the sales channel, marketing and distribution output and expenses after service, this “cost chain” supports various activities on the value chain to be developed effectively to increase the values of the product and fulfill clients’ demands. As the comprehensive consumption index of the value

chain activity, the cost is represented by a sort of form of “negative increment”. The value chain cost management is to manage the “cost chain” on the value chain of the product, eliminate the activities without increments or with low efficiencies, reduce the amount of “negative increment”, minimize the costs on the whole chain, enhance the efficiency of the whole supply chain, and make the enterprises on the chain all win.

### **Functions of value chain accounting:**

1. Real-Time Reflect Function of Value Chain Accounting
2. Real-Time Multidimensional Control Function of Value Chain Accounting
3. Prediction Function of Value Chain Accounting
4. Decision-Making Function of Value Chain Accounting

### **Value Chain Costing As a Strategic Management Accounting Tool**

Strategic management accounting, is an attempt to shift the perceptions of accountants and non-financial managers from an inward-looking to an outward looking one, recognizing the need to look beyond the business along the value chain to its suppliers and customers and to seek ways of achieving and maintaining competitive advantage. The notion of strategic management accounting is linked with business strategy and maintaining or increasing competitive advantage. Wilson defined strategic management accounting as an approach to

management accounting that explicitly highlights strategic issues and concerns setting management accounting in a broader context in which financial information is used to develop superior strategies as a means of achieving sustainable competitive advantage.

In the management accounting literature the value chain costing is regarded as a core analytical tool of strategic management accounting. Value chain costing method represents a management accounting operationalisation of Porter's (1985) value chain analysis. The focus of this technique is external to the firm as it involves viewing the organization as a link in the chain of all value-creating activities associated with the provision of a product or service. Value chain costing has been used as a strategic management accounting tool, where costs are allocated to activities required to design, procure, produce, make, distribute, and service a product or to provide a service.

### **Contrasting features of value chain costing and Traditional management accounting systems**

Traditional management accounting systems have the inability to adequately support a value chain analysis. Traditional management accounting systems are based on the internally oriented concept of value added, which hinders firms in taking advantage of the opportunities to coordinate interdependence in the value chain. By starting cost analysis at the point of purchase, possibilities to exploit linkages with suppliers are missed, and by stopping the cost analysis

already at a completed sale, possibilities to exploit linkages with customers are missed. The value added perspective focuses on maximizing the difference between the firms purchasing costs and selling price. Thereby it ignores linkages in the wider value chain, such as the causes of this purchasing price, the costs of activities related to the product, and the consequences of the product for the buyer's activities. Value chain costing assesses competitive advantage by determining the strategic advantages and disadvantages of full range of activities that shape the products which have been supplied to the ultimate user. These activities include not only inside business activities but also outside value activities. Businesses must know about both their own and their competitors' cost of value chain. The achievement of this by using the traditional management accounting systems is not possible. Businesses should use value chain costing that view the costs from strategic perspectives. Traditional management accounting has been "value added-oriented" which is a very narrow approach in today's competitive environment. The value chain costing depends on "value creation". Moreover, the value chain costing also focuses on the outside of the businesses.

### **CONCLUSION**

The value chain costing and the value chain accounting perspectives, a company has to integrate and optimize its internal and external resources to obtain and enhance competitive advantages. Value chain analysis is a way of

assessing competitive advantage by determining the strategic advantages and disadvantages of the full range of activities that shape the final offering to the end user. By implementation of value chain costing, the combined costs of all the various activities in a company's value chain can define the company's internal cost structure. Value chain accounting sets financial accounting and management accounting in the integration, the nature of this kind of value chain management activities determines the multi-function of accounting value chain. In the management accounting the value chain costing is regarded as a core analytical tool of strategic management accounting. The value chain costing depends on "value creation". The company's internal accountants have moved beyond the traditional manufacturing cost approach to a more inclusive approach.

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\*Mr. B. Chakravarthi; Asst. Professor,  
Department of MBA, QIS College of  
Engineering and Technology, Ongole.

[chakravarthybachina@gmail.com](mailto:chakravarthybachina@gmail.com)

Mobile No. 98668 96779

\*\*Mr. SK. Irshad, Assoc. Professor & Head,  
Department of MBA, Guntur Engineering  
College, Guntur

E- Mail Id

[irshadnimran@gmail.com](mailto:irshadnimran@gmail.com)

Mobile No. 98855 44727

## Work Life Balance Among The Working Women In Private Sector Banks In Visakhapatnam City

DR.M.UMA DEVI\*  
DR.D.SUDHAKAR\*\*

**Abstract :** Women employment has become the symbol of economic viability and social status in modern society. The changes in the demographic background of women in terms of their family nature, educational background, culture and ethical values, women in occupation has become in indispensable element. Women's participation in modern occupations is relatively a recent phenomenon. Adjusting to the role of a housewife of one hand and that of working woman on the other exerts great pressure on

working women. These pressures can be increased by disapproving attitudes and undue expectations of other members of the family, threatening the marital adjustment of working women. Consequently, the woman is facing stress and strain. The objective of the present study is an attempt to dual role of the employees in private banks. Simple random sampling was adopted to select 90 employees among married women from different private banks. The present study has been confined Visakhapatnam city only.

**Key words: Family and Society level, Work Life Balance, Dual Role.**

## INTRODUCTION

Banking industry is one of the biggest industries in India. It is working under public and private sectors. A large number of both male and female employees are working in banks all over India. Today, women in the cities as well as villages are breaking their social psychological barriers and coming out to assume a variety of new responsibilities. The economic horizon of woman once confined to the domestic servanthood or labour on the farm has expanded considerably. Now, women from all shades of life started working in other fields. An important factor attracting more women to employment is the hard economic necessity, felt essential for generating their own resources along with men to provide a far better development and consumption base for the family. This attitude is conspicuous in the urban middle and lower middle classes who state that they are seeking employment for improving their standard of living. Indian families are undergoing rapid changes due to the increased pace of urbanization and modernization. Indian women belonging to all classes have entered into paid occupations. At the present time, Indian women's exposure to educational opportunities is substantially higher than it was some decades

ago, especially in the urban setting. This has opened new vistas, increased awareness and raised aspirations of personal growth. This, along with economic pressure, has been instrumental in influencing women's decision to enter the work force. Most of the studies on married women employees in India have reported economic need as primary reason for working.

Work-life balance is used to describe the equilibrium between responsibilities at work and responsibilities outside paid work; having a work-life balance means that this equilibrium is in the right position for the individual concerned. For some people it means spending more time in paid work and less time at home, while for others it means ensuring that paid work does not infringe on time needed for other responsibilities. It is about managing our work commitments with career goals, and our responsibilities at home and the wider community. Work life and personal life are inter-connected and interdependent. Work-life and personal life are the two sides of the same coin. People have to make tough choices even when their work and personal life is nowhere close to equilibrium. Today, Industries have realized the importance of the work life balance of their employees. Organizations are setting up policies for maintaining a work life

balance. They are introducing innovative methods to keep their employees happy and satisfied, as it makes office a better place to work and also impact positively on productivity. This write up tries to bring out the meaning of work life balance, their causes, their effects on organizations and the methods, systems and processes to reduce the impact of work-life imbalance. The women employees started to perform, the benefits should be passed to individual, organization they belong, society they constitute and family they commit. Especially the roles of women employees in service sector are imperative in the cadres of middle and low level. In this aspect, banking is the sector where the inculcation of women employees in recent period is very high. As far as banking sector in India is concerned, women are being given centre responsibility and this is the industry like education where the employment and career opportunities are high. Women in nature have the caliber of talking and serving to people with care and empathy. The quality work life encompasses the working environment, condition, attitude, relationship, competency, support from family and society. When women feel favourable about all these attributes, their effective quality work life will have an impact on their personal, occupational, social and family aspects.

### **SOCIETY LEVEL**

Changes in the structure of economy in the productive function contribute largely to the improved status of women. Studies have shown that industrialization is the main responsible

factor for the change towards egalitarian relations within and outside the family. With the upsurge in women employment, came the most dramatic alteration in the image of the woman and in the twenties there was the emergence of white collar class with a large part consisting of women. Women's participation in the workforce has been increasing all around the world (Adler and Izraeli, 1994; Davidson and Burke, 2004), which has led to changes in the roles of women and men in society. According to the Expansionist Theory (Barnett and Hyde, 2001), gender-roles are expanding: women are more active in professional work life, whereas men are more active in family life. As the consequence of this trend, maintaining a balance between work and family responsibilities has become a challenge for working people. Now-a-days, it came to be realized that the working woman became an asset to middle class families.

### **FAMILY LEVEL**

For a long time it was the men who worked to make money while women took care of the household responsibilities and accomplished the tasks of raising the children (Abbott, Wallace, & Tyler, 2005). However the scenario has changed. Davidson and Burke further noted that this increase has significantly effects families. Women's involvement in paid work contributed to the rise of dual-earner family and has become the norm in many societies. These changes may impose some significant impact on women in implementing their roles at work place and in the family. An increasing number of articles have promoted the importance

of work–life balance. This highlights the current concern within society and organizations about the impact of multiple roles on the health and well-being of professional women and its implications regarding work and family performance, and women's role in society.

### PERFORMANCE OF DUAL ROLES

Working outside and inside the house formed two central domains in women's life, and each domain contains its own duties. According to Pleck (1977), work and family are two fundamental and interdependent systems for dual-career life that inconsistency in any one system may consequently influence the other one as well. These bidirectional influences of work and family can lead to two types of conflict, namely, work interference with family and family interference with work. Women with multiple roles reported better physical and psychological health than women with less role involvement. In other words, they cherished motivational stimulation, self-esteem, a sense of control, physical stamina, and bursts of energy.

Kandel *et al.* studied the nature of specific strains and stresses among married women in their marital, occupational and house work roles. They found that strains and stresses are lower in family roles than in occupational and household roles among the married women. These have more severe consequences for the psychological well-being of women than occupational strains and stresses. Strains predicted distress through role-specific stress, with strains deriving from contribution of role-specific stress. Makowsk studied psychosocial

determinants of stress and well-being among working women. The work-related stressors was evidently greater than that of the stressors associated with the family function, although the relationship between family functioning, stress and well-being. Campbell *et al.* studied the effects of family life on women's job performance and work attitudes. Gender roles are shared cultural expectations which are performed by individuals based on their socially-identified gender (Eagly & Karau, 1991; Kidder, 2002). People, normally apply such expectations to characterize themselves and others; therefore, such factors lead individuals toward their own individual and more general social identities. These categorizations play essential part on individuals' lives and relationships (Donaghue & Fallon, 2003; Williams, Consalvo, Caplan, & Yee, 2009).

### NEED FOR THE STUDY

The service sector has been playing an important role in the economic development of various countries. Majority of developing countries and almost all developed countries emerged as service economies. In service sector, banking industry is playing a major role. The present study in private banking sector depicts that work load with the dual role of responsibilities are vested on the working banking employees in their day to day activities. The role played by the working employees is so significant in maintaining the basic purpose of the private banking that the question of their work life balance from their job can never be ignored. Extensive research has been done on role stress

among employees but very few studies have been done on work life balance in bank employees.

### OBJECTIVE OF STUDY

The present study has been conducted in Visakhapatnam with the following objectives:

1. To analyze the dual role of the private bank employees
2. To give appropriate suggestion for the development of banks through employees.

### METHODOLOGY

To achieve the objectives of the study, necessary data was collected from primary source. However, the study is mostly based on primary data. Primary data is collected by oral interviews and by serving a structure questionnaire to selected bank employees. The questionnaire containing questions on various dimensions of work life balance. The study was carried out to have an in depth understanding of the work life balance level among employees. Simple random sampling was adopted to select 90 married women above 20 years of age different private banks. The sample of employees was selected on the basis of convenient sampling from Visakhapatnam.

### LIMITATION OF THE STUDY

The views of employees were obtained from Visakhapatnam only. These views may not be attributed to the employees of the Visakhapatnam because of economic, social and cultural differences in the attitude and

preferences. The questionnaire method has the limitation of providing the limited information.

### ANALYSES

An attempt is made to study the work life balance of women bank employees working different private sector banks located in Visakhapatnam city.

#### Family type

Type of family	No. of respondents	Percentage
Nuclear	57	63.3
Joint	33	36.4
<b>Total</b>	<b>90</b>	<b>100</b>

The above table deals with the type of family of the respondents. Majority of the respondents 57 (63.3 percent) are from the nuclear type of families and the remaining 33 (36.4 percent) are from joint type of families. It should be mentioned here that the proportion of nuclear type of families is usually more in cities like Visakhapatnam. In fact, the nuclear type of family set up might have facilitated for the women to go for employment or otherwise, the women employment might have lead to the formation of nuclear type of family. Both situations are common in the case of women who are employed.

#### Salaries

Salaries	No. of respondents	Percentage
Strongly satisfied	16	17.8
Satisfied	41	45.6
Dissatisfied	24	26.6
Strongly dissatisfied	9	10.0
<b>Total</b>	<b>90</b>	<b>100</b>

The above table reveals that salary is the most important element in the condition of the employment. As pointed out earlier, organizational morale cannot be maintained at high level without a fair, equitable and sound remuneration program. Salaries are the most important factor that leads the life. The salary paid by private banks strongly satisfied 16 (17.8 percent) respondents and satisfied 41(45.6 percent) respondents. The remaining respondents are 24 (26.6 percent) and 9 (10.0 percent) dissatisfied and strongly dissatisfied respectively. Most of the respondents depend on nuclear families. The respondents are just satisfied in salary of the private banks. The respondent's life style is smoothly running. Most of the women employees from private banks are satisfied with their salary.

#### Working conditions

Working conditions	No. of respondents	Percentage
Pleasant	25	27.8
Good	34	37.8
Alright	20	22.2
No comment	11	12.2
<b>Total</b>	<b>90</b>	<b>100</b>

The above table clearly shows that the respondent women employees are good with the working conditions in private banks. When 10 (12.2 percent) respondent have not commented, 34 (37.8 percent) felt good with the working environment. While 25 (27.8 percent) and 20 (22.2 percent) respondents opined pleasant and alright respectively with the working environment in their respective work place. The working conditions in the banks are altogether different and there are uniform rules for both men and

women. The problems of working women in banking sector are not many.

#### Working hours

Working hours	No. of respondents	Percentage
convenient	30	33.3
Not convenient	46	51.1
No comment	14	15.6
<b>Total</b>	<b>90</b>	<b>100</b>

The above data shows that 46 (51.1 percent) respondents felt that the stretch of duty is not convenient. While 30 (33.3 percent) respondents felt that the working hours are convenient, 14 (15.6 percent) respondents refused to comment on this point. Though majority of the respondents feel the stretch of duty is not convenient, the employees will have to spend longer hours at the work place because of their responsibilities as well as the nature of work they perform at the private banks. The employees subjected to mental and physical stress very often due to their responsibilities as well as to the pressing role conflict.

#### Children education

Education	No. of respondents	Percentage
Better education	33	36.7
Hampered	28	31.1
No changes	29	32.2
<b>Total</b>	<b>90</b>	<b>100</b>

The above table explains the education of the children of bank employees working in private sector. Majority of respondents 33 (36.7 percent) expressed that better education is being provided to their children. While 28 (31.1 percent) respondents hampered and 29 (32.2 percent) respondents felt that there is no change in children education because of their

employment. The respondents covered in the present study reported that they are satisfied with the amount of time they devote for their children education.

#### Relationships with colleagues

Relationship	No. of respondents	Percentage
Very cordial	18	20.0
Cordial professional	36	40.0
Professional and competitive	24	26.7
Strained	12	13.3
<b>Total</b>	<b>90</b>	<b>100</b>

The above table shows that majority of the respondents 36 (40 percent) maintain cordial professional relationship with colleagues. While 18 (20 percent) respondents maintained very cordial relationship, 12 (13.3 percent) respondents feel the relationship strained. 24 (26.7 percent) women employees maintained only professional relationship with colleagues. Having cordial relationship with colleagues promotes to develop better team work and smooth work environment.

#### Family and husband support

Support	No. of respondents	Percentage
Moral	35	39.0
Mentally	24	26.6
Physically	18	20.0
Financially	13	14.4
<b>Total</b>	<b>90</b>	<b>100</b>

The above table reveals the family and husband support at home and employment. 35 (39.0 percent) responded women employees had moral support and 24 (26.6 per cent) respondents mental support from the family members. Remaining 13(14.4 percent) and 18 (20.0 percent) women employees got financial

and physical support respectively from their members.

#### Spouse support in households work

House hold work	No. of respondents	Percentage
Always	28	31.1
Some times	39	43.3
Not support	23	25.6
<b>Total</b>	<b>90</b>	<b>100</b>

The above data pertaining to spouse support and help in house hold work reveals that 28 (31.1 percent) respondents always received support and help of their spouse in their house work. When 39 (43.3 percent) respondents got support on and off, i.e, sometimes, 23 (25.6 percent) respondents never have received any support and help of their spouses in house hold work. The attitudes of wives towards their husbands' assumption of domestic duties discourages even if the husband are willing to help. An ideal wife and mother demonstrates her competence by maintaining an efficient household that meets the expectations of other family members especially their husbands. Wives tend to believe that their husbands are incompetent to perform certain housework and this cultivated incompetence has helped the husbands to neglect the housework without guilt. The spouses support and help increased among dual career couples indicate the importance of spousal support.

#### Dual role conflicts

Conflicts	No. of respondents	Percentage
Neglect of children education/husband	42	46.7
Not able to spend enough time with family/friends and relative	27	30.0
Not able to attend recreation	21	23.3
<b>Total</b>	<b>90</b>	<b>100</b>

The consequences due to dual work performances are presented in the above table. Nearly half of the respondents 42 (46.7 percent) women employees are neglecting their children education. However, as 27 (30.0 percent) respondents felt that they are unable to spare time to spend with the family relatives and friends because of their dual role, 21 (17.8 percent) women employees expressed their inability to attend any short of recreation not enjoyment due to their job. Women's employment brings in certain changes in the behaviour of the employed women with the family. Employment of women also brings change in their relationship with other members of the family, especially their husbands. The working women are always subjected to some tension in their assertive role with regard to certain decision-making of family issues. This largely depends on the extent of her relationship in view of her co-provider role with her husband and the degree of respect she commands from the members of the family.

#### Transfer in employment

Transfer	No. of respondents	Percentage
Children education	41	45.6
Accommodation	36	40.0
Transport	13	14.4
<b>Total</b>	<b>90</b>	<b>100</b>

The above table reflects the obstacle due to the transfer in employment. 41 (45.6 percent) respondent women employees revealed that they are facing the problems in children education due to their transfers. Accommodation also another major problem faced by 36 (40.0 percent) respondents while 13 (14.4 percent) expressed that they are facing

problems in transport of all household while transferred from one place to another.

#### Coping the stress

Stress	No. of respondents	Percentage
Electronic home appliances	15	16.7
Servants	23	25.6
Family and relative support	19	21.1
Self help and time management	33	36.6
<b>Total</b>	<b>90</b>	<b>100</b>

The mechanism applied by the respondent women bank employees to cope the stress is presented in the above table. The highest number of respondents 33 (36.6 percent) expressed that they depend on the self-help and time management for coping of the stress. Next by appointing servants 23 (25.6 percent) respondent women employees are succeeding their work at home and 19 (21.1 percent) respondents depend on their family and relative support for coping their stress. 15 (16.7 percent) respondents use electronic home appliances for work at home for cope up the stress.

#### Adjusted dual role

Adjusted dual role	No. of respondents	Percentage
Fully	31	34.4
Partially	14	15.6
Both are conflicting	45	50.0
<b>Total</b>	<b>90</b>	<b>100</b>

The table explains how the respondents adjusted to dual role. The success to adjust in between dual role is quite interesting. 31 (34.4 percent) respondents positively expressed that they adjusted fully to dual role. But majority of respondents 45 (50.0 percent) revealed that both employment and house hold work are conflicting and 14 (15.6 percent) respondents could adjust

partially to dual role. The employed women have to perform dual roles, which needs a lot of adjustment. Sometimes, these women are caught up with role conflict at the time of priorities matter.

**Strain due to dual role**

Strain	No. of Respondents	Percent
Physically	20	22.2
Mentally	25	27.8
Both	45	50.0
<b>Total</b>	<b>90</b>	<b>100.0</b>

The data on physical and mental strain due to the dual role is presented in the table. Most of the respondents 45 (50.0 percent) revealed that they are experiencing both mental and physical strain due to the dual role. Then 25 (27.8 percent) respondents women bank employees express that they are encountered the problems of mental strain and physical strain 20 (22.2 percent) due to dual role. And this both physical and mental component also increase the strain in dual role and no opinion was also revealed by some body, perhaps they are newly entered in the profession and could not experience any family obligations.

### Conclusion

It is critical for work and family research to fully understand the conditions under which the married women employees experience conflict between their roles. Employment, especially employment of women will have its effect on other spheres of life. Impact of women's employment mainly affects the education and care of the children because

women working in banks find less time to spend at home and take care of their children. The household work is affected because of the limited time available for them to attend the household work. The participation in social and family gatherings gets reduced because of their work participation through their reduced interaction with friends and relatives. The working women need to make so many adjustments in order to maintain a smooth atmosphere and also to succeed in performing their dual roles. On the other hand, for every woman there is one more background to manage, which is home and personal life. Today with increasing demands at work place, the interface between work life and personal life assumed significance which demands more attention. The pressures of the work or personal life can lead to stress. According to studies, it has been found that such situation affects person's health both physiologically and psychologically.

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<sup>1</sup>Associate Professor, Department of Commerce and Management Studies, Andhra University, Visakhapatnam, Andhra Pradesh, Pin code: 530003, Email:umancharla@yahoo.in

<sup>2</sup> Academic Consultant, School of Commerce and Management, Dravidian University, Kuppam, Chittoor District, Andhra Pradesh, Pin code: 517426, Email:dchinnu.sudha@gmail.com

## Performance of Fertilizer Industry - A Comparative Study

PRASADA RAO BONDADA\*  
K.V. RAMANA MURTHY\*\*

**ABSTRACT:** *The nature of Indian economy is the mixture of private and public sectors. The objective of mixed economic system is to create domestic surplus especially in the field of fertilizers and to promote global competitiveness. Fertilizers are the essential inputs to the agriculture in India. Nagarjuna Fertilizers and Chemicals Limited is the major urea producer for the farming community of Andhra Pradesh and plays a key role in the fertilizer industry of India and abroad. But in real-time the actual performance of these sectors except cooperative sector and Nagarjuna Fertilizers and Chemicals Limited in private sector is not up to the intended performance. Hence present study is focused on comparing the performance of fertilizer*

*industry (sector wise). The research methodology for this study includes collection of secondary data, classification and tabulation of data and diagrammatic and graphical representation of data. The above data is analyzed and report to conclude that the performance of the fertilizer industry except cooperative sector and Nagarjuna Fertilizers and Chemicals Limited in private sector is not up to the intended performance. The industry can fill the gap between the intended and actual performance by efficient execution of the suggestions made in this report.*

**Key words – fertilizer industry, performance, supply chain management**

## I. INTRODUCTION

This chapter of Comparative Study of Fertilizer Industry (Sector wise) is taken to understand the performance of various sectors like public, private and co - operative sectors in the industry and to compare the performance of NFCL with other private companies in the Private sector as they are the key players of the supply chain management of fertilizer industry to the agriculture the primary sector of India.

## II. LITERATURE REVIEW

The supply chain, also known as value chain is a concept from business management that was first described and popularized by Michael Porter in his book, *Competitive Advantage: Creating and Sustaining Superior Performance*. Porter, M. E. (1985)

Vittal (1984) has brought out the strategies of cost reduction in logistics of fertilizer distribution in a lucid way. He contends that production and distribution of fertilizers in the most efficient manner is an issue of prime national importance. While evolving strategies for cost reduction, the skewed distribution of fertilizers (which has led to skewed consumption) has to be taken in to consideration.

In his study Rama Swamy (1985) covers major fertilizer marketing functions. It describes the process of fertilizer marketing in India as existed prior to 80s. It has brought out the Strengths, Weakness, Opportunities and the Threats (SWOT) of the fertilizer marketing system. It also brings out the need and feasibility of containing the marketing costs in the fertilizer industry.

A study conducted by H.K.LakshmanRao at Madras Fertilizers Ltd. (1986) Public Distribution System in fertilizer adversely affected an orderly development of consumption. Small to Medium sized holdings farmers were unable to adopt a consistent approach with regard to usage of fertilizer products due to uncertainty of the availability of the products of their choice. According to the Sivaraman committee, appointed by Government of India (GOI) for studying the marketing aspects reported in the mid 70s that the marketing and distribution of fertilizers were not up to the expectations and the cooperatives which play a major role in the distribution lacked marketing approach.

According to Saleem Ahmed, Chowdhury and others (1992) Fertilizer demand projections and also the agricultural productions based on time series data on past consumption trends of fertilizer consumption and food production

estimates for south eastern countries. They contend that time series analysis is best suited for short term forecasting in fertilizers. According to them "To meet the year 2000 projected agricultural production targets would grow by 45% in case of India, and would double in respect of Bangladesh & Nepal and would grow about 77% in case of Pakistan."

According to SathyaRao & Sandhya (1994) in their research paper the distribution system of fertilizers in Andhra Pradesh based on secondary data of pertaining to 30 fertilizer plants, located in different states, supplying various fertilizer products such as Urea, Ammonium Sulphate, CAN, SSP, DAP, Complex fertilizers to 22 districts of Andhra Pradesh. A distribution model based on L.P. has been adopted for identifying the districts and the plants on a least transportation cost by rail. A saving of 18% has been arrived at based on this model.

According to Lambert and Cooper (2008) operating an integrated supply chain requires a continuous information flow. However, in many companies, management has reached the conclusion that optimizing the product flows cannot be accomplished without implementing a process approach to the business.

In the study conducted by Prasada Rao Bondada (2014) it was found that in the fertilizer industry over 17.12 % of installed capacity is underutilized is due to irregular supply of inputs in due time. And at the same time it was found that more production of Urea is possible than its installed capacity and the company is performing well in conversion of ammonia to Urea.

### III. NEED FOR THE STUDY

The specific need for the study of comparing the performance of fertilizer industry (sector wise) is to study and understand the performance of various sectors like public, private and co - operative sectors in the industry and to compare the performance of NFCL with other private companies in the Private sector as they are the key players of the supply chain management of fertilizer industry to the agriculture the primary sector of India.

**Statement of the problem:** The supply chain in fertilizer industry is facing many problems including the scarcity in inputs like natural gas and naphtha which in turn results in its output availability of fertilizers. It is found that there is large gap between the demand from the farmer and the supply of fertilizers from the industry. Hence the present study focused on *comparing the performance of fertilizer industry (sector wise)*.

### IV. OBJECTIVES

1. To study the supply chain of the Nagarjuna Fertilizers and Chemicals Limited
2. To understand the performance of various sectors and to compare the performance of NFCL with other private companies
3. To make suggestions necessary for improvement.

### V. RESEARCH METHODOLOGY

The methodology for this study includes collection of secondary data, classification and tabulation of data and diagrammatic and graphical representation of data. Finally the above data is analyzed and reported

**5.1 The secondary data:** the secondary data was collected from organization records, management reports, the department of fertilizers and the Fertilizer Association of India and the special project reports to understand the present state of supply chain management.

**5.2 Tools for data analysis:** The various tools used in processing and analysis of data were done with the help of the StatistiXL (Statistical Package for Social Sciences) and STATISTICS XL computer software. MS Excel is used to calculate mean and other and drawing of tables, charts and the figures.

## VI. RESULTS & DISCUSSION

**Table 6.1 Sector -Wise Target and Actual Production (MTs) Over 10 Years**

Fi na nc ial Ye ar	Public sector			Cooperative sector			Private sector			NFCL		
	T ar g e t	A c t u a l	% G a p	T ar g e t	A c t u a l	% G a p	Ta r g e t	A c t u a l	% G a p	T ar g e t	A c t u a l	% G a p
20 01	8 6	7 3	- 1	7 2	7 6	5 .	20 75	16 95	- 1	1 1	1 1	- 0
20 02	8 2	7 5	- 8	7 2	7 6	5 .	20 75	16 95	- 1	1 1	1 1	- 0
20 03	8 2	7 5	- 8	7 2	7 4	3 .	19 49	16 72	- 1	1 1	1 1	- 0
20 04	8 2	7 7	- 6	7 6	7 9	4 .	19 75	17 93	- 9	1 1	1 3	1 6
20 05	8 0	7 5	- 6	7 6	8 2	6 .	18 82	17 95	- 4	1 1	1 3	1 5
20 06	8 2	7 5	- 7	9 4	8 7	- 7	18 59	19 93	7 .	1 1	1 3	1 0
20 07	7 7	6 9	- 1	9 9	8 5	- 1	19 72	17 78	- 9	1 1	1 3	1 3
20 08	7 6	7 1	- 6	9 3	8 9	- 5	19 81	17 09	- 1	1 4	1 3	1 3
20 09	7 4	7 6	3 .	9 4	9 9	5 .	20 12	19 15	- 4	1 4	1 4	- 0
20 10	3 0	3 0	- 0	4 0	4 4	9 .	89 04	78 03	- 1	6 8	6 9	1 .
To tal	7 5	6 9	- 7	7 9	7 9	0 .	18 67	16 83	- 9	1 1	1 2	5 .

\* Apr2010-August2010

Source: Department of Fertilizers, New Delhi

## FERTILIZER INDUSTRY VS NFCL PERFORMANCE ANALYSIS

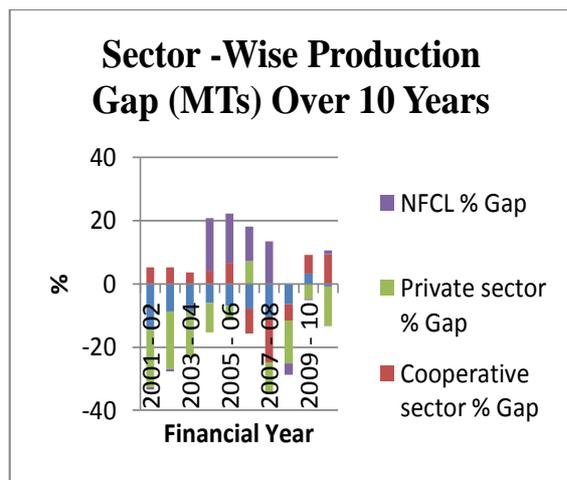
**INTERPRETATION:** Table 6.1 shows Sector - Wise Target and actual Production for 10 Years. The actual performance of co operative sector for 10 years is 79555.1 MTs which is 132 MTs more than its intended production i.e. 79423.1 MTs this is better than the remaining two sector. The 2<sup>nd</sup> best is the performance of Public sector as its target performance is 75436.6 MTs and its actual performance is 69976.5 MTs. The least of all is the performance of private sector its actual performance is 168300.6 MTs against to its intended performance 186756.3 MTs.

From this study it can be said that over 17.12 % of capacity is underutilized. It can be improved when the policies of the govt. are implemented effectively. For the government intention is to go ahead with a new investment strategy for the fertilizer sector, especially for urea. This policy seeks to create a 1.5 million-tons capacity for the production of urea over a five year-period. The new policy may provide gas linkage for up to 75 per cent of new capacity created from domestic gas resources, while the rest will have to be met through imports. The Government may provide a subsidy for the price differential between domestic and imported gas.

The proposed policy is for both Greenfield (new plants) and brown field plants, i.e. capacity addition to existing plants or revival of old or

closed plants. The proposed policy is based on the current availability of gas within the country and rising trend in global gas prices. The new policy is expected to be announced in the Budget for 2012-13 and then the issue will be placed before the Cabinet for a final decision.

**Chart 6.1 Sector wise Production Gap (MTs) for 10 years**



**Table 6.2 - NFCL Target and actual Production for 10 Years**

Financial Year	Target	Actual	% gap
2001 - 02	1195.0	1186.2	-0.74
2002 - 03	1195.0	1186.2	-0.74
2003 - 04	1194.6	1193.8	-0.07
2004 - 05	1194.6	1392.3	16.5
2005 - 06	1194.6	1379.3	15.5
2006 - 07	1194.6	1324.0	10.8
2007 - 08	1194.6	1354.2	13.4
2008 - 09	1429.5	1378.0	-3.6
2009 - 10	1484.9	1480.1	-0.32
2010 - 11*	686.0	695.4	1.37
Total	11963.4	12569.5	5.07
* Apr2010-August2010			

Source: Department of Fertilizers, New Delhi

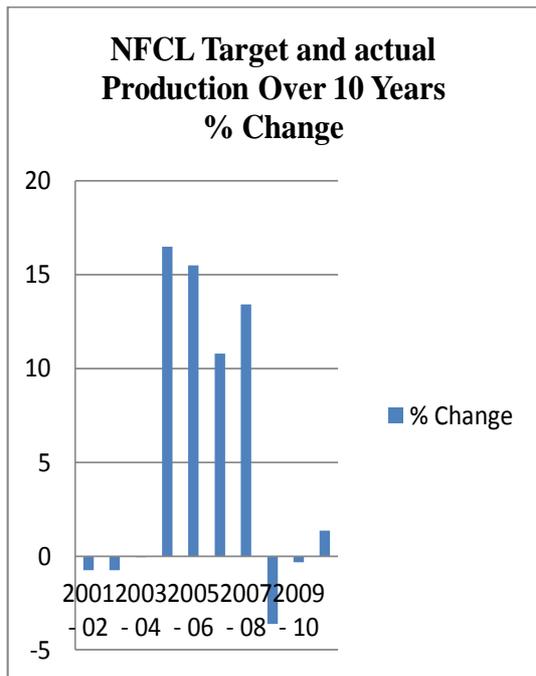
**INTERPRETATION:** Table 6.2 shows NFCL Target and actual Production for 10 Years. It illustrates in the years 2001 – 02, 2002 - 03, 2003 - 04, 2004 - 05, 2005 - 06, 2006 - 07, 2007 - 08,

2008 - 09, 2009 - 10 and 2010 – 11. The target performance is 1195.0, 1195.0, 1194.6, 1194.6, 1194.6, 1194.6, 1194.6, 1429.5, 1484.9 and 686.0 MTs respectively and the actual performance is 1186.2, 1186.2, 1193.8, 1392.3, 1379.3, 1324.0, 1354.2, 1378.0, 1480.1, and 695.4 MTs respectively.

It tells that only in the years 2001 – 02, 2002 - 03, 2003 – 04 and 2008 - 09, 2009 – 10 the company's performance is less against to its intended performance (output) but for a period of 10 years the company gained 5.07 % more production than its intended output.

Hence it is clear that the company's performance is good and it is suggested that the govt. should keep higher targets and make more allocations to the company so that the company can meet its targets at an ease.

**Chart 6.2 - NFCL Target and actual Production for 10 Years**



**Table 6.3 - Product Summary April to March Total target Product Vs actual Production for 10 Years**

Financial Year	Nitrogen (N)			Phosphorus (P)		
	Target	Actual	%	Target	Actual	%
2001 –	Na	Na	Na	Na	Na	Na
2002 –	11615.	10562.	-	4819.1	3906.4	-19
2003 –	11180.	10633.	-	4640.5	3630.8	-22
2004 –	11388.	11333.	-	4925.8	3996.8	-19
2005 –	11629.	11340.	-	4600.4	4167.3	-
2006 –	11448.	11577.	1.1	4820.8	4516.6	-
2007 –	11908.	10898.	-	4914.4	3806.7	-23
2008 –	11897.	10869.	-	4434.3	3464.4	-22
2009 –	12084.	11900.	-	4131.1	4320.9	4.5
2010 –	5145.8	4871.0	-	1974.4	1839.3	-
Total	98298	93986.	-	39260.	33649.	-14

\* Apr2010-August2010

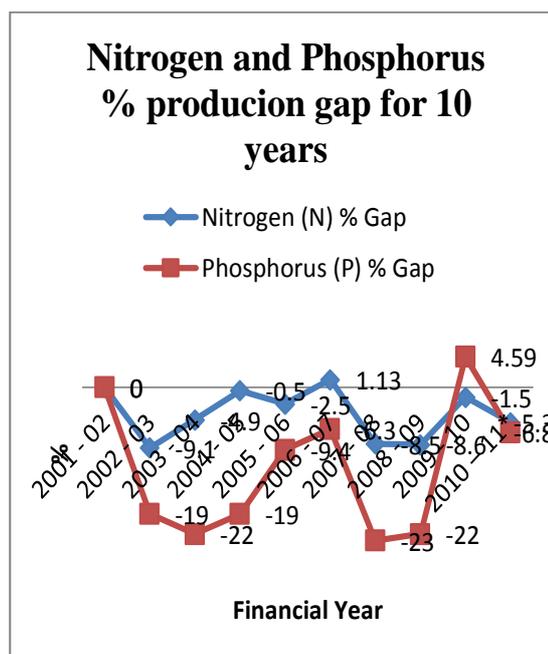
Source: Department of Fertilizers, New Delhi

**INTERPRETATION:** Table 6.3 gives Product Summary April to March: Total target Product Vs actual Production of Nitrogen (N) and Phosphorus (P) for 10Years. The actual production of Nitrogen (N) is 93986.5MTs which is 4.4% less than its intended production i.e.

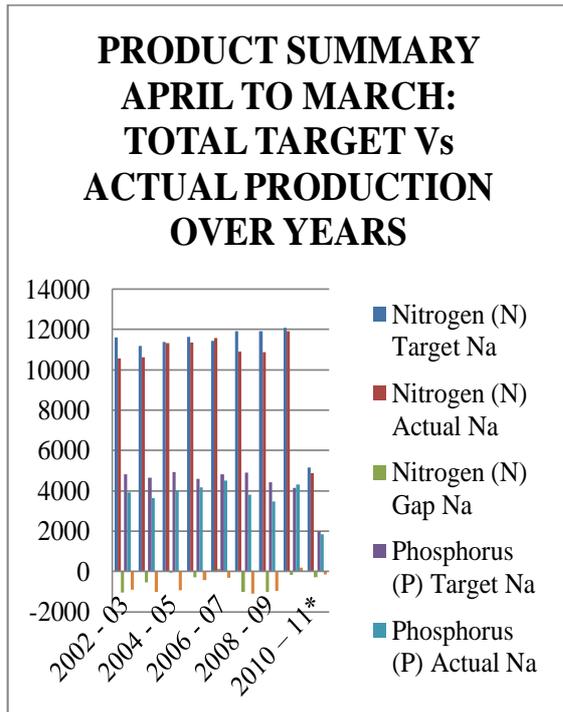
98298MTs this is better than the actual production of Phosphorus (P) with a shortage of 14% in production. The reasons for the high production for Nitrogen (N) than Phosphorus (P) are the replacement of feedstock natural gas to Naphtha. Shortage in Phosphorus (P) production indicates the shortage in the supply of NPK complex fertilizers.

Hence it is suggested that the govt. should make more Natural gas allocations to fertilizer industry so that the industry can meet its self-sufficiency.

**Chart 6.3.1 - Product Summary April to March Total target Product Vs actual Production for 10 Years**



**Chart 6.3.2 - Product Summary April to March Total target Product Vs actual Production for 10 Years**



2009	14	14	-0.	11	12	7.1	21	20	-3.	11	10	-0.
2010	68	69	1.3	50	39	-2	85	83	-2.	42	42	0.4
Total	11	12	5.0	89	92	3.5	117	117	1.9	92	91	-1.
* Apr2010-August2010												

Source: Department of Fertilizers, New Delhi

**INTERPRETATION:** Table- 6.4 presents comparison of NFCL and other Private Sector Plants Target and Actual Production of Urea ('000'MT) for 10Years (2001 – 11). The target and actual performance of NFCL is compared with the target and actual performance of TATA, CFCL, IGFL the major companies which are manufacturing urea. This illustrates 5.07% is the highest performance in the private sector is the performance of NFCL and the 2<sup>nd</sup> highest performer is TATA with 3.59% increase in the production. Next to TATA is CFCL with 1.98% increase in production and the least performer is none other than IGFL Jagdishpur with -1.66% in the production of urea.

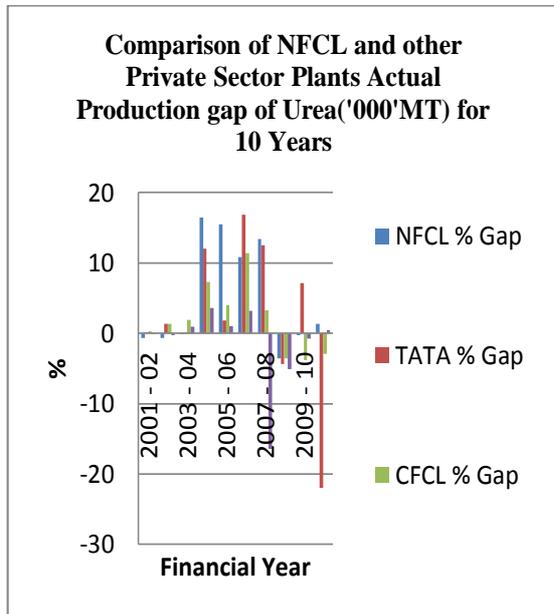
**Table 6.4 - Comparison of NFCL and other Private Sector Plants Target and Actual Production of Urea ('000'MT) Over 10 Years (2001 – 11)**

Fiscal Year	NFCL			TATA			CFCL			IGFL Jagdishpur		
	Target	Actual	% Gap	Target	Actual	% Gap	Target	Actual	% Gap	Target	Actual	% Gap
2001	11	11	0.	85	81	0.4	17	17	0.	88	85	0.3
2002	11	11	0.	85	86	1.1	17	17	0.	88	86	0.2
2003	11	11	0.	86	86	0.	17	17	0.	94	95	0.1
2004	11	13	6.	86	86	0.	17	18	5.9	99	98	0.1
2005	11	13	5.	46	68	8.7	88	99	11.2	66	70	5.0
2006	11	13	0.	86	80	6.9	17	19	11.8	99	90	9.0
2007	11	13	3.	95	80	16.3	19	19	0.	108	81	24.1
2008	11	13	3.	00	00	0.	19	19	0.	110	105	4.5

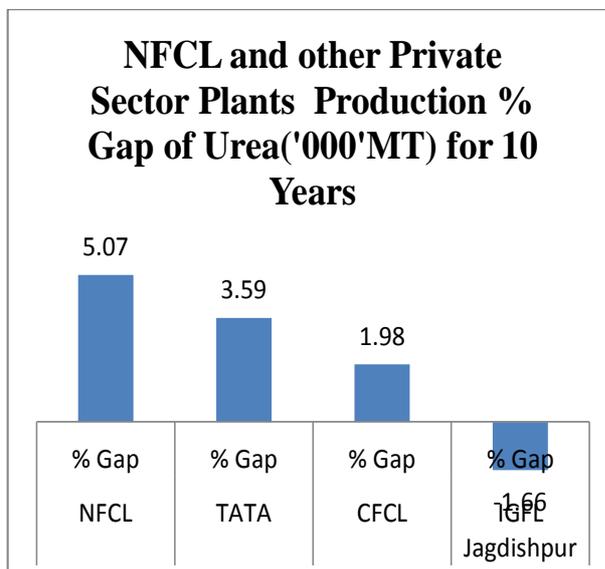
The 5.07% increase for NFCL in utilization of capacity is due to the company's advanced technology from Kellogg Brown and Root Process, HaldorTopsoe and also The Ministry of Environment and Forest (MOEF)-constituted expert committee for appraisal of chemical projects has decided to recommend grant of environmental clearance to phase III expansion project of Nagarjuna Fertilizers and Chemicals Limited.

**Chart 6.4 .1- Comparison of NFCL and other Private Sector Plants Target and Actual**

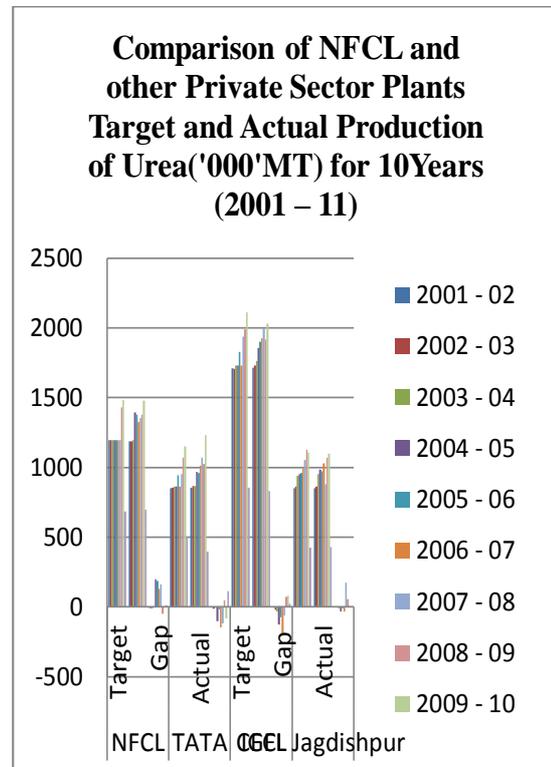
**Production of Urea ('000'MT) For 10 Years (2001 – 11)**



**Chart 6.4.2 - Comparison of NFCL and other Private Sector Plants Target and Actual Production of Urea ('000'MT) For 10 Years**



**Chart 6.4.3 - Comparison of NFCL and other Private Sector Plants Target and Actual Production of Urea ('000'MT) For 10 Years**



**VII. FINDINGS AND SUGGESTIONS**

1. It is found that in the fertilizer industry over 17.12 % of installed capacity is underutilized.
2. The reason for the high production for Nitrogen (N) than Phosphorus (P) is the replacement of feedstock natural gas to Naphtha.
3. Shortage in Phosphorus (P) production indicates the shortage in the supply of complex fertilizers.
4. It tells that only in the years 2001 – 02, 2002 - 03, 2003 – 04 and 2008 - 09, 2009 – 10 the company’s performance is less against to its intended performance (output) but over a period of 10 years the

company gained 5.07 % more production than its intended output.

5. It's found that, in NFCL there is 5.07% increase in utilization of installed capacity is due to the company's advanced technology from Kellogg Brown and Root Process, HaldorTopsoe.
6. It's found that The Ministry of Environment and Forest (MOEF)-constituted expert committee for appraisal of chemical projects. It has decided to recommend and grant environmental clearance to phase III expansion project of Nagarjuna Fertilizers and Chemicals Limited.

### Suggestions

1. The output can be improved when the policies of the govt. are implemented effectively. For the government intention is to go ahead with a new investment strategy for the fertilizer sector, especially for urea. This policy seeks to create a 1.5 million-tons capacity for the production of urea over a five year-period.
2. The govt. should make more Natural gas allocations to fertilizer industry so that the industry can increase its production.
3. The govt. should keep higher targets and make more allocations to the company so that the company can meet its targets at an ease.

4. The govt. should pursue the demand and supply very keenly so that it can fill the gap.

### CONCLUSION

Some of the firms like NFCL and others are performing higher than the intended targets. So it was concluded that the government should see that its new strategy for improving the performance of the industry should be implemented and controlled properly. The whole study was based on the secondary data available with the company as there is less scope of primary data and it is the limiting factor.

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[ramanamurthykudumula@gmail.com](mailto:ramanamurthykudumula@gmail.com)

*Assistant Professor, Dept. of MBA, Andhra University Campus, Thimmapuram, 533005, Kakinada, East Godavari District, Andhra Pradesh, India*

PRASADA RAO BONDADA

[prasadaraobondada@gmail.com](mailto:prasadaraobondada@gmail.com)

*Assistant Professor, MBA, Sri Venkateswara Institute of Science and Information Technology (VISIT), Thelikicherla road, Tadepalligudem, 534101 West Godavari District, Andhra Pradesh, India*

K.V. RAMANA MURTHY

## **A Study on Problems and Prospects in Accessing Institutional Finance by SME's in India**

**Dr. B. NAGARAJU\***

**KAVITHA VANI S.D\*\***

**Abstract:** SME play a strategic role in the progress of the country. The number of SME's has been consistently increasing across the nation. SME's require timely and adequate capital infusion through term loans and working capital particularly during the early and growth stages. Finance demand by SME sector is met by either formal or informal sources or self-finance. As per census report, the finance flow from informal sources and self-finance together makeup most of the finance channeled in to this sector. As per MSME report 2013 an estimated INR 25.5 trillion or nearly 78% of the sector debt demand is fed by informal and self-finance, while formal sources cater just over 22% of the demand at 7 trillion. Commercial

banks, SIDBI, NSIC, RBI rural planning & credit department, EXIM banks, SIDA and NABARD are some of the premier financial institutions constitutes formal source of finance to this sector. Various studies identify commercial banks as the most preferred source of finance by SME sector. SIDBI acts as nodal agency for several government schemes. SME's face distinct challenges in obtaining finance because of their very nature. In current Indian economic scenario cheap funds are difficult to come by. With the RBI reiterating that cost of funds will remain high for a while to curb inflation, this will continue to remain a challenge for the sector. SME sector is ideally suited to build on the strengths of the traditional skills and knowledge, by infusion of technologies, capital and innovative marketing practices. This is the opportunity for financial institutions to extend finance to the sector which is growing at a faster rate and which can better the economic growth of India, if it is taken care of properly.

**KEY WORDS:** SME's, financial institutions, SIDBI, Commercial banks, Finance Gap

## INTRODUCTION

The Micro, Small and Medium enterprise sector is crucial to the economic development. It is rightly identified as growth engine of any economy because of its contribution. It is the second highest provider of employment in India next to agriculture. SME's provide backward and forward linkages to the other industries, acts as a catalyst for socio economic transformation in the country by reducing the regional imbalances, reducing poverty, discouraging rural urban migration and providing employment. The term SME is widely used to describe small business in the private sectors (MSME report 2013). The different parameters such as sales, number of employees, value of fixed assets and loan size are used to define this sector across the world. In India MSMED Act 2006 of the Government provides the definition based on investments in plant and machinery for manufacturing sector and investment in equipment for service sector, the reason being it can be measured and verified.

MSME Act definition of MSME (in INR Million)

	Micro	Small	Medium
Manufacturing	< 2.5	2.5-50	50-100
Service	< 1	1-20	20-50

Source: MSMED Act

As per the fourth census, there are 29.8 million enterprises operating in India, of which 1.8 million units have registered and 28 million units are unregistered. The study also states that 30 million units are in unorganized sector. Enterprises in the sector can be further classified in to manufacturing and service with more than 8000 products ranging from hand made products to high precision machine parts, and numerous services catering both industrial and consumer markets. 95% of the total enterprises are distributed in Micro sector, 4.7% in small sector and around 3% in medium sector. Annual report of ministry of MSME has given the key statistics on economic contribution of SME's to the Indian economy. It constitutes 95 percent of the total industrial units contribute 45 percent to industrial output, 40 percent of total exports, 8 percent to GDP and employment to 69 millions.

## OBJECTIVE

The objective of the study is

To examine the landscape of institutional financing to SME's in India

To identify the problems faced by SME's in accessing finance through literature survey

To evaluate the problems and prospects of institutional financing

## SME FINANCING

Financing is the most important resource for the organizational existence and survival and availability of finance is the critical factor for any industry and in specific SME's. Availability of adequate and timely finance can enhance their potential in contributing to the economy. Access to finance allows SME's to undertake productive investments to acquire latest technologies and expand their business. The demand for the finance for SME's is met by either formal or informal sources. Most of the times their dependency is on informal source and they depend on their own savings. Lack of awareness about the availability of finance has restricted their access to external source of financing. As per 4<sup>th</sup> census of MSME's, 1.56 lakh micro enterprises and .14 lakh small enterprises are only availing formal source of finance out of 29.8 million enterprises in India. IFC study 2013 has estimated the total demand for finance to be 32.5 trillion by this sector and majority of finance demand from these enterprises is in the form of debt finance, estimated at approximately 26 trillion INR. Total demand for equity is 6.5 trillion INR and has high leverage ratios with average debt equity ratio of 4:1. Informal sources and self finance together makeup the most of the finance channeled to this sector. Formal source of finance, banks and non banking institutions account for 6.97 trillion of the overall finance supply.

#### LANDSCAPE OF INSTITUTIONAL FINANCING TO SME'S

Banks and non-banking institutions constitute formal source of supply of finance and institutional and non- institutional informal source of finance constitutes trade credits, chit funds, money lenders, own savings, borrowings from friends and relatives.

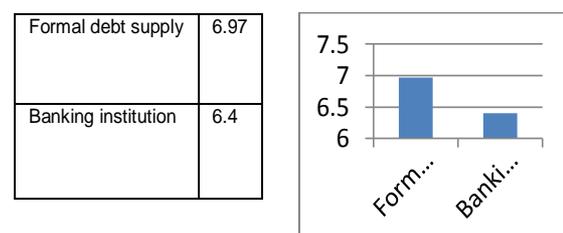
Public sector, private sector, foreign and small banks constitutes banking institution supply. Commercial banks are considered as most preferred source of finance and one of the traditional sources of financing SME's in India. Non- banking financial institutions registered under companies act and are engaged in

business loans, leasing and hire purchasing. Micro financial institutions are often incorporated as non- banking financial institutions. Government institutions and schemes such as CGTMSE, CLCSS and PMEGP are some of the important traditional finance options available to SME's. NSIC, SIDA, SIDBI, NABARD and SFC's are some of the premier financial institutions which are engaged in providing financial assistance to SME's.

#### COMMERCIAL BANKS

Commercial banks are the most preferred source of finance for SME's. Commercial banks in India are highly responsible organizations and equally contribute the development of the country. Strong banking system in India has enabled economy to face the financial crises and bring back the economy on to the path. Lending to SME's is part of priority sector lending which was formalized in 1972, on the basis of the report submitted by the study group constituted by the RBI. Target of 40% of average net bank credit or credit equivalent amount of off balance sheet exposure whichever is higher. No sub targets for MSME financing, but 60% of SSI advances should go the micro enterprises.

Table and graph showing supply of debt finance to SMEs by commercial banks



Source: MSME Report 2013

Although banks have a higher risk perception of the SME sector, they continue to be the key players in formal financing. The reason can be attributed to priority sector lending directives by RBI to assist SME's to get priority over large enterprises to access finance from commercial banks.

## **SIDBI- SMALL INDUSTRIES DEVELOPMENT BANK OF INDIA**

Small Industries Development Bank of India (SIDBI), set up on April 2, 1990 under an Act of Indian Parliament, presently acts as the Principle Financial Institution for the Promotion, Financing and Development of the Micro, Small and Medium Enterprise (MSME) sector and also coordinates the functions of the institutions engaged in similar activities. SIDBI has initiated various schemes for development of MSME sector and continues to be the prime lending institution for MSME sector. The necessity of continuously providing low cost credit to MSEs through concessional resource support to SIDBI has become more pronounced in the present scenario of recovery of the Indian economy from the economic slowdown. SIDBI extends Nodal Agency services to the Government of India for schemes sponsored by various Ministries for encouraging implementation of modernization and technology up gradation projects by manufacturing units in the MSME sector.

SIDBI Venture Capital Ltd. (SVCL), Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) India SME Technology Services Limited (ISTSL), SME Rating Agency of India Ltd. (SMERA), India SME Asset Reconstruction Company Ltd (ISARC) are subsidiaries/associates of SIDBI in promoting SME's in India.

SIDBI also extends financial assistance in the form of loans, grants, equity and quasi-equity to Non Government Organizations / Micro Finance Institutions (MFIs) for on-lending to micro enterprises and economically weaker sections of the society, enabling them to take up income generating activities on a sustainable basis.

## **NATIONAL SMALL INDUSTRIES CORPORATION LIMITED**

National Small Industries Corporation Ltd is an ISO 9001-2008 certified Government of India Enterprise under Ministry of Micro, Small and Medium Enterprises (MSME). NSIC has been working to fulfill its mission of promoting, aiding

and fostering the growth of small industries and industry related micro, small and medium enterprises in the country. Over a period of five decades of transition, growth and development, NSIC has proved its strength within the country and abroad by promoting modernization, up gradation of technology, quality consciousness, strengthening linkages with large medium enterprises and enhancing exports - projects and products from small enterprises. In order to ensure smooth credit flow to small enterprises, NSIC is entering into strategic alliances with commercial banks to facilitate long term / working capital financing of the small enterprises across the country. The arrangement envisages forwarding of loan applications of the interested small enterprises by NSIC to the banks and sharing the processing fee. To meet the credit requirements of MSME units NSIC has entered into a Memorandum of Understanding with various Nationalized and Private Sector Banks. Through syndication with these banks, NSIC arranges for credit support (fund or non fund based limits) from banks without any cost to MSMEs. Credit facilitation by NSIC during the year 2012-13 to Micro, Small & Medium Enterprises increased to Rs. 4, 39,202.23 lakh from Rs. 3, 82,342.26 lakh in the previous year, registering a growth of 15%.

## **RBI -Rural Planning and Credit Department**

The Rural Planning and Credit Department formulates policies relating to rural credit and monitors timely and adequate flow of credit to the rural population for agricultural activities and rural employment programmes. It also formulates policies relating to the priority sector which includes agriculture, small-scale industries, tiny and village industries, artisans and retail traders, professional and self-employed persons, state sponsored organisations for Scheduled Castes and Scheduled Tribes and Government Sponsored credit-linked programmes like Swarnjayanti Gram Swarajgar Yojana (SGSY), Prime Minister's Rojgar Yojana (PMRY) etc. It

implements and monitors the Lead Bank Scheme which is aimed at forging a coordinated approach for providing bank credit to achieve overall development of rural areas in the country.

### **LITERATURE ON DIFFICULTIES FACED BY SME'S IN ACCESSING INSTITUTIONAL FINANCE**

Susan Teo & Serene Cheong (1994), in their survey has identified the reasons for firms not applying for finance from financial institutions as their unwillingness or they are unable to provide information required, that they have other sources of funds available and high interest rates charged by the financial institutions. The firms that applied, the main difficulties were lack of collateral, lack of proven records and lack of proper business plan and good sales turnover.

Hongbo daun, Xiaojie Han & Hongbo Yang(2009), in their paper highlights high transaction costs, information asymmetry and greater risks in operations as the obstacles in obtaining institutional finance.

S.M. Akterujjaman (2010) has identified the underlying problems from the banks perspective. The major findings are related to the high interest and loan duration rates and SME's informal way of doing business.

ERIA Research project report (2010), in its research report identifies size of the SME's and stage of the countries development affects the diversity of choices of financial institutions and financial products that SME's can access. Owners' net worth, collateral, business plan, financial statement and cash flow are the critical factors for financial institutions in devising the financial conditions they extend to SME's.

Kendra Gangata, Ephraim Hudson Mazvidza Matavire (2013), in their study identifies the reason for not obtaining institutional finance being failure to meet lending requirements and provision of collateral security.

### **PROSPECTS FOR INSTITUTIONAL FINANCING TO SME'S**

SME sector is ideally suited to build on the strengths of the traditional skills and knowledge, by infusion of technologies, capital and innovative marketing practices. This is the opportunity for financial to extend finance to the sector which is growing at a faster rate and which can better the economic growth of India, if it is taken care of properly. It may be said that the outlook is positive, indeed promising, given some safeguards are taken care by commercial banks in India. It is evident from the fact that only 1.56 lakh micro enterprises and .14 lakh small enterprises are only availing institutional finance out of 26 million SME's, providing an opportunities for financial institutions to serve rest 25.83 million SME's. The opportunity for financial institutions is not only serving the growing number of units but also the opportunity in terms of unmet demand of the SME sector. MSME report 2013 has estimated the excluded debt demand and immediately addressable demand by the formal financial sector, the total debt demand of INR 26 trillion and at least 38% (INR 9.9 trillion) is the size of the viable demand.

The viable and addressable debt and equity demand presents a significant opportunity for formal financial institutions, the potential size of SME finance market can be further increased by gradually transforming some components of the currently non addressable demand in to the demand that financial institutions would consider viable. Some of the initiatives like increasing awareness among the entrepreneurs regarding accessing finance from various financial institutions, benefits of obtaining institutional finance and educate them about the financial transparency, plan their financial requirement better can help financial institutions to explore SME market.

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**Dr. B. NAGARAJU**

**KAVITHA VANI S.D**

PROFESSOR, DOS ,ASSISTANT PROFESSOR

UNIVERSITY OF MYSORE

LBS Govt First Grade College

MYSORE

R.T.NAGAR,

BANGALORE-3

[kavitharaghu885@gmail.com](mailto:kavitharaghu885@gmail.com)

## **Employee Attrition in Private Engineering Colleges at Kurnool - A Critical Analysis**

**DR. P. SUCHITRA \***

### **ABSTRACT**

Indian companies are facing a fast growth-high opportunity "challenge. Human capital is the epitome of their business growth which makes it imperative for the organizations to deal with this never ceasing problem of Attrition. Whatever be the reason for employees leaving the job, it's a issue of concern for

organizations to retrospect on their HR Strategies and avert turnover and build Brand loyalty for themselves in this competitive market environment. Attrition or employee turnover is a natural reduction in the workforce of an organization for various reasons like retirement, resignation, sickness, death or for reasons that can not be disclosed. Many of the undisclosed factors which can be perceived are, anticipating higher pay, lack of job security, lack of career advancement, non-compatibility with fellow employees, desire for change in search of better opportunities and family reasons. High attrition rates result in escalating recruitment and training costs and lot of time involved in new employee adjustment to the work environment and thereby enhance their morale. The present study aims to look into the reasons for attrition in select private engineering colleges at Kurnool. Needless to say, companies are serious in averting this problem by resorting to solutions ranging from traditional to extraordinary HR Strategies. The study reveals that employees are shifting their jobs mainly for pay related issues followed by job security, better opportunities and congenial working conditions.

(Key words: Attrition, HR Strategies, Congenial work climate, Job security)

## Introduction

Employee Attrition is also referred to as employee or labour turnover. It is defined as “a gradual, natural reduction in membership or personnel, as through retirement, resignation or death”. It is also described as “how long employees tend to stay” or the rate of traffic through the revolving door” The most common way of measuring employee attrition is

$$\text{Employee turnover} = \left( \frac{\text{Total number of leavers over a period}}{\text{Average total number employed over the said period}} \right) * 100$$

## Research Methodology

### Objectives of the study:

The present study is carried out with the following objectives

- Explore the reasons for Attrition in Private Engineering Colleges.

- Critically examine the reasons influencing attrition of employees.
- HR Strategies to combat attrition.

### Hypotheses:

Derived from the above objectives, the hypotheses of the study are stated as follows in null forms for testing of the same:

1. H01: There is no significant relation between pay and attrition.
2. H02: There is no significant relation between employee benefits provided with jobs and attrition.
3. H03: There is no significant relation between quality of supervision and attrition.

**Data Collection:** The primary data is collected through direct discussions with teaching and also non-teaching staff of colleges and also by distributing questionnaire. The questionnaire had 25 questions and the respondents were asked to

rate their response on a 5 point Likert's scale, 1 being the least and 5 being top.

The Secondary data is collected through books, college websites, and journals. Effort has also been made to gather information from doctoral works on this area of Employee Attrition.

### Sampling:

The sample chosen for this study is 15 Private Engineering Colleges present in and around Kurnool district. This study includes large and medium colleges (based on annual intake of students) approved by AICTE, New Delhi and Affiliated to Jawaharlal Nehru Technological University, Ananthapuramu.

The sampling method adopted for this study is Non-Probability sampling method in which Judgment sampling and convenient sampling methods are used. Totally questionnaires were distributed to 140 employees(90 male and 50 female employees), 20 to each branch employees of 15 colleges covering all five branches of Engineering (CSE,ECE,EEE,Civil and Mechanical Engineering, MBA and MCA. Of the questionnaires distributed, the researcher could get back only 120 completely filled in questionnaires.

### Analysis: Questionnaires issued, completed and returned

Branch	Issued	Returned	%
CSE	20	18	15
ECE	20	18	15
EEE	20	18	15
Civil	20	18	15
ME	20	15	12
MBA	20	18	15
MCA	20	15	13
Total	140	120	100

The sum of 120 questionnaires representing 85% of issued questionnaires are presented in

tables of descriptive statistics and analyzed with the help of chi-square statistical tool.

### Demographic Factors

Gender	Male	64%	No.of Children	0
	Female	36%		1
Age	<25	53%	No of Companies served	3
	25-35	36%		2
	36-45	8%		1
	>45	2%		2
Marital Status	Married	41%		3
	Unmarried	59%		4
Total Experience	1	23%	Present company experience	5
	2	38%		1
	3	27%		2
	4	11%		3
	5	1%		4

The range of questions put to faculty included like their opinion on Rate of turnover is low, if the employees are planning to leave in next academic year, employees are unable to leave immediately, employees know the reasons while leaving, colleges retain the employees if they know the reason. The above table clearly states that many employees are in the age group of below 25,not married and a low experience of 1 year are having more tendency to leave the present college and are in search of new college which assures better pay, better benefits and good quality of supervision at higher level of hierarchy.

Factors considered by the employees for leaving the organization

1. Dissatisfaction with pay-86%
2. Lack of recognition at job-75%
3. Dissatisfaction with benefits provided -67%
4. Amicable working conditions -50%
5. Quality of Supervision-69%
6. Self-employment-22%
7. Type of work-14%
8. Conflicts with co-workers-39%
9. No advancement opportunities-47%
10. Health problems-41%
11. Care for family members-25%
12. Transportation problems- 13%
13. Vacations/Week off - 15%
14. Company's corporate culture -12%
15. Business/product direction -10%

**Analysis:** The analysis clearly states that majority of employees are shifting their jobs because of pay related issues and they feel that they do not receive pay in accordance with their qualifications and experience. If a better opportunity is available, preferably with a better pay, they are ready to quit the present job and organization. Next influential factor for employee turnover is dissatisfaction with the benefits offered with job and followed by lack of recognition at the workplace. For any employee, job satisfaction is an element which boosts the morale of employee and prevents the rate of attrition. Followed by these factors are quality of supervision and better amicable working conditions. If working conditions are better, output of employees increase and thereby organization success rate increases

as the employees would be reluctant to leave. No better advancement career chances, work affecting the health of employees, conflicts with co-workers are some of the factors that increase employee dissatisfaction and motivate them to leave the organization. The least important criteria for attrition are self-employment, care for family members, transportation problems, nature of work and company's corporate culture are having lesser influence on attrition of employees. This indicates that career advancement is the priority with pay related issues and all other factors are given secondary importance by the employees. No single factor majorly influences attrition rate and it is a combination of effects.

#### Data Presentation and Analysis:

1. Does pay related issues affect Attrition in organizations?

Employee Response	Frequency	%
Yes	90	75
No	15	13
Depends on organization pay policy	10	08
Can't say	05	04
Total	120	100

In Table, 90 employees representing 75% are of the opinion the opinion that pay related issues influence employee turnover in the colleges, 15 employees feel pay is no way related, 10 employees expresses that turnover depends on pay policy in college and a minute 05 employees could not speak out their mind.

2. Do provision of employee benefits affect employee attrition?

Employee Response	Frequency	%
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Yes	105	88
No	10	08
Can't say	05	04
Total	120	100

The above data says that 105 employees(88%) in college feel that employee turnover is high when they are not recognized at work and only 10 employees (08%),said no relation to recognition and a minor 05employees(04%) could not express any relation to recognition and attrition.

### 3. Does quality of supervision influence and affect employee attrition in colleges?

Employee Response	Frequency	%
Yes	108	90
No	05	04
Depends on HOD	07	06
Can't say	0	00
Total	120	100

The above table clearly emphasis that 108 employees representing 90% of the population strongly relate attrition to quality of supervision at the HOD level and only 07employees (06%) felt related to HOD and 05 employees said no relation to quality of supervision and attrition levels at colleges.

#### Chi-square Analysis:

Chi – square test was used to find the relationship between the factors affecting employee attrition in private engineering colleges. The results are as

- The calculated value of  $c^2=169$  is greater than the table value of 2.366 (DF=3) (at 5% level of significant) hence null hypothesis is rejected and it was

concluded that the employees leave their present college for pay related issues only.

- The calculated value of  $c^2=157$  is greater than the table value of 1.386 (DF=2) (at 5% level of significant) hence null hypothesis is rejected and it was concluded that employees attrition is high if employee is not provided with benefits on job.
- The calculated value of  $c^2 =275$  is less than the table value of 2.366 (DF=3) (at 5% level of significant) hence null hypothesis is rejected and it is concluded that quality of supervision influences the level of employee attrition in colleges.

**Remedies for organizations:** To reduce attrition and improve employee job satisfaction levels in the organizations, the following strategies may be adopted:

- Create confidence in employees that the organizations care for them and propose all that is necessary so that employees advances in his/her career.
- Provide with regular trainings so that broadens employee experiences and provides scope for development.
- Not just implementing but communicating and providing ample

- scope for achievement and thereby recognizing and rewarding the employees would be apt.
- Well trained managers and their mettle in order that they can reduce or eliminate the employee conflicts.
  - Making the reward system well consistent with organizational goals.

**Conclusion:** Employee Attrition is an issue which every organization should give due concern and consideration in order that they retain employees and who could be influential in bringing stability, growth and foster organization development and thereby help realize organizations vision. If the three prolonged strategies of empowerment at work, professional development and strong bonding is followed, colleges can start seeing results at a faster rate.

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## Working Capital Management of Cement Industry in Meghalaya – A Comparative Analysis of Select Companies

DR. K. C. BISWAL \*

### 1. INTRODUCTION

Cement industry is one of the basic industries. It is the core industry. It is the infrastructural industry of a nation. It is necessary for a nation's development. It occupies a position of

predominance in India. It constitutes an important segment of the modern industrial economy of India. It plays a vital role in the economic life of a country. It has greater utility. It directly employs 2.5 lakh manpower. The total investment is about Rs 50,000 crores approximately in the industry. Cement industry

occupies 5th position in the world in terms of production of cement. It is the capital intensive industry. It is one of the important industries for the development of a nation. Cement is known as the builder of modern nation, society and civilizations for it is the wonder material for binding stones and bricks together. The economic growth of a country, largely depends on the production of cement. The growth of the cement industry is indeed essential because of multiple uses of cement in the industrial as well as infrastructure development of the country.

Cement industry, which has been signed out from investigation in the present study, is indeed the backbone of economic growth in any country. A thick relationship has been found between the level of economic growth and the quantum of cement consumption in developed as well developing countries. Cement industry, through its forward linkages provides the maximum stimulus to growth in other industry also. One employee in cement manufacturing activity supports eight to ten persons in related activities.

In India, since independence, great emphasis has been laid on the development of cement industry. It is one of the key basic industries in India. It plays dominant role in the national economy. Cement industry ranks second after the Iron and steel industry. Cement is indispensable in building and construction works. The production and consumption of cement, to a large extent, indicates a country's progress. The development of transport, infrastructure, irrigation and power projects etc.

depends to a very large extent on the availability of the cement.

The per capita consumption level of cement is regarded as one of the indicators of development and standard of living in a nation. Keeping in mind the above importance of the cement industry in the economic development, it is required to do an in-depth study of the problems faced by the industry especially in the area of working capital management. The study aims to analyses the working capital issues like liquidity and profitability aspects of the working capital management. It also analyze the various sources of working capital finance.

The importance of Working capital in any Industrial concern need not be over-emphasized, the existence of adequately supplied and carefully administered working capital undoubtedly can make all the difference between the success and failure of an enterprise. Therefore, the management of working capital is an important segment of financial management which involves frequent decision making both long term and short-term.

In a country like India, where the industrial development is yet to achieve the required momentum in commensurate with its need, the efficient operation of the industrial enterprises are of crucial importance. Besides, in a resource scarce economy like India, efficacious utilization of available resources more particularly of capital, deems to be imperative and the management of working capital, through of considerable significance, does not get the required attention it deserves. As a result, the operational and technical efficiency of

manufacturing organizations. In the country has considerable been eroded. The management of working capital basically refers to the management of current assets, their sources of financing and striking a balance between the structure of current assets and current liabilities. Working capital management is concerned with all the decisions and activities that influence the volume, composition, financing and effectiveness of working capital. The procurement of adequate funds and application of these funds is a general management's responsibility since it involves policy decisions affecting all the management functions: Production, marketing and Administration.

#### 2.1 Importance of STUDY

The importance of adequacy of working capital can hardly be over-emphasized. John L. O. Donnell and Milton S. Gladberg observe "Many times business failure takes place due to lack of working capital." Hence, working capital is considered as the life blood and the controlling nerve centre of a business. Inadequate working capital is business ailment. Working capital management occupies an important place in the field of financial management because without working capital it is difficult to continue the day-to-day operations of the business and hence it is considered as the life blood of any business. Basically, it is the management of firm's short term financial requirement. In the present day scenario, the survivability and sustainability of the firm depend upon the so called vitamin 'M' i.e. money or cashflow. It is evident from history that when many firms have gone into liquidation over the years as a result of running short of cashflow for operation. For the successful

working of any business organisation, fixed as well as current assets play a vital role (Singh and Pandey, 2008). But the management of current assets or the as working capital is more important as it has impact on the profitability of the firm. The optimum working capital ensures the success of the business, while its inefficient management leads to the downfall of the company (Chandra and Selvaraj, 2012). Liquidity crunch puts pressure on the working capital position, causing it to cut back on investment. Therefore, careful evaluation of each component of working capital and its interrelationship is needed. The main objective of the working capital management is to arrange the needed funds at right time from the right source and for the right period, so that a tradeoff between liquidity and profitability may be achieved (Jain and Dhing). In this context, the present paper is an attempt to study the practice in working capital management with special reference to Cement industry. Therefore, a firm has to maintain a sound working capital. It should be adequate for the following reasons:

- (1) It protects a business from the adverse effects of shrinkage in the values of current assets.
- (2) It is possible to pay all the current obligations promptly and to take advantage of cash discounts.
- (3) It ensures, to a greater extent, the maintenance of a company's credit standing and provides for such emergencies as strikes, floods, fires etc.
- (4) It permits the carrying of inventories at a level that would enable a business to serve satisfactorily the needs of its customers.

(5) It enables a company to extend favorable credit terms to its customers.

(6) It enables a company to operate its business more efficiently because there is no delay in obtaining materials, etc., because of credit difficulties.

(7) It enables a business to withstand periods of depression smoothly.

(8) There may be operating losses or decreased retained earnings.

(9) There may be excessive non-operating or extraordinary losses.

(10) The management may fail to obtain funds from other sources for purposes of expansion.

(11) There may be an unwise dividend policy

(12) Current funds may be invested in non-current assets

(13) The management may fail to accumulate funds necessary for meeting debentures on maturity.

(14) Increasing price may necessitate bigger investments in inventories and fixed asset.

2.2. The growing importance of the efficient management of working capital in the manufacturing sector has necessitated the adoption of a pragmatic decision. A proper and timely management of working capital is the key to success of an enterprise since it always aims at protecting the purchasing power of assets and maximising the return on investment. Particularly the paucity of short-term funds for manufacturing industries in the country has thrown challenges to the management to be more careful in maintaining the sound working capital position for the enterprise. The financing of working

capital requires prudent decision making on the part of the management. Whether more emphasis will be put on long-term sources than the short-term sources, whether the internal financing will be beneficial in comparison to external financing, all these critical questions need to be answered before any decision on working capital finance is made. Admittedly, working capital in its broadest concept accounts for a very large proportion of the total investment of a firm. Therefore, keeping in view of its magnitude and significance, a bulk of the efforts of the management is utilised for the efficient management of working capital.

A deeper understanding of the importance of working capital and its satisfactory provision can lead not only to material savings through an economical use of capital but also assist in furthering the ultimate aim of a business that of maximising financial returns on the minimum amount of capital which is employed in the business. No doubt, the fixed capital investment creates production facilities, but working capital helps in utilising those production facilities available. An efficient management of current assets and current liabilities maintains the capacity utilisation satisfactorily.

### 3. HISTORY AND GROWTH OF CEMENT INDUSTRY IN MEGHALAYA.

Meghalaya being the heart state of North East has got its ancestral values in India. Known for one of the highest rainfall at Cherrapunji, its environmental friendly and good climatic conditions attract people from all over India.

Being rich in minerals particularly limestone, coal, shale, bauxite, laterite etc. The Jaintia Hills District of Meghalaya has become a boon to the cement industry. In Lumshnong, Thangskai, Mynkre e, Nongning etc, there are a number of cement factories in operation as well as the project stage. Major plants like Cement Manufacturing Company Ltd. (Star Cement), Meghalaya Cement Ltd. (Topcem) etc are already in operation and are catering to the need for cement of the North East region. The other cement plant M/s JUD has also started its production a few years back. The cement projects e.g. M/s Adhunik Cement Ltd., M/s Hills Cement Ltd., M/s Amrit Cement & M/s Green Valley Industries Pvt Ltd are also completing their cement projects at a rapid pace. Further, major groups like Lafarge Cement, Dalmia Group, Balajietc are also exploring possibilities to set up major cement plants in Meghalaya. Besides cement industries, other industries are also operating in the state such as timber/plywood, coke, brick moulding, stone chips etc. Mawmluh Cherra Cement Limited (Govt of Meghalaya undertaking) is also located in the Eastern region of the state. The Limestone from Shella of East Khasi Hills District is supplied to Bangladesh through Belt Conveyor (17 kms in length) for its Lafarge Cement Plant. Further, from the Bholaganj area, limestone is supplied by ropeway to Bangladesh. Some industries units are also located in Nongpoh, Byrnihat areas of Meghalaya which are Boosting further industrial growth.

In view of all this, it is clear that Meghalaya is blessed with valuable minerals and various industries could be set up here. Being

blessed with Natural resource of water, there is ample opportunity for the setting up of power projects. The power generations/distribution done by the Meghalaya State Electricity Board caters the major needs of Meghalaya. As per the Geological Survey of India, uranium deposits are also available in West Khasi Hills district; thus the chances of setting up nuclear power plants are also highly feasible.

It needs to be mentioned here that the setting up of industries certainly exploits natural resources of the area, degrades the environment and imbalance the eco-system causing hardship to the local people. Therefore it is essential and even mandatory for industrialists to take care of the natural environment and peripheral development of local areas where the industries are set up. Meghalaya already has an advantages as it has been blessed with abundant natural resources

### 3. Scope and Purpose of Present Study.

The proposed study titled "Working Capital Management in Cement Industry in Meghalaya" analyses the efficiency of the working capital management and its components i.e. inventory amount, cash and bank balances and various current liabilities. The study attempts to determine the efficiency and effectiveness of management in each segment of working capital. Since the net concept of working capital has been taken in the present study, management of both current assets and current liabilities will be critically reviewed. The importance of the study is emphasized by the fact that the manner of administration of current asset and current

liabilities determined to a very large extent the success or failure of a business. The efficient and effective management of working capital is of crucial importance for the success of a business, which involves the management of the current assets and the current liabilities. The business concern has therefore to optimise the use of available resources through the efficient and effective management of the current assets and current liabilities. This will enable to increase the profitability of the concern and the firm have sustainability.

#### 4. Objectives of the study

Against such a back drop, a study of the working capital of the manufacturing industries needs no emphasis. This study includes an analysis of the working capital management of selected manufacturing industries in the private corporate sector for a period of ten years covering 2003-2004 to 2013-2014. The present study will be undertaken to achieve the following objectives with regard to management of working capital in Cement Industry of Meghalaya.

- To analyze and evaluate working capital management of selected cement companies of Meghalaya.
- To ascertain the composition of working capital.
- To analyse and evaluate the practice of working capital Management in the selected cement companies.
- To make an element wise analysis of the components of working capital and identify the factors responsible for

changes in the working capital during the study period.

- To analyse and evaluate the trends in the financing pattern of working capital so as to gain an understanding with respect to the relative roles played by diverse sources of working capital financing.
- To evaluate the liquidity of the undertakings as a measure for judging the quality of working capital management.
- To find out the relationship between gross working capital and sales.
- To evaluate the performance of inventory, receivable and cash.
- To have a comparative analysis of the working capital management on the basis of ownership control.
- To study the fluctuations arising in working capital in various cement companies due to its nature of demand and supply, production, government policies thereto.
- To have a comparative analysis of the working capital management on the basis of the year of operation.

#### 5. METHODOLOGY OF STUDY.

The Present study on Working Capital Management of selected cement industries will be based on data collected from secondary sources. More specifically, the annual report of the companies and the data from B.S.E official directory will constitute the major source and will be analysed by using various tools and techniques, both accounting & statistical. The

accounting tools include the ratio analysis and funds flow statements. The arithmetic mean(X), coefficient of variation (C.V), test of significance t-test, growth rates, trend analysis, coefficient of correlation(r), coefficient of determination( $r^2$ ), linear regression equation, Chi-square test, graphs and charts are the statistical tools used for the purpose of analysis .

#### 6. Hypotheses of the study

The study will pursue to test the following hypotheses with reference to the working capital Management of selected Cement Industry in the public sector and private sector in India & Meghalaya embracing a period from 2003-2004 to 2013-2014.

- In manufacturing concern, current assets constitute a large proportion of total assets.
- Inventories emerge as the major components of current assets for Cement Industry.
- Normally, short-term funds are utilised for financing current assets.
- A major portion of the working capital is being Finances out of trade credit.
- Loans and advances is an important source of financing the working capital in the Indian Financial environment.
- The contribution of long -term funds, both equity and debt, for financing current assets is gaining ground in the Indian financial system.
- Under Indian conditions, any specific financial behaviour in working capital finance is hardly enduring.

- That proper management of working capital improves both 'Liquidity and Profitability' position of a business firm.
- That external sources of finance particularly bank borrowing are being liberally utilized in financing the working capital requirement of Cement industry in Meghalaya.
- That the scope for improvement in the management of working capital is greater in inventory as well as receivables management than in cash management.
- That the private sector of the industry is definitely in a better position than the public sector, as far as management of working capital is concerned.
- Normally, very old companies are more efficient in managing working capital than new companies.

#### 7. Review of literature.

Ever since the evolution of the concept of working capital, several authors have attempted to analyze the concept by defining it so that the components of working capital are properly identified. In doing so, quantitative and qualitative characteristics of working capital are also identified to make working capital analysis for meeting specific needs. These efforts have offered further scope to the authors to approach this topic in the context of management of working capital in many ways. Such approaches have also facilitated evolution of techniques to manage working capital. Each of these approaches has their own basis and

justification. Views expressed by various authors suggest further need to analyze working capital management issues. Review of some of the studies carried out and suggestions offered by eminent authors on the subject have helped in formulating the theme meaningfully and to carry out the study in line with the objective and scope. The Problems of Working Capital management have drawn a great deal of research in the recent past. Extensive research work has been carried out by the researchers in various areas of Working capital management.

A sincere effort has been made for comprehensive review of literature on working capital management in general and small enterprises in particular, reveal the following.

A study conducted by National Council of Applied Economic Research (NCAER)(1966) with reference to working capital management in three industries, VIZ. Cement, fertilizer and sugar. This was the first study on nature and norms of working capital management in countries with 'Scarcity of investible resources'. This study was mainly devoted to the ratio analysis of composition, utilization and financing of working capital for the period 1959 to 1963. This study classified these three industries into private and public sector for comparing their performance as regards the working capital management. The study revealed that inventory constituted a major portion of working capital i.e. 74.06 per cent in the sugar industry followed by cement industry (63.1%) and fertilizer industry (59.58%). The study observed that the control of inventory had not received proper attention. The inventory control was mainly confirmed to

materials management leading to the neglect of stores and spares. So far as the utilization of working capital was concerned, cement and fertilizer industry had a more efficient utilization of working capital. The sugar industry had inefficient utilization of working capital largely due to the accumulation of stock with the factories. As regards financing of working capital, the study showed that internal sources had contributed very little towards the financing of working capital. It was 11.87 percent in the cement industry, 15.03 percent in sugar and 31.25 per cent in fertilizer industry, 17.78 percent being the average. However, this study failed to put into sharp focus the various problems involved in the management of specific working. A P Pavadhanulu (1971) choice of technique and working capital. However, he pointed out that the idea could be tested in some other industries like machine tools, ship building etc. by taking more appropriate ratios representing production technique correctly. Recognizing the lack of attention being given to investment in working capital, analysed working capital management by examining the impact of method of production on investment in working capital. He emphasized that different production techniques require different amount of working capital by affecting goods-in-process because different techniques have differences in the length of production period, the rate of output flow per unit of time and time pattern of value addition. Different techniques would also affect the stock of raw materials and finished goods, by affecting lead-time, optimum lot size and marketing lag of output disposals. He, therefore, hypothesised that choice of production technique could reduce the

working capital needs. He estimated the ratio of work-in progress and working capital to gross output and net output in textile weaving done during 1960, on the basis of detailed discussions with the producers and not on the basis of balance sheets which might include speculative figures. His study could not show significant relationship between

Chakraborty (1973) approached working capital as a segment of capital employed rather than a mere cover for creditors. He emphasized that working capital is the fund to pay all the operating expenses of running a business. He pointed out that return on capital employed, an aggregate measure of overall efficiency in running a business, would be adversely affected by excessive working capital. Similarly, too little working capital might reduce the earning capacity of the fixed capital employed over the succeeding periods. For knowing the appropriateness of working capital amount, he applied operating cycle (OC) concept. He calculated required cash working capital by applying OC concept and compared it with cash from balance sheet data to find out the adequacy of working capital in Union Carbide Ltd Madhura Mills Co Ltd. for the years 1970 and 1971. He extended the analysis to four companies over the period 1965-69 to 1974 study. The study revealed that cash working capital requirements were less than average working capital as per balance sheet for Hindustan Lever Ltd. and Guest, Keen and Williams Ltd. Indicating the need for effective management of current assets. Cash working capital requirements of Dunlop and Madhura Mills were more than average balance

sheet working capital for all years efficient employment of resources. For Union Carbide Ltd., Cash working capital requirements were more in beginning years and then started reducing in the latter years as compared to conventional working capital indicating the attempts to better manage the working capital. Chakraborty emphasized the usefulness of OC concept in the determination of future cash requirements on the basis of estimated sales and costs by internal staff of the firm. OC concept can also be successfully employed by banks to assess the working capital needs of the borrowers.

Misra (1975) studied the problems of working capital with special reference to Six selected public sector undertakings in India over the period 1960-61 to 1967-68. Analysis of financial ratios and responses to a questionnaire revealed somewhat the same results as those of NCAER study with respect to composition and utilization of working capital. In all the selected enterprises, inventory constituted the more important element of working capital. The study further revealed the overstocking of inventory in regard to its each component, very low receivables turnover and more cash than warranted by operational requirements and thus total mismanagement of working capital in public sector undertakings.

Agarwal (1983) also studied working capital management on the basis of sample of 34 large manufacturing and trading public limited companies in ten industries in private sector for the period 1966-67 to 1976-77. Applying the same techniques of ratio analysis, responses to questionnaire and interview, the study concluded

the although the working capital per rupee of sales showed a declining trend over the years but still there appeared a sufficient scope for reduction in investment in almost all the segments of working capital. An upward trend in cash to current assets ratio and a downward trend in cash turnover showed the accumulation of idle cash in these industries. Almost all the industries had overstocking of raw materials shown by increase in the share of raw material to total inventory while share of semi-finished and finished goods came down. It also revealed that long-term funds as a percentage of total credit to the industries.

Rajeswara Rao (1985) thoroughly examined the managerial aspects of inventories, reworking capital registered an upward trend, which was mainly due to restricted flow of bank advances and cash of certain public enterprises in India during 1971-72 to 1976-77. The study conducted that the policies & practices of working capital management in public enterprises are not useful for achieving the working capital management objectives.

Kamat Prasad Singh, Anil Kumar Sinha and Subas Chandra Singh (1986) examined various aspects of working capital management in fertilizer industry in India during the period 1978-79 to 1982-83. Sample included public sector unit, Fertilizer Corporation of India Ltd. (FCI) and its daughter units namely Hindustan Fertilizers Corporation Ltd., the National Fertilizer Ltd., Rashtriya Chemicals and Fertilizers Ltd. and Fertilizer (Projects and Development) India Ltd. and comparing their working capital

management results with Gujarat State Fertilizer Company Limited in joint sector. On the basis of ratio analysis and responses to a questionnaire, study revealed that inefficient management of working capital was to a great extent responsible for the losses incurred by the FCI and its daughter units, as turnover of its current assets had been low. FCI and its daughter units had high overstocking of inventory in respect of each of its components particularly stores and spares. Similarly, quantum of receivables had been excessive and their turnover very low. However, cash and liquid resources held by FCI and its daughter units had been much lower in relation to operation requirements. So far as financing of working capital was concerned, long-term funds had been financing a low proportion of current assets due to rapid increase of current liabilities. The profitability providing an internal base for financing of working capital had been very low in these undertakings.

N.C. Gupta (1987) study examined the determinants of total inventory investment in aluminum and non-ferrous semi firms in private sector. The data had been taken from stock exchange, official Directory, Mumbai for 9 years 1966-67 to 1974-75. Variables considered were current sales change, one-lagged sales change, inventory stock at the beginning, gross fixed investment during the year, flow of net debt (external finance) and profits net of dividends and taxes but gross of depreciation provision (retained earnings or internal finance). The equation also provided for firm dummies and year dummies. Analysis was based on pooling of time series of cross section

data. Demand factor and external finance turned out to be significant determinants in aluminum. Both retained earnings and external finance were important determinants in case of non-ferrous semis. Competition for investment funds between fixed and inventory investment was suggested both in aluminum and non-ferrous semis.

Verma (1989) valued working capital management in iron and steel industry by taking a sample of selected units in both private and public sectors over the period 1978-79 to 1985-86. Sample included Tata Iron and Steel company Ltd. (TISCO) in private sector and Steel Authority of India Ltd. (SAIL) and Indian Iron and steel company, a wholly owned subsidiary of SAIL, in public sector. By using the techniques of ratio analysis, growth rates and simple linear regression analysis, the study revealed that private sector had certainly an edge over public sector in respect of working capital management. Simple regression results revealed that working capital and sales were functionally related concepts. The study further showed that all the firms in the industry had made excessive use of bank borrowings to meet their working capital requirement vis-a-vis the norms suggested by Tandon Committee.

Rao, K.V. (1990) in his study analyzed the performance of working capital management in five public enterprises engaged in manufacturing activities which are owned & managed by the government of Andhra Pradesh during the decade 1969-70 to 1978-79. This study analyzed inventory, receivable and cash management and

the financing pattern of the working capital. A part from these aspects, impact of information on working capital management and also been analyzed in this study.

Vijaykumar and Venkatachalam (1995) studied the impact of working capital on profitability in sugar industry in Tamil Nadu by selecting a sample of 13 companies; 6 companies in co-operative sector and 7 companies in private sector over the period 1982-83 to 1991-92. They applied simple correlation and multiple regression analysis on working capital and profitability ratios. They concluded through correlation and regression analysis that liquid ratio, inventory turnover ratio, cash turnover ratio influenced the profitability of sugar industry in Tamil Nadu. They also estimated the demand functions of working capital and its components i.e. cash, receivables, inventory, gross working capital and net working capital, by applying regression analysis. They showed the impact of sales and interest rate on working capital and its components. When only sales was taken as independent variable, coefficient of sales was more than unity in all the equations of working capital and its components showing more than unity sales elasticity and diseconomies of scale. When sales and interest rate were taken as independent variable, sales elasticity was again more than unity in demand functions of working capital and its components except cash. So far as capital costs were concerned, these had negative signs in all the equations but significant only in inventory, gross working capital and net working capital showing negative impact of interest rates on investment in working capital

and its components. Thus study showed that demand for working capital and its components was a function of both sales and carriage.

V.V.Seshamohan(2008) point out that very briefly the industrialization of the state of Andhra Pradesh and also reviews the growth of Private corporate sector in India. The models for various components were found to provide best estimates when used as a Fore-casting purpose. The researcher could be able to forecast the likely values of the variable under study using the three different approaches mentioned. The results of these three approaches could not give a unique Forecast value for a given components of the working capital or overall investment in working capital.

P,Janakiramudu (2008) in his study working capital management varied within the individual company and between the companies. The prime reason found for the same was the absence of concrete policies towards working capital management in such companies that performed poor.

Dr Debdas Rakshit and Chanchal Chatterjee(2008) from the entire discussion of this article, it appears that the concerned companies at present are reducing their holding on working capital and at the same time enlarging their investment portfolios in a strategic way.Management of working capital in a strategic mode is now contributing to value base management system. This strategic mechanism is facilitating the companies to manage their

working capital in a new route instead of following the traditional views.

Viqaralibaig (2010) studies the performance evaluation has indicated that most firms evaluate their performance by comparing their cost with the present and actual with the expected overall performance finding suggest that the firms are doing little to create values by managing working capital levels of investment and short-term financing as well as operations of purchase and selling.

Sanjay J.bhayani (2010) has pointed out that there is considerable academic debate about the impact of working capital on the profitability of a firm.One school of thought argues that fixed capital only a very significant role in profit generating process.Moreover,he has also suggested that there may be negative relationship between working capital and profitability.The other school of thought argues that unless there is a minimum level of investment in the working capital,Which provides a promising vehicle for increasing profitability, output and sales cannot be maintained.In this case, working capital acts as an explanatory variable in the profit function of a company.Obviously a large number of considerations plays significant role in the development of arguments and counter arguments in this regard the profitability risk trade off,costfactors in relation to investment in current vis-a-vis fixed assets,financing through sources are the common ones.

Drucker has argued that accounting systems should provide answers about their businesses,markets,customers,and

environment to "information literate" manager. Thus, the role of a management account expanded in multiple dimensions. They were not just to collect the cost information as accurately as possible but also analyze the utility of the cost information for taking vital managerial decisions. This new paradigm of management accounting called for certain additional skills of the management accounts.

T. Satyanarayana Chary and V. Venkateswarlu (2003) has indicated that working capital can be recorded as the circulatory system of any business. Management of Working capital is complicated on account of two important reasons, namely, fluctuating nature of its amounts, and the need to maintain a proper balance between current assets and non-current assets in order to maximize profit. Shortage of working capital is a chronic disease with the industrial sector in India. The importance of working capital in an industry can not be overstressed, as it is one of the important causes of success or failure of an industry. Whatever is the size of a business, working capital is its life blood.

Shin and Soenen (1998) studied the relation of efficiency of working capital management and corporate profitability by taking 58985 firms covering the period 1975-1994. The study discloses a strong negative relation between the length of the firm's net trade cycle and its profitability. However, shorter net trade cycles are associated with higher risk-adjusted stock return. The study of Mallik and Sur (1999) on working capital management in Hindustan Leaver

Ltd. disclosed a very high degree of positive relationship between liquidity and profitability.

The paper of Padachi (2006) examines the trends in working capital management and its impact on firms' performance. The corporate profitability is investigated for a sample of 58 small manufacturing firms, using panel data analysis for the period 1998-2003. The regression results show that high investment in inventories and receivables is associated with lower profitability. The dependent variable, return on total assets is used as a measure of profitability. The independent variables used in the analysis are inventories days, accounts receivables days, accounts payable days, cash conversion cycle. A strong significant relationship between working capital management and profitability has been found in the empirical work.

Bhunia (2007) carried out a study on liquidity management of two public sector iron and steel enterprises such as Steel Authority of India Limited and Indian Iron and Steel Company Ltd. Considering the study period of 12 years from 1991-92 to 2002-03, the study concluded that both the companies have a poor liquidity position and working capital position. Inefficiency in receivables was found in case of both the companies.

Chakraborty (2008) carried out a study on the relationship between working capital and profitability in the Indian pharmaceutical industry with a sample size of 25 companies covering the period from 1996-97 to 2007-08. The variables

such as current ratio, inventory turnover ratio, and debtor turnover ratio were selected as the components of the working capital whereas profit before interest and tax margin (PBITM) and return on capital employed (ROCE) were selected as the measure of profitability. The result of the study disclosed the positive association of current ratio with PBITM and ROCE. Similarly, inventory turnover ratio and debtor turnover ratio showed positive relation with profitability in most of the cases under study. Singh and Pandey (2008) carried out a study on the impact of working capital management in the profitability of Hindalco Industries Ltd. The coefficient of correlation between two variables such as profitability ratio and working capital turnover ratio indicates negative correlation whereas current ratio, receivable turnover ratio, inventory turnover ratio, turnover of cash and working capital to total assets have shown positive correlation with profitability.

Ramudu (2009) conducted an empirical study on working capital structure and liquidity position of Indian commercial Vehicles Industry. The author has attempted to study the effectiveness of structuring the working capital and concluded that inventories formed the highest percentage in the working capital structure followed by trade receivables and loans and advances whereas cash and bank balances formed very negligible part. Further, the study revealed the variation between current assets turnover ratio and working capital turnover ratio which was very high across the industry, which in turn, implies that the sample companies achieved higher sales with less working capital.

Gill, Bigger and Mathur (2010) researched on the relationship between working capital management and profitability of eighty eight USA firms. The findings of the study indicate that slow collection of accounts receivables is correlated with low profitability. There is a positive correlation between cash conversion cycle and gross operating profit established. However, no significant relation is found between the firm size and its gross operating profit ratio.

Saini and Saini (2010) proposed to study the trade-off between liquidity, risk and profitability of Infosys Technologies. The result of study reveals that there exists negative relationship between the liquidity and profitability of the company which is found to be significant at 5 percent level of significance. However, there exists no significant relationship between risk and profitability. They are mildly related to each other.

Agarwal (2011) carried out an empirical study on the management of working capital in Maruti Suzuki India limited. Considering the data for a period of 9 years, the author focuses on the relationship between liquidity and profitability and risk. The result of the study discloses that there is no relation between liquidity and profitability and risk. The result of the study discloses that there is no relation between profitability and liquidity while profitability has a positive relationship with risk. This indicates that the firm gives little importance to the liquidity issues related with working capital management.

The study of Jain and Dhing (2011) on working capital management of Reliance Industries Ltd. reveals negative relation between efficiency of working capital and the profitability. The correlation between efficiency ratio and profitability ratio is found to be positive but is not statistically significant. There is negative correlation between efficiency ratio and market ratio. However, a mixed response is seen with respect to the relation between market ratio and profitability ratio.

Jain, Singh and Kapoor (2011) carried out a study on the working capital management practices in Reliance Industries limited. Covering the period of ten years i.e. from 2001-2009 they sought to analyse the significance of debtor, cash, loans & advances, inventory and their turnover ratios in the management of working capital. The study result concluded that RIL has maintained satisfactory liquidity ratio, and at the same time, the components of current assets have not occupied substantial share, vis-a-vis, its total sales which may be an indication of its efficiency in managing its working capital.

Karaduman et al. (2011) studied on the relationship between working capital management and profitability of the selected companies of Istanbul Stock Exchange. Using cash conversion cycle (CCC) and Return on assets (ROA) as the proxy for the working capital and profitability respectively, the study discloses positive association between them.

Scholleova (2012) studied the impact of economic crises on the working capital management of firms in Czech Republic. The

study found that the Czech firms suffered from decreased demand and shortage of capital. Companies that survived during the crises have optimised their assets and increased the efficiency of through active management.

Chandra and Selvaraj (2012) carried out a study on determinants of working capital management in selected Indian steel companies. The study disclosed that the size of a company plays a vital role in determining the efficiency of its working capital management.

The study of Ramudu and Parasuraman (2012) on Indian pharmaceutical industry revealed that the growth rate in profit was disproportional to the sales and working capital components like inventory and debtors.

The study of Acharya and Mahapatro (2013) focuses on the working capital practices in a public sector enterprise taking NALCO as the sample unit. The study tested certain hypotheses relating to various aspects of working capital. The study discloses that recession has an impact on the NALCO's working capital position. The relation between liquidity and profitability is found to be positive where as risk factor has a negative relationship with profitability. Working capital is also found to be positively associated with sales. Studies adopting a new approach towards working capital management are reviewed here. Sagan in his paper (1955),<sup>1</sup> perhaps the first theoretical paper on the theory of working capital management, emphasized the need for management of working capital accounts and warned that it could vitally affect the health of the company. He realized the need to build up a

theory of working capital management. He discussed mainly the role and functions of money manager inefficient working capital management. Sagan pointed out the money manager's operations were primarily in the area of cash flows generated in the course of business transactions. However, money manager must be familiar with what is being done with the control of inventories, receivables and payables because all these accounts affect cash position. Thus, Sagan concentrated mainly on cash component of working capital. Sagan indicated that the task of money manager was to provide funds as and when needed and to invest temporarily surplus funds as profitably as possible in view of his particular requirements of safety and liquidity of funds by examining the risk and return of various investment opportunities. He suggested that money manager should take his decisions on the basis of cash budget and total current assets position rather than on the basis of traditional working capital ratios. This is important because efficient money manager can avoid borrowing from outside even when his net working capital position is low. The study pointed out that there was a need to improve the collection of funds but it remained silent about the method of doing it.

Moreover, this study is descriptive without any empirical support. Realising the dearth of pertinent literature on working capital management, Walker in his study (1964)<sup>2</sup> made a pioneering effort to develop a theory of working capital management by empirically testing, though partially, three propositions based on

risk-return trade-off of working capital management.

The negative association between company's accounts receivables and profitability suggests that the higher level of accounts receivables tend to increase the cash gap and therefore will reduce the working capital. Also the inverse association between the inventory turnover and ROA causes the Productivity volume decrease. (Lazaridis and Tryfonidis, 2006). In another study it was suggested that it is impossible to predict the impact on the current ratio, quick ratio, cash conversion cycle, profits and leverage when a change in sales causes a change in working capital variables. Likewise, a managerial decision that changes components of working capital will cause an unpredictable change in the liquidity, profitability and leverage ratios. Overall, the money collection phase was absolutely associated to the current plus quick ratios, to the receivables and to the inventory conversion period. There are many firms in Pakistan that have invested ample amount of cash to sustain their working capital height. Then the way in which these companies sustain their working capital height will significantly affect the profitability. An inverse association of profitability with the determinants of the running capital i.e., with the debtors' collection time, stock change time, cash conversion cycle and the payment received time for the companies that are operating in Pakistan in the cement industry and also on KSE. Then, it's favorable for the companies to minimize the level of inventory turnover time and also the receivables collection period to maximize the

shareholder's wealth. Also the inverse association among the creditors and productivity is found because less money-making organization tend toward increase their bill payables time. By concluding the above findings it can be suggested that the companies should manage their working capital efficiently. If the companies efficiently manage their inventories, accounts receivables and cash margins it will improve their profitability (Rehman, 2006). In context of liquidity and working capital of the company, profitability improved lesser than the decrease in the intensity of working capital. There have been many cases where there is a positive as well as negative association of the working capital management with the productivity of the company. Many companies invest sufficiently in the working capital depending upon the size of their daily operations. In Belgian companies negative association has been observed among account receivable, accounts payable and inventory turnover and operating income. There are different approaches of different companies that can be either aggressive or conservative in investment and financing decisions. The negative relationship between the profitability, investments and financing strategies has been found using regression models. Companies having risk taking working capital strategy often gets negative return. The sum of working capital changes according to their needs of the operations of any company as does the rate of its internal cash generation. The study on paper and printing industry has pretty high values on the different aspects of the working capital and

also they have shown an optimistic relationship with productivity. In an analysis of 349 telecommunication equipment companies, negative association was observed among working capital, profitability and liquidity. The efficiency of the working capital management can be better by decreasing the payment period. It is also analyzed that the managing of inventory in the selected companies might not be efficient enough. According to the statistical tests the management of working capital has insignificant impact on the profit margins and ROA. This is because in telecommunication industry, huge equipment and towers have to be installed as the fixed assets. Also a poor management of accounts payable and accounts receivables has been noticed. There are also evidences from the private sector and manufacturing concerns in Srilanka that informal policies regarding the working capital and the size of organization influences the working capital strategies and approaches associated with it. Also, the profitability of the companies does have an impact on the methods relating to the working capital control and planning. This article attempts to place working capital policy in perspective with other policies of the small business. Contrary to common usage, working capital policy should be expressed in terms of asset liquidity, deferability of current liabilities, predictability of sales, and composition of financing (particularly debt), rather than in terms of net working capital magnitude (CA minus CL).

The distinction is critical for the small business because (1) initial liquidity is

generally poor (2) postpone ability of current liabilities is both an unknown and risky element (3) sales predictability when attempted is low; and (4) long-term capital is difficult to obtain (Pandey and Parera, 1997). Those interested in maintaining and extending the small business sector should increase interest in this critical area (Brain, 1996). The inefficient association of the working capital consequences in improper share of resources that will reduce the benefits that can be achieved through the current investment. If the investment in working capital is less, the firm can lose many of the profitable investment opportunities and may also get in a position to suffer short term crisis relating to its liquidity, resulting in degradation of credits of the company (Afza and Nazir, 2007). The administration of working capital is very vital in small scale firms because the maximum investment is in short term assets. Moreover, short term liabilities are also mainly externally financed. Financial data of 8,872 Spanish small and medium .Organizations for the period 1996-2002 has been analyzed. The results showed an important inverse association among productivity and the accounts receivables compilation time and ITO time and no effect of the accounts payable period. It has to be renowned that the large firms are generally more inefficient while managing working investment and but not with industry's concentration. Profitability is inversely related with liquidity of the organization (Shin and Soenen, 1998).The under discussion research comprises on the results of annual ratings regarding the management of working capital published at CFO magazine. Also the working capital measures are not static, there have been

different requirements of working capital in different sectors and therefore measuring criteria is also different. These findings are important as they provide imminent look to the performance of the working capital across time, and also shed light on working capital management across different sectors (Chiou and Cheng, 2006) . The aggressive and conservative strategies vary from industry to industry based on the size,s leverage and profitability of the firms (Filbeck and Krueger, 2003).The strong inversely negative relationship between the asset of the company and the policies relating to liabilities is found. The working capital asset policies implemented in a relative aggressive way are to be balanced by the financial policies relating to working capital in a conservative way too (Weinraub and Visscher, 1998). It is also clear that additional working capital is also required for increasing level of direct investment. As a result, these researchers visited the executives of the Japanese owned companies to determine the practices that have been practiced by them regarding the working capital. In another study it was observed that the main purpose of the Japanese shareholders was to ensure the supply of short term resources and also short term loans to facilitate the targeted output level. And this was the most prioritized objective being focused by them. Also the respondents confirmed that most of the short term funds were being provided by the Japanese investors therefore increasing the chances that the anticipation in the keiretsu system has been made. Effective management of liquidity involves the management of short term resources and

short term sources to avoid the failure of fulfilling the short term obligations and due obligations of the company through its most liquid assets and to keep away from the situation in which the current assets do not exceed up to the undesired level. The association with liquidity was compared to the earnings margin of the firms by the use of current ratio and cash operating cycle through the use of correlation and regression analysis of Saudi Arabian joint stock companies. The results indicated that the short cash operating cycle has a greater relationship on productivity than the current or quick ratio. The concluded result was stable and contained significant implications for the payment of short term obligations of the companies in Saudi Arabia. Two major conclusions that were drawn are the indication of the inversely affiliation of profitability with the factors that determine the liquidity position like the current ratio and the cash gap and the second drawn conclusion was the great variation among industries relating to considerable measure of liquidity (Eljelly, 2004). Overall efficiency indices for the measurement of productivity and use of resources were calculated unlikely of calculating some common ratios of the working capital. Setting industry norms as a bench mark for achieving the targeted levels for the individual firms, this paper also calculated the time taken by any firm in achieving its targeted level of achieving the higher efficiency. The influence of an overall firm's industry on its individual working capital management was examined. Using data on 1,181 U.S. firms over the period 1960 to 1979, a conclusion was made that a firm

working capital management policies are influenced by the overall industry and is stable over time. From these studies, a conclusion was made that firm's investment in working capital are highly influenced by the sales growth and industry practices (Hawawini et al., 1986).

The two main goals of any firms are liquidity and profitability. There exist many types of costs that are related to the excesses and shortages of the levels of working capital in terms of investing and financing. If these costs are effectively managed, then the overall profitability of the firm can be increased to a maximum level. The implication of these objectives is that the decisions that maximize the profitability do not tend to increase liquidity (Moyer et al., 1995). Conversely, keeping in view the liquidity of the company is not advisable because it will negatively affect profitability. Most of the business operations are affected by the level of working capital either positively or negatively. Purchase of raw materials results in the increase of investments or the increase in the payables or also in the payment of cash to the vendors whereas production in the company results in the increase in the finished goods or the increase in the level of work in progress inventories. Sales result in decrease in the level of work in process inventory and increases in the level of cash and receivables. The management of all the above mentioned activities is much consuming and can require additional much time if the investments in the working capital and short-term financing are even managed properly. It is therefore the reason why managers spend much of their time in management of working capital for the flat

operation and also in the management of the short term debts (Scherr, 1989). Raw materials inventories are used to make schedule of the production easier, to take advantage of the changes in the prices in markets and to mitigate the risk of shortages in supplies. If the raw material stock is not present, then the purchases would be on the high priced than normal rate. This will result not only in the mean high ordering costs and lower discount in the quantity, but will also cause interruptions in production due to the procurement problems of the raw material in time. So, every company prefer to purchase enough raw material so that the interruptions in the operations due to delay in the procurement process do not occur. On the basis of the level of stability relating to balances as compared to fluctuations in the volume of production and resulting sales, division of short term assets can be made into fluctuating and permanent assets. The level of permanent current assets remains unchanged regardless of the fluctuations in volume of sales or change in the production capacity. Safety stocks of inventories and cash are included in the permanent short term assets. Mostly, they are used to meet the long-term minimum needs of investment in the stage of current assets. The height of enduring current assets remains constant over a long span of time and is therefore can be compared with the company's fixed assets because investments in permanent current assets is internal, i.e., all the investments remains within the company. The main difference between fixed current assets and permanent current assets is that fixed current assets do not change physically with time,

although there are slight changes like depreciation and change in the market value whereas permanent current assets constantly change in physical terms. Due to the presence of large amount of inventories in the stock, companies stuck substantial amount of cash in them. Therefore it is suggested to manage the level of inventories effectively to decrease the inventory turnover time and to effectively manage the manufacturing operations. However, neglecting the efficient management of inventories can effect a company's short term and long term profitability. Inventories are the least liquid categories from the entire current assets highest yield should be provided by it to justify investment (Block and Hirt, 1992). Overall, there are three motives for holding inventories in line with that of cash, first one is the transactions motive, second one is the precautionary motive and the third one is speculative motive. The first one, i.e., the transaction motive put an emphasis on the fact that inventory should be maintained in sufficient amount so that there is a smooth operation among the purchase of raw materials to the final goods production or sales to the final consumers.

The second motive states that the inventory should be kept on hand to that level so that the risk of shortage in supplies can be minimized i.e., to mitigate the risk of demand and supply factor. The third motive i.e., speculative motive refers in gaining the advantage through sufficient level to take the advantage of any price change. In the nutshell, management has to effectively manage the inventories level so that the

situation of between demand and supply does not exist, to track the price changes in the market and to adjust accordingly, to have a knowledge of shortage and ordering costs of the inventory, to ensure that the inventory level shall meet the increasing production capacity of the production department and finally to have a knowledge of peak times and the variability associated with it (Stevenson, 1982). Practical management approaches are also determined by cultural practices, norms and believes. Government regulations and cultural factors also influence the working capital management policies so these factors should also be kept into consideration when designing such policies. (Williamson, 1985) Management of any company in general and working capital in particular, has become a two-edged sword. On the internal basis, working capital techniques applied to minimize the associated costs and to maximize the benefits associated with it. Externally the aim is to bridge the relation with the suppliers and customers to increase firm value. This is done by reducing the cost of inter-firm transaction and creates value of the company in a win-win condition (E. and Alvarez, 1998) When any company maintains its liquidity through borrowing, then there exists a trade-off between the profit earned from the investments in the assets that were financed from borrowing and the financing charges payable to creditors. Concluding, it can be said that the too much little level and too high level of liquidity, both have costs associated with them (Yeager and Seitz, 1989). Most of the companies would like to make sales on cash rather on the credit to avoid the excessive payables but the

market pushes them backwards in terms of the competition. Also the risk is slightly higher in the sense that the trade creditors do not rely on the collateral or securities like the banks or financial institutions rather the trade is on the trust and reputation of the company (Fafchamps, 1997). Firm's operating efficiency can be valued better through its cash flow position. There are two reasons for it. First, cash of the company is the ultimate source of value, that is, when makes investment in the resources the consumption is most likely to be delayed and the future consumption of various goods and services is made through the medium of exchange i.e., the cash that permits the company to do so. It is also a common concept that the worth of assets is determined by its ability to provide future cash flows to the company. Second, future benefits needs to be measured through some common measuring unit and cash serves as a measuring unit for this and also to make comparison of the future benefits of investment and operating opportunities (Stickney, 1996)

#### 9. LIMITATION OF STUDY.

The study is solely based on the financial data obtained from various volumes of Bombay stock exchange official directory for the sample companies. Thus the study suffers from all the inherent limitations of published financial data. Besides, it also have the limitations of the secondary data. The size of the sample is restricted because of the selection of the companies has been done on the basis of uniform accounting year from 1st April to 31st

March. Therefore, the limitations of small sample are also reflected very much in this study. The generalisation about the manufacturing industries has been made with much deliberation and care. Still the existence of any flaw thereof cannot be totally ruled out.

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## A Study of Cost and Returns on Cultivation of Paddy in Nizamabad District

DR. M. THUKARAM\* ,  
V. JAGADISHWER\*\*

**Abstract:** In India, 75% of rural population comprises small and marginal farmers, landless labourers and other disadvantaged sections of society. The economy of the Nizamabad District is primarily of agrarian in nature as 80% of its population depends on agriculture. The main food crops grown are Maize, Jowar, Turmeric, Ground Nut, Chilies, Sugarcane, Cotton, Oilseed and the Predominant food crops are Paddy and Pulses. The Nizamabad district is blessed with River Godavari and its Tributary Manjira river. There are dams constructed on these rivers viz, Sriram Sagar ( Pochampad Project), Nizamsagar and Pocharam which are the major sources for irrigation. Apart from these reservoirs, Ramadugu, Nallavagu dams were also constructed for irrigation purpose.

### Objectives of the Study:

1. To study the total cost per acre in cultivation of crops especially Paddy crop and the scale of Finance.
2. To study the Returns on Paddy Per acre.
3. To study the views of farmers on change in the crops.
4. To study the views of farmers on the crop holiday.

### Research Methodology:

The research study is based on primary data. The data has been obtained by administering the questionnaire to the paddy farmers.

There are 3 revenue divisions in the district for the revenue administration i.e Nizamabad, Bodhan and Kamareddy respectively. The villages chosen for the research study in

Nizamabad division are Kondur, Gutpa and fathepur, in Bodhan division, Salampad, Sangam and Shantapur and in Kamareddy division, Palwancha, Adloor Yellareddy and Chinna Mallareddy respectively. From each village 12 farmers have been chosen for the study. Thus the total sample size is 108

Findings:

Table 1.1: Comparative statement of expenditure and scale of finance for each crop per acre during the year 2012-13

Sl. No.	Crop	Actual Exp. Minimum	Actual Exp. Maximum	Scale of Finance Minimum	Scale of Finance Maximum	Difference Minimum	Difference Maximum
1.	Paddy	8,000	12,000	6,900	12,000	-1100	-4000
2.	Sugar cane(Plant)	18,000	25,000	15,000	17,500	-3000	-7500
3.	Sugar cane (Ratoon)	13,000	17,500	12,000	15,000	-1000	-2500
4.	Sunflower (Rainfed)	6,900	6,500	5,600	6,500	-1300	-
5.	Sunflower (Irrigated)	4,400	6,500	4,200	5,300	-200	-1200
6.	Jowar Dry	3,000	5,000	2,900	3,600	-100	-1400
7.	Vegetables (HYVP)	6,000	9,500	9,600	10,800	+3600	+1300
8.	Vegetable (Open Pallinated)	6,000	6,500	6,200	7,500	+200	+1000

Source: Compiled by the researcher based on the questionnaire administered and the circular on scale of finance for crop loans approved by the Dist. Technical Committee

It is observed from the table 1.1 that the actual expenditure is more than the crop loan scale of finance in all the crops except Vegetables.

In the open ended question, it is observed that the payment to the outside labourers is

Only taken in to criteria, while calculating the total cost. The day to day efforts of the farmers

Are not calculated as labour charges.

Table 1.2: Returns on Paddy per acre ( Paddy Variety 1010)

Sl.No	Crop	Minimum Yield per acre (in Quintals)	Maximum Yield per acre (in Quintals)	Average Yield Per acre (in Quintals)	Price Per Quintal Rs.	Total Returns Rs.
1.	Paddy	13	21	17	1200	20,400

Source: Compiled by the researcher based on the questionnaire administered

It is observed from the table 1.2 that the total revenue per acre on an average is Rs.

20,400/- in case of paddy (Paddy Variety 1010 is cultivated in the district by the maximum number of farmers. The return to a farmer for the efforts made for six months i.e. from June to Nov.2013.

On an average Rs. 10,000/- is the approximate cost, except the overall supervision

Charges of the farmer for the 6 months Kharif season.

It is further observed that Rs.1733.33 is being received as monthly labour charges by a farmer.

Table 1.3: Respondent Profile based on change in the crops

Sl.No	Farmer's willing to change the crop	%	Farmer's Unwilling to change the crop	%	Not responded	%
1.	26	24.07	74	68.52	08	07.41

Source: Compiled by the researcher based on the questionnaire administered

It is observed from the table 1.3 that the 68.52% of the majority farmers are unwilling

to change the crops.

Table 1.4: Respondent Profile based on the crop holiday

Sl.No	Farmer s willing the crop holiday	%	Farmer s Unwilling for the crop Holiday	%	Not responded	%
1.	12	11.11	68	62.96	28	25.93

Source: Compiled by the researcher based on the questionnaire administered

It is observed from the table 1.4 that the 62.96% of the majority of farmers are unwilling

For the crop Holiday.

#### Conclusions & Suggestions:

1. The actual expenditure is more than the crop loan scale of finance in all the crops except

Vegetables. In the open ended question, it is observed that the payment to the outside

Laborers is only taken in to criteria, while calculating the total cost. The day to day efforts

Of the farmers are not calculated as labor charges. So, it is suggested to enhance the crop

Loan scale of finance. The farmers are suggested to cultivate vegetables as the returns are more than the other crops.

- 2 The total revenue per acre on an average is Rs.20, 400/- in case of paddy Variety 1010,

Which the maximum farmers are cultivated in the district. It is the return to a farmer for

The efforts made from June to Nov.2013. On an average Rs. 10,000/- is the approximate

Cost, except the overall supervision charges of the farmer for the 6 months Kharif season

Approximately. It is further observed that Rs.1733.33 is receiving as monthly labor charges

By a farmer. So, it is suggested to enhance the Price per quintal to the crops. Further, the

Farmers are suggested to cultivate vegetables as the returns are more than the other crops.

3. The 68.52% of the majority farmers are unwilling to change the crops. So, it is suggested

To create awareness among the farmers on the advantages of change in the crops.

4. The 62.96% of the majority of the farmers are unwilling for the crop holiday. It seems that the

Farmers might be afraid of loss of their employment and livelihood. So, it is suggested to create

Awareness on the advantages on crop holiday with suitable employment guarantee schemes.

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Dr. M. Thukaram  
Head & Reader, Principal Investigator  
Department of Commerce  
Girraj Govt. College (Autonomous )  
Nizamabad Dist. A.P.  
Mobile: 9440031720  
E.Mail: dr.thukaram07@gmail.com

And

V. Jagadishwer  
Lecturer in Commerce,  
O/O Commissioner of Collegiate Edn.,  
Nampally, Hyderabad.500007  
Mobile:9949696465  
Email.ID: vjagadishwer@gmail.com



## CUSTOMER SATISFACTION TOWARDS ATM SERVICES

T.Lokeswara Rao\*

Dr.G.Tulasi Rao \*\*

M.Sreeramaraju\*\*\*

**Abstract:** Banking reforms made customers to access their services more conveniently. The study focus on the customer satisfaction towards ATM services offered by the banks and tries to suggest some ways out to improve their level of services to keep the force on.

ATM services play key role to minimize customers' time and energy. Having satisfied customers and to retain them for a longer period of time it is necessary to provide ATM services on round the clock as well as anywhere in the nation

ATM service quality positively and significantly contributes toward customer satisfaction. The ATM services have a positive impact on the customer satisfaction; if proper functioning is ensured by the banks, there will be significantly higher customer satisfaction.

Further development of new technologies the industry will likely continue to evolve allows banks to create what looks like a branch in a business building's lobby without having to hire manpower for manual operations. The branches are running on the concept of 24 X 7 working, made possible by the use of Tele banking, ATMs, Internet banking, Mobile banking and E - banking.

Keywords: ATM; customer satisfaction; Indian banks; private sector banks; public sector banks.

### Introduction

There is a long history of banking services in India. The history of banking is as old as human history. More particularly in the area of Information Technology (IT), where India has definitely an edge over its competitors, remaining away or uniformity of the world trends is untenable. Financial sector in general and banking industry in particular is the largest spender and beneficiary from information technology. This endeavors to relate the international trends in it with the Indian banking industry.

ATM service is more preferable and convenient to the people, because the modern world is fully computerized and it is easy to access to them from anywhere. Through the ATM service, withdrawal, deposit, balance enquiry and many more facilities are processed in quick manner as they are designed by the telecommunication industry as a more efficient way to send computer data over a single network. The study wish to probe into the facts so as to understand the services provided by the banks and also to know the strength and

weakness of the ATM services provided by the banks. The study is to have an insight in which the customer's satisfaction with the ATM services and also to identify the customer's opinions / expectations with regards to the same

Today, most of the transactions can be done from the home and customers need not visit the bank branch for anything. Technology is no longer an enabler, but a business driver. The growth of the internet, mobiles and communication technology has added a different dimension to banking.

Almost all the people in this study are salaried people, they hardly find time to go to bank for banking transactions. Since the ATM services were provided across the city, it is easy for them to transact their banking activities. ATM cards are commonly used in this study area.

### **Hole-in-the-wall machine**

Luther Simjian came up with the idea of creating a "hole-in-the-wall machine" that would allow customers to make financial transactions. In 1939, Luther Simjian applied for 20 patents related to his ATM invention and field tested his ATM machine in what is now Citicorp. After six months, the bank reported that there was little demand for the new invention and discontinued its use.

### **Brief history**

The idea of self-service in retail banking developed through independent and simultaneous efforts in Japan, Sweden, the United Kingdom and the United States. In the US patent record, Luther George Simjian has been credited with developing a "prior art device". Specifically his 132nd patent (US3079603) was first filed on 30 June 1960 (and granted 26 February 1963). The roll-out of this machine, called Bank graph, was delayed by a couple of years, due in part to Simjian's Reflectone Electronics. being acquired by Universal Match Corporation. An experimental Bankograph was installed in New York City in 1961 by the City Bank of New York, but removed after six months due to the lack of customer acceptance. The Bank graph was an automated envelope deposit machine (accepting coins, cash and cheques) and did not have cash dispensing features.

The first of these that was put into use was by Barclays Bank in Enfield Town in North London, United Kingdom, on 27 June 1967. This machine was the first in the UK and was used by English comedy actor Reg Varney, at the time so as to ensure maximum publicity for the machines that were to become main stream in the UK. This instance of the invention has been wrongly credited to John Shepherd-Barron of printing firm De La Rue, who was awarded an OBE in the 2005 New Year Honours. This design used paper cheques issued by a teller, marked with carbon-14 for machine readability and security that were matched with a personal identification number.

### **Definition of 'Automated Teller Machine - ATM'**

An electronic banking outlet, which allows customers to complete basic transactions without the aid of a branch representative or teller. There are two primary types of automated teller machines, or ATMs. The basic units allow the customer to only withdraw cash and receive a report of the account's balance. The more complex machines will accept deposits, facilitate credit card payments and report account information. To access the advanced features of the complex units, you will usually need to be a member of the bank that operates the machine

### **Objectives of the Study**

1. To study the growth and progress of ATM services
2. To understand the various services rendered through ATM
3. To evaluate the attitude of customers towards ATM services
4. To measure the customer satisfaction towards ATM services
5. To offer some suggestion to improve the working conditions of ATMs

### **Literature Review:**

**Shastri R.V**, (March, 2003) "Recent trends in Banking Industry" IT emergence, Chartered Financial Analyst, ( pp 45-56) in this

article stated that liberalization policy and intense competition keeps every banker on his toes. Implementation of Information Technology (IT) helps for maintaining proper accounts especially in decision making process. He also stated that facilities like ATM, anywhere banking, Internet and mobile banking have imported customer service which in turn helps for better customer relations management. He also explained the challenges faced by banks because of IT implementation like employment problem and security concerns. He suggested that the customer delight is the primary goal of all future IT initiatives.

**James Shoba Kamala** (2008) in her study entitled "A study on customer's satisfaction on ATM in Tirunelveli city of Tamil Nadu" has made a detailed survey regarding the customer satisfaction towards ATM services. She observed that the respondents were conscious about more innovative techniques in ATM services.

**Business Line** (2005) entitled "Customers want more personalized ATM services", the survey conducted for NCR by AC Nielsen ORG-MARG, revealed that more than 50 percent of those surveyed preferred the ATM channel for communication or information on products and services, while 32 percent voted it as the preferred method of basic information. Another 21 percent said that they would even take pre-approved, personalized offers directly from the ATM.

**G.S.Sureshchander** (2003) in his article titled Customer perceptions of service quality in the banking sector of a developing economy: a critical analysis'said that technological factors needed to be upgraded.

An **automated teller machine (ATM)** (American, Australian, Singaporean, Indian, and Hiberno-English), also known as an **automated banking machine (ABM)** (Canadian English), **cash machine**, **cashpoint**, **cashline** or **hole in the wall** (British, South African, and Sri Lankan English), is an electronic telecommunications device that enables the clients of a financial institution to perform financial transactions without the need for a cashier, human clerk or bank teller. ATM- Financial networks

Most ATMs are connected to inter bank networks, enabling people to withdraw and deposit money from machines not belonging to the bank where they have their accounts or in the countries where their accounts are held (enabling cash withdrawals in local currency). Some examples of inter bank networks include NYCE, PULSE, PLUS, Cirrus, AFFN, Interact, Inters witch, STAR, LINK, Mega Link and Banc Net.

ATMs rely on authorization of a financial transaction by the card issuer or other authorizing institution via the communications network. This is often performed through an ISO 8583 messaging system.

Many banks charge ATM usage fees. In some cases, these fees are charged slowly to users who are not customers of the bank where the ATM is installed; in other cases, they apply to all users.

In order to allow a more diverse range of devices to attach to their networks, some inter bank networks have passed rules expanding the definition of an ATM to be a terminal that either has the vault within its footprint or utilizes the vault or cash drawer within the merchant establishment, which allows for the use of a scrip cash dispenser.

ATMs typically connect directly to their host or ATM Controller via either ADSL or dial-up modem over a telephone line or directly via a leased line. Leased lines are preferable to plain old telephone service (POTS) lines because they require less time to establish a connection. Less-trafficked machines will usually rely on a dial-up modem on a POTS line rather than using a leased line, since a leased line may be comparatively more expensive to operate versus a POTS line. That dilemma may be solved as high-speed Internet VPN connections become more ubiquitous. Common lower-level layer communication protocols used by ATMs to communicate back to the bank include SNA over SDLC, TC500 over A sync, X.25, and TCP/IP over Ethernet.

In addition to methods employed for transaction security and secrecy, all communications traffic between the ATM and

the Transaction Processor may also be encrypted via methods such as SSL.

### **The Functions of an ATM in the Bank**

Automated Teller Machines, or ATMs, are a modern convenience that most bank customers are used to by now. These machines can do almost all functions that tellers handle. This means a consumer can avoid waiting for a teller by using an ATM, since ATMs generally provide faster service. Banks provide their customers with cards to access these machines. When you don't have access to your own bank's ATM, you might have to pay a charge to access an ATM run by a different bank.

#### **Make Deposits**

Bank customers deposit money and checks into ATMs. The ATM accepts the check or cash and provides a receipt. Make a deposit by slipping the check or cash into a specified slot at the ATM. Many ATMs don't require customers to put the check or cash into an envelope first. The ATM then provides confirmation that the money has been deposited into the customer's account.

#### **Withdraw Money**

Now that there are ATMs available on nearly every corner, bank customers have learned that they need not carry their cash with them all the time. If you need access to money, just head for the nearest ATM. Banks set limits on how much cash can be withdrawn within a specified time period. With

an ATM, you can always access your cash, even at times when bank branches are closed (see references 1, 2).

### **Other Banking Functions**

ATMs provide a variety of other banking functions. They provide a statement of your transactions and balance available in your bank account after each transaction. Use an ATM to transfer money between your different bank accounts. For instance, if you have a savings account and a checking account with the same bank, you could transfer money from one account to another. If your credit card is linked to your ATM card, you could make payments to your credit card account through the ATM. ATMs provide mini-statements that show some of the recent transactions on your bank account.

#### **Advantages of Automated Teller Machines (ATMs) ↓**

1. ATM provides 24 hours service
2. ATM gives convenience to bank's customers
3. ATM reduces the workload of bank's staff.
4. ATM provide service without any error
5. ATM is very beneficial for travelers
6. ATM may give customers new currency notes

7. ATM provides privacy in banking transactions

#### Viable development of ATM industry

ATMs, banks are able to serve customers outside the banking halls. The most exciting experience for the customers as well as the bankers is that the plastic card is replacing all the hassles of bank Transactions, personal attendance of the customers, banking hour constraints, and paper based validations. Now a customer can withdraw money, deposit money with and without envelope, transfer fund from card to account, pay insurance bills, apply for loan, book air and train tickets, movie tickets, and avail coupons. Even gold coins are possible to withdraw from ATM counters. Growth of the Industry As per the Global ATM Market and Forecasts to 2016, the maximum growth of ATMs is happening in Asia pacific region. India and Indonesia are having one fourth of the number of ATMs, and china is accounted for half of the New ATMs. Worldwide growth of ATMs is steadily increasing. The growth of ATMs in Western countries and other advanced countries has reached at a mature stage. However; there is a lot of scope of growth of ATM industry in developing countries like India.

Period	Features	Functionalities
1988-1994	the Initial Period	Deposit of Cash Withdrawal of Cash

1995-1999	Early Developments	Mini Statement Balance Inquiry
2000-2001	First Extension	Coupon Dispensing
2002-2004	Extended Function alities	Fulfilling Requests from Customers (e.g. Check Book)  Account Transfers  Touch Screen Menus/Facilities
2004-2006	non-banking services	Ticket Booking- Railway and Airlines Bill Payments  Mobile Recharges
Future 2007 onwards,		Check Deposit with Scanning Customized ATMs Ubiquitous Multifunction ATMs Biometric ATMs

### **Indian ATM Industry- Vision 2018:**

Increasing Penetration of White Label ATMs to Intensify Growth", the ATM industry in India has grown at a CAGR of 26.8% over the period, FY'2008-FY'2013. Public sector banks held the lion's share in overall number of ATMs in the country, holding 72.2% share in FY'2013.

The number of ATMs by the private sector banks in the country has grown significantly from the past 6 years. The total number of ATM terminals deployed by private sector banks in India has risen from 11,967 in FY'2008 to 43,101 in FY'2013. The contribution of foreign banks to the total number of on-site ATM's in the country has been 0.5% whereas to that of total number of off-site ATM's has been 1.7% in FY'2013.

It has been observed that in FY'2013, the contribution of financial transactions through solar ATMs in India is around 77.1%, whereas in case of non-financial transaction which consists of taking out mini statements and checking balance inquiry, the share is around 22.9% as of FY'2013.

The market size of ATM cash management system in India was around INR 2,000 crores in FY'2011 which inclined to INR 2,105.3 crores in FY'2013, thus showcasing a CAGR of 2.6% from FY'2011-FY'2013.

#### **ATM challenges in India**

##### **Power, environment and security**

The biggest challenge that face while deploying ATMs in India is the availability of power. So we use solar power in certain pockets. Another challenge is environmental conditions. We have machines which work in even 45 degrees Celsius temperature. The other aspect is security. As ATM penetration increases, there will be chances of frauds and crimes. Even now we see some rudimentary crime happening such as thieves picking up machines; so we now bolt machines to the ground. We have also seen some sophisticated crime happening such as card skimming, wherein your card data gets compromised. From the technology perspective, we are coming up with anti-skimming devices.

#### **Shortage of ATM machines in India**

India today have about 74 ATMs per million of the population. In comparison, China has over 200 machines per million and the US has 1,300 ATMs per million. So ATM penetration is very low but then even bank penetration is low in India; 50% of the population is unbaked. This is in sharp contrast with other emerging economies.

But by 2017, expecting ATM population in India to be 400,000 compared with around 140,000 at present. This will be largely driven by banks going to rural areas and government initiatives such as direct benefit transfer. Today, we are seeing a 25% year-

on-year growth in ATM penetration and this will increase, but have a long way to go.

As of now, find ATMs in clusters at one location, mostly in metros and urban areas. These need to be spread out across rural and semi-rural geography.

### **Sustainable ATM Services in future**

#### **The WLAs charge**

The white label ATMs (WLAs), for which the Reserve Bank of India has issued licences, will also help in penetration. These will be private label ATMs and will not be any bank's brand. For instance, Tata Communications has launched Indicash and it is using our ATMs.

The first five transactions are free anyway. Beyond that banks will take a call on charging customers. WLAs will be paid by the banks whose cards are used at these ATMs. Will this help banks to minimize ATM cost In fact, the ministry of finance took an initiative wherein it divided the country into 16 clusters and said that all public sector banks will buy under a common platform and these clusters were auctioned to service providers. These service providers were asked to deploy ATMs on an outsourced model for public sector banks. The branding will be that of the bank, cash will be provided by the bank, but it (the unit) will be managed by service providers.

#### **Rural Indian post offices may set up ATMs**

The Indian government may allow post offices to set up ATMs at rural areas, in an attempt to strengthen the role of India Post in financial inclusion. India Post, which is working on major improvements in the payment process for social sector schemes, such as the Indian job-guarantee scheme NREGA, will set up ATM networks in selected areas to give people access to online banking services.

"Central, state and local governments are increasingly preferring government benefit payments to be routed through banks rather than using postal services. We need to innovate so as to continue to play dominant role in financial inclusion," said a senior official with ministry of communications and information technology.

According to the official, the move to provide ATM services to its account holders will put them on a par with banks and other financial institutions working in this space and further strengthen their case for a banking license

#### **Solar ATMs for Rural Area**

Vortex, a young Chennai-based company, could be adding new energy to India's rural economic growth with its award-winning solar-powered automatic teller machines (ATMs). Called "GramatellerIndia ("graama" means "village" ), the low power consumption machines operate at one-tenth the cost of conventional ATMs. State Bank of

India, the country's leading banking chain, has already ordered 300 Gram tellers; 19 other banks are using these sun-powered cash venders in villages and small towns. The immediate demand for the solar ATMs reflects and empowers India's quietly surging rural economy, estimated to be worth about US\$450 billion. Rural India, considered the backbone of the national economy, is expected to overtake the urban market in size by 2017.

The Gram teller was a brainchild of the Indian Institute of Technology (IIT), Madras (Chennai). Vortex founders Vijay Babu and Lakshminarayan Kannan, both IIT alumni, aimed at enabling small towns and villages, considered unviable banking options, to have a banking and ATM facility for the first time. Babu and Kannan's initial efforts with solar-power ATMs were greeted with disbelief by bankers. Villagers folks were also skeptical - until they experienced how ATMs could help them directly access their cash.

"Solar power for ATMs is viable only if the ATM consumes less power [than traditional sources] and does not need air-conditioning, as is the case with Gramateller," Vortex founder Babu told Asia Times Online. "This demand for solar power is different from that found in developed countries, where it is wanted more for its non-polluting nature." A single Gramateller unit saves more than 90% of the annual costs of maintaining a conventional ATM, half of whose annual bill of 144,000 rupees (US\$2,530) goes on air-

conditioning, electricity and generator running costs.

The solar ATMs can function in temperatures from 0 degrees to 50 degrees - and without air-conditioning. ATM security guards may be the only people with a grievance against the new devices - they can no longer sit or sleep in ATM cubicles in cool bliss. Maintenance may not be much of a problem with solar ATMS, but Babu discovered other problems - the solar panels require a shadow-free area, and environmentally healthy local efforts to plant more trees can get in the way. One particular ATM location in a village in Punjab had to be moved several times to escape the shadow of trees growing nearby. Babu is convinced solar-powered ATMs are appropriate across India and further a field, not least in cities where extended power rationing is common.

Vortex plans for expanding in Asia received a boost last month when the Washington-based World Bank's International Finance Corporation (IFC) on June 25 announced a \$2.7 million equity investment in Vortex.

"The investment will help in taking basic banking and financial inclusion schemes to rural and semi-urban areas in India," says Thomas Davenport, IFC Director for South Asia. "Bringing banking close to home means a lot in a country where less than one-fifth of over 600,000 villages have a banking touch-point."

IFC expects the ATM market in India grow three-fold over the next three years, with the bulk of machines bound for remote areas. The Indian government plans to extend banking services to remote areas, and the rugged solar ATMs fit the bill.

"Several members of the IFC team have used Vortex ATMs and the experience is not very different from using a conventional ATM," Davenport said in an e-mail to Asia Times Online. "The flexibility to work on alternate/renewable power sources is truly meaningful especially because many parts of South Asia do not get traditional power supply. These ATMs work on both normal power and solar sources."

The solar ATMs could be the biggest blessing yet to serve the rural banking industry, which made a net profit of \$347.96 million in 2010-11, and grew 5.5%. Saving bank deposits increased by \$2.62 billion in a year, according to the Reserve Bank of India report "Trend and Progress of Banking in India 2010-11".

The Indian government plans to have a mini-banking facility in each of India's 600,000 villages, with an aim of opening about 25 million savings accounts in villages. Vortex expects to install about 5,000 solar ATMs in India by 2015, though the demand for the sunshine-powered cash venders could be 10 times as much.

#### **Conclusion:**

Indian customers have not only become technology savvy today, but also have started demanding more and more of quality and personalized services. With more of innovative or "high-tech" banking services provided to customers there has been growing concern for "high-tech" banking services, seeking involvement and interaction among various stakeholders.

Majority of customers are aware about the Cash withdrawal services of ATMs. Balance enquiry service is ranked on second position on awareness scale. In the same manner majority of customer prefers ATMs for withdrawal purpose while second preference is given to mini statement facility. There is no significant difference between the satisfaction level of public & private bank customers towards the ATM service. The awareness level about ATM services is affected by demographics of customers.

From enabling banking services to driving transformation in the Industry. Information Technology course do promise to change the pace of banking to the next few years. ATM's, Mobile bank and internet banking are going to make indoor in the banking sector in the near future Hence, the future for banking sector is going to make rapid straights in near future.

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\*T.Lokeswara Rao

Research Scholar JNTUK

and HOD of MBA KITS RCPM

E.G.Dt; e-mail.Id: [tvslokes@gmail.com](mailto:tvslokes@gmail.com) 9440405234

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