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Vice Chancellor speaks

Prof. Dr. Shivajirao Kadam
M.Sc, Ph.D
Vice Chancellor
Bharati Vidyapeeth University
Pune

In recent years, the education system has undergone a transformation, teaching pedagogy is strengthened by research work thus making education a wholesome experience.

The research based journal of IMED "JMSRE" has evolved into a more comprehensive journal. This has added an extra mile to the academic exposure to our students, readers and contributors. The wealth of information shared through the journal has advanced our academic rigor to the next level of excellence. These contributions reflect the broader spectrum of innovative measures that we undertake on continuous basis to ensure that good industry- ready talent steps out of IMED.

The students are not only exposed to the didactic methods of teaching and learning but also guided to explore new ideas for the progress of the society. The wealth of knowledge and information enable them to confront the challenges head on and develop an inquisitive mind always wanting to learn, share and apply this knowledge to practical situations.

It is my pleasure to invite you to join the IMED family and help us in our journey of building a resourceful society.

My heartiest congratulations to the editorial board for their dedicated and painstaking efforts in making "IMED's JMSRE" a research journal par excellence.

All the very best.

Dr. Shivajirao Kadam

Chief Editor's Message

Dear Readers,

Greeting from Bharati Vidyapeeth Deemed University, Institute of Management and Entrepreneurship Development, Pune.

It gives me great pleasure to place before you the volume VI January – June 2013 issue of IMED –JMSR. This issue is a bouquet of multi flavor empirical presentations devoted always towards emerging areas of research.

At present, we are passing through a transition phase from a low labor cost advantage to a highly skilled and trained labor advantage. The time has come for our country to produce smart managers/ entrepreneurs who can think globally and act locally to fill up the gap between potential of man power with good communicative skills and tools of management. Keeping in view the global corporate challenges, we put our efforts to inculcate right attitude instilling the right ethics and values in the mind of our management students, which will foster creativity and innovation in the dynamic environment.

Today, creativity forms the core activity of growing section of the global economy – the so called "Creative Industry". Capitalistically generating (Generally non- tangible) wealth through the creation and exploration of intellectual property or through the provision of creative services. It has been a topic of research studies to establish that organizational effectiveness depends on the creativity of the workforce to a large extent.

Creativity and innovative management fills a crucial gap in management literature between the theory and practice of organizing imagination and innovation. It gives managers insights into introducing innovation within their organizations and accelerating the development of creative performance in their staff. The journal's central consideration is how to challenge and facilitate creative potential, and how then to imbibe this into result oriented innovative business development.

We at IMED keep pace with the changing global trends to provide common platform to academicians and corporates for discussions and deliberations through this referred research journal.

I congratulate our editorial team led by Dr. Sachin Kadam for bringing out yet another quality issue of our journal. I request all the readers to give suggestions to further improve the quality of the same.

Dr. Sachin S. Vernekar

From the Editor's Desk

Welcome to the January-June 2013 issue of the Bi-Annual journal of – BVIMED journal of Management & social Research. We thank the contributors for their valuable contributions to make the journal a success. The current issue is an amalgamation of empirical and conceptual papers with a good amount of depth and detail.

Sandhya Aggarwal in her paper titled "A Study of Reasons and Way Outs of Employee Retention in Indian BPO Industry" explored the various reasons for attrition and the actions which could be taken to prevent the attrition of employees in BPO industry.

Miss Sandhya Taneja, Dr. B S Rathore in their paper titled "Long working hours, Work Life Conflict and Health issues among IT Professionals in India" examined work life conflict in the IT professionals.

Tushar Sen in his paper titled Asian Emerging Markets: Strategies to manage the aftermath of global crisis.This paper outlines policies to help solve the debt overhang and bring about recovery from global crisis.

Prof.Shabana A.Memon ih her paer titled "Entrepreneurial Inclination Among the Business Management Students: An Empirical Study" analyzed various motivating factors which make the student select entrepreneurship as a career option as well as the various perceived difficulties which hinders the choice of the students in selecting entrepreneurship after their post graduate course.

Geetanjali Deshmukh in her paper titled "Effect Of The New Product Patent Regime On The R&D Expenditure And Business Strategies Adopted By The Indian Pharmaceutical Companies In The Post-Trips Period : A Case Study Of Dr.Reddy's Lab (DRL)" analyses the implications of a new IP regime on the R&D aspect and the business strategies of one of India's leading pharmaceutical company,viz, Dr.Reddy's Lab (DRL),in response to the new and challenging business environment brought about by the introduction of the new patent regime.

Satish Kumar and Ritesh Tiwari in their paper titled Monetary Approach to Exchange Rate Determination for India focused on the application of monetary model approach to exchange rate determination for the Indian rupee against the US dollar.

Prof. Asha Sharma and Dr. Punam Mishra in their paper titled Enhancing MSME Creditability: Performance & Credit Rating Scheme attempts to evaluate MSMEs rating scheme proposition.

Ritika Gauba in her paper titled Contribution of ITC e-Choupal Towards India's Dream of Inclusive Growth studied the initiative taken by the one of the largest corporations of India ITC in the year 2000 in the form of E-Choupal.

Dr. Sachin Kadam and Ms. Nimisha Bhargava in their paper titled An Appraisal of ICT Use in Generic HRM Activities from Automobile Domain presented a profile of various types of generic activities involved in HRM domain from automobile sector.

I take this opportunity to inform the esteemed readership that we have already started receiving papers for the next issue that is due to be published in June 2013 and are in the process of sending them for blind review. I would also exhort my academic colleagues to put pen or finger to keyboard and send us their valued academic / research contribution.

Your valuable suggestions and comments to improve the journal are always welcome

Thank you.

Dr. Sachin Kadam
(Editor)

Ms. Sucheta Kanchi
(Co-Editor)

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A STUDY OF REASONS AND WAY OUTS OF EMPLOYEE RETENTION IN INDIAN BPO INDUSTRY

Sandhya Aggarwal

ABSTRACT

If there is one industry that has emerged relatively unscathed in the economic downturn, it is call-center industry. As companies get more cost conscious, India is becoming more attractive as an outsourcing destination. The country offers many advantages like very good technical support, cheap manpower, skilled people and so on. India's time zone position has made the country a popular choice for outsourcing BPO activities. There is a lot of potential in the domestic market for a BPO; with companies like Exult, Ma Foi etc. entering the domestic BPO segment, the domestic market is gearing up for companies. "Business process outsourcing (BPO) is a broad term referring to outsourcing in all fields. A BPO differentiates itself by either putting in new technology or applying existing technology in a new way to improve a process." Present paper studies about the various reasons for attrition and the actions which could be taken to prevent the attrition of employees in BPO industry. The study is empirical in nature which contains primary data.

INTRODUCTION

If there is one industry that has emerged relatively unscathed in the economic downturn, it is call-centre industry. As companies get more cost conscious, India is becoming more attractive as an outsourcing destination. The country offers many advantages like very good technical support, cheap manpower, and skilled people and so on. India's time zone position has made the country a popular choice for outsourcing BPO activities. Employee Retention is one of the critical measures that should be looked into for the long-lasting strength and success of the organisation. Making employees feel their presence makes a difference in the organisation is an important way of retaining them. Some of the basic components an organisation has to focus on when retaining its employees are: Managing the organisation's culture and values, developing effective career opportunities, providing work-life benefits, providing high quality recognition and long-term rewards for the jobs done by the employees.

Table 1 Attrition rates (%) in BPO industry: A Global Outlook

Country	% Age
US	42%
Australia	29%
Europe	24%
India	18%
Global Average	24%

(Source-Times News New York)

Why people prefer to join BPO Industry

In general a person with any graduation or may not be a graduate if he/ She is very good in the required skills can join any of the BPO. Some BPO's like to take people with MBA but then again the specialization are of an individual hardly makes any difference.

Again, this is the industry; where there is no reference checks and very often people don't even specify there exact age. Lets me share with you some of the reasons as why people prefer to join a BPO:

Why people leave the BPO Industry

When there are so many benefits associated with BPO industry when there are so many privileges for the BPO employees than what makes them to change the company/industry? Is it only MONEY that matters or anything else as well? Here are some of the reasons for a BPO professional to change his/her job.

Table: 2 Factors Affecting reasons for Joining and Leaving BPO industry

Why people prefer to join BPO Industry	Why people leave the BPO Industry
Did not get a better job.	Lack of Growth
Find nothing better to do	Salary Limits
Education level doesn't matter	Low Status
Good work environment	For Higher education
Good Benefits	More time Consuming
Flexibility of time	Health Problems
Attractive life style	Monotony in the work
Transport facility	Not Suitable job for long-term career

Review of Existing Literature

A number of studies have been conducted on this issue however the importance is given to the recent studies. Lockwood and Ansari (1999) in a focus group study on recruiting and retaining information technology talent identified following retention strategies that were particularly successful in maintaining a low labour turnover rate. Sigler (1999) Identified that retention of talented employees can be a source of advantage for the firm and loss of these employees may be very detrimental to the company's future success. Sheng and Kleiner (2001) Identified that no longer people are expected to work for one company for their whole career and career development is a formal approach taken by an organization to ensure that people with the proper qualification and experience are available when needed. Wang and Kleiner (2004) Identified that hiring the right employees with high quality will increase the company's stability, competitiveness, and prosperity; pre and post-employment screening will improve and protect these expectations. Joshi (2006) The BPOs in India face an enormous challenge in reducing attrition rate and this being a nascent industry needs to draw parallels, examples from other industry practices as well as develop innovative Employee Relation Initiatives like reducing pressure from employees enhance satisfaction and better working conditions. Mehta (2006) The challenge for the HR professionals today is not only to attract and attain the right employees, but also to innovatively train them. Companies should not wait for any untoward event to occur, but proactively innovate and tailor their processes so as to train their people to align with the changing situations. This article discusses the strategies for effective recruitment and retention of employees, a major challenge in today's changing business scenario. Chakrabarti (2006) Interviews conducted with the employees leaving an organization can provide extremely helpful insights to the organization. The feedback provided can be utilized to frame and execute appropriate retention strategies and to overcome high employee turnover. This article tries to focus on the modalities of conducting

exit interviews, the problems involved and benefits expected out of it. Sireesha Mamidenna (2006) The success of BPOs hinges on the competence of their human resources. The outsourcing industry has evolved from being a peripheral player to strategic solutions provider to its clients. Given this shift in its profile, there is a need to have a re-look at the various HR-related dimensions in this sunrise industry. Evolving a set of practices, which are unique to the industry, will ensure better employee retention and productivity. Chebolu Radha Mohan (2006) Visualizing a grand future for the BPOs, in view of the growing market, the corporate houses have to make an attempt for putting in operation a new agenda of governance. This keeps in line with the objective of creating a new image for the `domain-specific vendors upon which the growth of the business rests. In this article, the core issues that find relevance in the image-making exercise are discussed besides revisiting the current scenario from a socio-cultural perspective. The article discusses the HR issues in the BPOs. Ratnam CS Venkata (2006) Of late, the demand for unionizing the BPO workers is gaining momentum across India. As aspirations and demands of the young and educated workforce of the BPO industry are quite different from the traditional workforce, unions are facing difficulties in organizing employees of this industry. Labor unions need to reinvent themselves to be of relevance to the workers in IT and IT enabled services. The article discusses problems of BPO employees and the ways to unionize them. Diganta Chakrabarti (2006) American companies are increasingly outsourcing Human Resource (HR) functions. This article focuses on the reasons behind such a move and also studies the possible impact on the profession of Human Resource Management (HRM) due to such outsourcing practices. And it also focuses on the opportunities available for India in the emerging scenario. Dasari Ravi (2006) Modern organizations are operating in an unprecedented, highly competitive and turbulent business environment, which is characterized by the globalization of business. Further, today's global workforce is more mobile than ever before. As a result we are witnessing a "war for talent" in the marketplace. It is becoming increasingly clear that employee attrition is a reality and organizations need to adopt a market driven approach in dealing with growing attrition. The article analyzes the importance of employee retention and talent management. Hora Gurdeep S (2005) talented professionals are rewarded more in this era of knowledge economy. HR Heads are also responding through conscious and specific people management strategies to improve the overall organizational performance. These days, job rotation and multi-tasking have become introductory elements of excitement and challenges in the jobs at the organizations. In such a scenario, acquisition of talent and retention would emerge as the key-driver of all HR initiatives in the knowledge economy.

Objectives of the Study

The broader objective of this study is to know about the impact of failure factor responsible for employee's attrition.

The specific objectives are as follows:

1. To know about the factors affecting employees stay in the current job in BPO industry.
2. To know about the factors contributing in the high attrition rate of BPO industry.
3. To find out the way outs to reduce the high attrition rate of BPO industry.

Research Design and Data Collection:

The target respondents for this study are BPO employees. About 120 employees were selected to respond the questionnaire and 94 valid responses were found at the end. To capture the responses a structured questionnaire was used. The responses were measured with the help of a 5 point likert scale. The analysis tools are mainly Weighted Mean Score.

Data Analysis and Interpretation:

About 10 BPO firms were selected for the study. Being it confidential it is not possible to disclose the name of those firms. The captured responses were tabulated and now being presented first in the form of Mean Score. On likert scale, out of 5 the values are given for each variable in the tables given ahead.

Table 3 Reasons to stay in the present job

Factors Affecting	Mean Score On a scale of '5'
Not finding a suitable job	4.21
Salary	4.02
Challenging Job Assignments	3.95
Career Opportunities	3.83
No time to look for new job	3.56
Interesting work	3.40
Flexibility in working hours	3.33
Don't have Eligibility to	3.02
find a New Job	
I really enjoy this Job	2.38

As per table 3, the most important factor is "Not finding a suitable Job" with mean score of 4.21 which shows that lots of employees do not look BPO industry as a long term career option. This factor is followed by "Salary and Challenging Job Assignments" respectively with a value of 4.02 and 3.95. People do not give a very low value to the variable "I Really Like this Job" which shows a comparatively low level of satisfaction in the job with BPO.

Table 4 Company Feedback of employees

Factors Affecting	Mean Score On a scale of '5'
My organisation seeks loyal employees	4.39
Overqualified applicants are rejected in organisation	4.33
I receive enough co-operation from my colleagues	4.20
Level of Leadership is very good in my organisation	3.48
Organisation's commitment towards it's employees	3.11
Employees are considered as Asset in my organisation	2.58
I look a good chance of growth in the present organisation	2.22
I get full credit of the work, If I do a better work	2.10

Table 5 presents the employees feedback for the level of their responses towards various aspects of job in their company. In the opinion of employees their organisation seeks loyal employees (Mean score 439) and rejects the resume of those who are overqualified (Mean Score 4.33). Of course to ensure the loyalty, but at the same time, the worst grade is given to the last factor viz. I get full credit of the work, if I do a better work (Mean Score 2.10) which shows that the organisations only think at the time when they recruit but not at the time when employees need appreciation of their work.

Table 5 The reasons of employee Attrition in BPO Industry:

Factors Affecting	Mean Score On a scale of '5'
Lack of Growth	4.58
Salary Limits	4.56
Low Status	4.44
Leadership Style	4.19
More time Consuming	4.00
Health Problems	3.82
Monotony in the work	3.74
Not Suitable job for long-term career	3.72

Table 5 presents a list of those factors which are responsible for employee dissatisfaction and attrition. All the points have a very strong mean value which is more than or equal to 3.72. This shows that employees are very significantly dissatisfied with the environment in the organisation and the same is the reason for their attrition.

Table 6 Employee retention strategies (way outs) in BPO industry

Factors Affecting	Mean Score On a scale of '5'
Better Leadership	4.50
Career and Succession Planning	4.11
Listen Employees More	4.01
Better salary	3.47
More incentives and	3.27
Credit for Better work	
Job Rotation	3.26
Employee counselling	3.04

Table 6 presents the various factors and their level of importance for employee retention. These factors become more important because they have been rated by employees themselves. The factors like "Better Leadership", "Career and Succession Planning" and "Listen Employees More" have got the utmost priority which a mean score of more than 4 in all cases. However all other factors such as "Better salary", "More incentives and Credit for Better work" and "Job Rotation and Employee counselling" also get the mean value more than 3, hence they also become very significant.

Suggestions and Recommendations

On the basis of above empirical analysis of employees the following suggestions and recommendations can be drawn from the study:

- BPO Industry in India is going very well in for the retention of employees they must make this industry as industry for the long term jobs for professionals.
- Good work environment should be given to the employees
- Job Rotation scheme must be there to prevent to the monotony in the work.
- Contract making should on the basis of career and succession planning of employees not as a very strict legal binding.
- Training and development should be a continuous process.
- Better pay, prompt rewards should be there
- Timely promotion should be given to the employees
- Timings should be flexible and transparency should be there in the system
- Exit interviews should be promoted and the database should be maintained in order to prevent the attrition in future.
- Proper feedback should be taken; motivational lectures and morale boost up exercises should be conducted for employees.

Conclusion

This is very clear that people are not enjoying very much the job in BPO industry. They only pass the time until they do not get a better job anywhere else. This concept is increasing the attrition rate in BPO industry. Firstly the BPO industry image should be made like an industry for long-term job. When people will leave other jobs and will come in the BPO industry. The fact is this that the job profile mainly depends on communication and not so conceptual work is done in this so this job becomes boring after some time. Further the salary is also limited for some time. As a conclusion it can be said the future of BPO is very good in India the attrition rate can be made well and good for the health of the industry by taking some important measures in this regard. The survey done in this project clearly defines that there are certain facts, which are very important to be consider.

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RELATIONSHIP BETWEEN WORKING CAPITAL MANAGEMENT AND PROFITABILITY: A STUDY OF KIRLOSKAR PNEUMATIC COMPANY LTD., PUNE.

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ABSTRACT

Working Capital Management is a very important facet of financial management as: Investment in current assets represents a substantial portion of total investment. The twin goals of profitability and liquidity often conflict since liquid assets give the lowest returns. Thus striking a balance between the two is important. Also, investment in current assets & the level of current liabilities have to be geared quickly to change sales.

The purpose of this study is to assess working capital adequacy and its impact on profitability; to investigate the relationship between profitability and liquidity of firm. The researchers try to investigate the impact of working Capital Management on Kirloskar Pneumatic Company Limited (KPCL) was established in 1958. It made an entry with manufacture of air compressor and pneumatic tools & soon diversified by including air conditioning & transmission equipments. The company being a manufacturing company, working capital management is very important to strike a balance between profitability and liquidity while managing the operating cycle. The researchers want to study the liquidity and the profitability of the company pertaining to Working Capital Management. The study based on the financial data obtained from the company in the form of the annual reports for the 5 financial years under consideration (2006-07 to 2010-11)

Key words- *Working Capital Management, profitability, liquidity, KPCL.*

INTRODUCTION

Working capital management is considered to be a very important element to analyze the organizations' performance while conducting day to day operations, by which balance can be maintained between liquidity and profitability. Maintaining liquidity on daily base operation to make sure it's running and meets its commitment is a crucial part required in managing working capital. It is a difficult task for mangers to make sure that the business function running in well-organized and advantageous manner. There are chances of inequality of current assets and current liability during this procedure Firm's growth and profitability will be affected if this occurs and firm manger wouldn't be able to manage it efficiently.

The goal of Working Capital Management is to manage the company's current assets & liabilities, so that a satisfactory level of working capital is maintained. If the company cannot maintain a satisfactory level of working capital, it is likely to become insolvent & may be forced into bankruptcy. To maintain the margin of safety current assets should be large enough to cover its current liabilities. A company can be well endowed with assets and profitability but, short of

liquidity if its assets cannot be readily converted into cash. Positive working capital is required to ensure that a company is able to continue its operations and that it has sufficient funds to satisfy both maturing short term debt and upcoming operational expenses.

Profitability is related to the goal of shareholders' wealth maximization, so investment in current assets should be made only if an acceptable return is obtained.

While liquidity is needed for a company to continue in business, a company may choose to hold more cash than is needed for operational or transaction needs, for example for precautionary or speculative reasons.

The twin goals of profitability and liquidity will often conflict since liquid assets give the lowest returns. Cash kept in a safe will not generate a return, for example, while a six-month bank deposit will earn interest in exchange for loss of access for the six-month period.

Because working capital management is so important, a company needs to formulate clear policies concerning the various components of working capital. Key policy areas relate to the level of investment in working capital for a given level of operations and the extent to which working capital is financed from short-term funds such as a bank overdraft.

Most businesses cannot finance the operating cycle- accounts payable with accounts receivable days + inventory days financing alone. Consequently, working capital finance is needed. This shortfall is typically covered by the net profits generated internally or by externally borrowed funds or by a combination of the two.

Kirloskar Pneumatic Company Limited (KPCL) was established in 1958. It made an entry with manufacture of air compressor and pneumatic tools & soon diversified by including air conditioning & transmission equipments. The company being a manufacturing company, working capital management is very important to strike a balance between profitability and liquidity while managing the operating cycle.

Literature Review

Dong (2010) reported that the firms' profitability and liquidity are affected by working capital management in his analysis. Pooled data are selected for carrying out the research for the era of 2006-2008 for assessing the companies listed in stock market of Vietnam. He focused on the variables that include profitability, conversion cycle and its related elements and the relationship that exists between them. From his research it was found that the relationships among these variables are strongly negative. This denote that decrease in the profitability occur due to increase in cash conversion cycle. It is also found that if the number of days of account receivable and inventories are diminished then the profitability will increase numbers of days of accounts receivable and inventories.

Saswata Chatterjee (2010) focused on the importance of the fixed and current assets in the successful running of any organization. It poses direct impacts on the profitability liquidity. There have been a phenomenon observed in the business that most of the companies increase the margin for the profits and losses because this act shrinks the size of working capital relative to sales. But if the companies want to increase or improve its liquidity, then it has to increase its working capital. In the response of this policy the organization has to lower down its sales and hence the profitability will be affected due to this action.

For this purpose 30 United Kingdom based companies were selected which were listed in theLondon Stock exchange. The data were taken of three years 2006-2008. It analyzed the impact of the working capital on the profitability. The

dimensions of working capital management included in this research which is quick ratios, current ratios C.C.C, average days of payment, Inventory turnover, and A.C.P (average collection period. on the net operating profitability of the UK companies. Terual and Martinez–Solano (2007) also provided the empirical relationship between both the variables. They chose the small and medium sized Spanish firms, a sample of about 8872 small to medium sized enterprises for 1996 to 2002. After the in depth view it was found out that the negative relationship between the profitability of SME's and the number of days account receivable and days of Inventory. But it did not provide the exact impact of no. of days account payable affect and SME's return on Assets.

Raheman and Nasr (2007) have selected a sample of 94 Pakistani firms listed on Karachi Stock Exchange for a period of 6 years from 1999-2004 to study the effect of different variables of working capital management on the net operating profitability. From result of study, they showed that there was a negative relationship between variables of working capital management including the average collection period, inventory turnover in days, average collection period, cash conversion cycle and profitability. Besides, they also indicated that size of the firm, measured by natural logarithm of sales, and profitability had a positive relationship.

Ganesan (2007) selected telecommunication equipment industry to study the effectiveness of working capital management. The sample included for his research paper included 443 annual financial statements of 349 telecommunication equipment companies covering the period 2001 to 2007. The statistical tests used included correlation, regression analyses and Analysis of variance (ANOVA). The results showed that days of the working capital negatively affects the profitability of these firms but in reality it does not affect the transportability of firms in telecommunication equipment industry.

Filbeck G. et al. (2005) investigated the data of 26 industries by taking the data of 970 companies during 1996 to 1999. They found out that firms are able to decrease financing cost and/or augment the funds obtainable for development by reduce the amount of funds attached to the current assets. They revealed that significant difference exist between industries in working capital measures across time. In addition, we determine that these measures for working capital vary extensively with in industry with the passage of time.

Scope of the Study:

The scope of the project was to study the liquidity and the profitability of the company pertaining to Working Capital Management. The study was done based on the financial data obtained from the company in the form of the annual reports for the 5 financial years under consideration (2006-07 to 2010-11)

Objectives of working capital management:

- To increase the profitability of a company
- To ensure that it has sufficient liquidity to meet short-term obligations as they fall due and so continue in business.

Research Design:

The study of working capital management at KPCL which majorly included the study of the profitability and liquidity of the company was done with the help of analysis of financial data.

The data was collected through the secondary sources like: Annual Reports of the company, Office manuals of the department, Magazines. The analysis conducted for the period 2006 to 2011.

Methods of Data Analysis:

The relevant data collected was compiled, tabulated, processed and analyzed. Different methods like Percentage analysis, and Tabular analysis and Ratio analysis were used for the purpose of data analysis and interpretation.

Limitations of the Study:

- Working capital management is a very vast subject covering many domains of current assets and liabilities management. It was not possible to cover all the aspects in detail, in the brief tenure of the project.
- Some of the limitations associated with ratio analysis are also applicable. E.g. Ratios show the position of a company only on a particular day and not the picture of the picture of the entire year.

Data Analysis and Interpretation:

Some important percentages and ratios of KPCL for Financial years:					
	2006-07	**2007-08**	**2008-09**	**2009-10**	**2010-11**
Percent rise (+) or fall (-) in Net Sales as compared to previous year	17%	13%	29%	-13%	9%
Total Cost of Inventory consumed/ Net Sales (%)	59%	58%	60%	57%	55%
Power and fuel Expenditure/ Net Sales (%)	2.6%	2.3%	1.7%	1.9%	2.1%
Direct Labour Expenditure/ Net Sales (%)	8.7%	10.2%	8.3%	10.5%	11.5%
Other Manufacturing Expenses/ Net Sales (%)	6.8%	7.2%	5.2%	5.2%	7.2%
Depreciation/ Net Sales (%)	1.6%	1.7%	1.7%	2.9%	4.2%
Cost of Goods Sold/ Net Sales (%)	73.4%	72.6%	72.6%	70.2%	71.2%
Selling, General and Administrative Expenses/ Sales (%)	17.5%	19.0%	16.1%	16.5%	17.0%
Cost of Sales/ Net Sales (%)	91.0%	91.6%	88.7%	86.7%	88.3%

Ratios :

	2006-07	2007-08	2008-09	2009-10	2010-11
Gross Profit Margin (%)	26.6%	27.4%	27.4%	29.8%	28.8%
Operating Profit Margin (%)	9.0%	8.4%	11.3%	13.3%	11.7%
Net Profit Margin (%)	12.1%	7.6%	8.0%	10.9%	8.9%
Return on Capital Employed (ROCE) (%)	35%	34%	39%	36%	32%
Inventory Conversion Period (Days)	69	85	90	115	89
Debtors Conversion Period (Based on Cost of Sales) (Days)	112	121	107	127	120
Total Debtors Conversion Period (Based on Sales) (Days)	102	111	95	110	106
Debtors Conversion Period-Domestic Sales (Days)	103	110	96	113	108
Debtors Conversion Period-Export Sales (Days)	82	123	82	42	51
Creditors Conversion Period (Days)	98	124	105	143	110
Gross Operating Cycle (Days)	181	206	197	242	209
Net Operating Cycle (Days)	83	82	92	99	99
Current Ratio	1.49	1.39	1.41	1.50	1.42
Quick Ratio	1.10	0.99	0.98	1.14	1.10
Working Capital Turnover Ratio (No. of times)	5.46	5.76	5.27	4.35	4.54
Debt-Equity Ratio	0.27	0.15	0.29	0.19	0.10

Finding & Conclusions

1. Sales:

   The sales have been increasing from 2006-07 to 2010-11, except in (2009-10).

2. Cost of sales:

   The cost of sales decreased from 91% (2006-07) to 86.7% (2009-10) and then increased to 88.3% (2010-11).

3. Profitability Ratios:

   Profitability increased till 2009-10. It then decreased in 2010-11. This was majorly due to the rise in cost of sales to net sales proportion.

- The operating profit margin increased from 8.4% (2007-08) to 13.3% (2009-10). It fell to 11.7% in 2010-11.
- The net profit margin rose from 7.6% (2007-08) to 10.9% (2009-10). It then fell to 8.9% in 2010-11.
- There was a continuous fall in the Return on

capital employed from 39% (2008-09) to 32% (2010-11). The ROCE for the year 2010-11 is the lowest of all 5 years under consideration. The fall indicates that the rate of increase in profit before interest is lower than the increase in the capital employed. The major reason for the fall is the high increase in all expenses thus increasing the cost of sales.

4. Operating Cycle Ratios:

- Inventory Conversion Period:

  It is seen to have increased from 69 days (2006-07) to 115 days (2009-10). It then fell considerably to 89 days (2010-11). This indicates better inventory management and control.

- Debtors Conversion Period:

  The debtors conversion period shows alternate increase and decrease. The overall trend however is of increase in the Debtors Conversion Period from 112 days (2006-07) to 127 days (2009-10). It then fell to 120 days in 2010-11. Thus the company seems to have recovered the cash faster from its debtors in 2010-11. However when the split of the debtors conversion period for domestic sales and exports is seen, it can be seen that the longer time taken is to a large extent contributed by the domestic debtors except 2007-08 when it is more for the exports. At times the domestic debtors took even double the time or even more to convert into cash.

- Gross Operating Cycle

  KPCL's Gross operating cycle period shows alternate increase and decrease. The overall trend however is of increase in the Gross Operating Cycle Period from 181 days (2006-07) to 242 days (2009-10). It then showed a drastic fall to 209 days which is because of the major decrease in inventory conversion period and also in debtors conversion period in 2010-11.

- Creditors conversion period:

  It shows fluctuations with an overall increase in the period from 98 days (2006-07) to 143 days (2009-10). It fell considerably to 110 days (2010-11). The reasons for decrease in the period in 2010-11 could be that the company was not given enough credit period by the suppliers because of earlier delay in payment indicated by the highest creditors conversion period of 143 days in 2009-10.

- Net Operating Cycle:

  The length of the net operating cycle has shown a consistent increase from 82 days (2007-08) to 99 days (2009-10 and 2010-11).

5. Liquidity Ratios:

- The working capital amount increased continuously from Rs. 6,528 lakh (2006-07) to Rs. 10,842 lakh (2010-11) which is in line with the increasing sales.

  The working capital turnover ratio of KPCL ranges between 4.4 (2009-10) and 5.8 (2007-08). The working capital turnover of KPCL is satisfactory.

- The current ratio and quick ratio of KPCL have throughout been above 1.33 and 1 respectively and thus indicate satisfactory level of liquidity throughout the period from 2006-07 to 2010-11.

- There was a drastic rise in current investments in 2010-11 by Rs. 3364 lakh. It appears that company is probably expecting some order in near future.

6. Leverage Ratios

- The debt-equity ratio of KPCL is too low.

SUGGESTIONS:

- The company should try to increase the volume of its exports provided it gives higher profitability. The debtors collection period for exports is lower which will help increase the liquidity to that extent.
- Marketing for exports should be done to a higher extent especially in countries where the company already has collaborations or offices set up.
- Attempts should be made to reduce the selling, general and administrative expenses by trying to get bulk or higher number of orders in a single trip thus reducing the marketing and selling expenses.
- The company should try to have a more efficient management and control over the inventory which will help in further reduction in the inventory holding days.
- Debtors though reduced from 2009-10 to 2010-11, there is still scope as it was still lower at 107 days in 2008-09. Measures should be taken to recover money from debtors at a faster rate, especially from the domestic debtors who majorly contribute to the longer debtor's conversion period.
- Attempts should be made to enjoy a credit period as long as possible, only till the point where it does not affect the price paid to be paid to the supplier and the image or credibility of the company.
- Further encouragement to a more disciplined system of working as facilitated by the newly adopted KAIZEN by KPCL will lead to cost cutting and will avoid wastage which will in turn lead to higher efficiency and effectiveness.
- The above mentioned attempts will further lead to better liquidity and improve the profitability as well.
- There was a drastic rise in current investments in 2010-11 by Rs. 3364 lakh. It appears that company is probably expecting some order in near future. However, if there is no such anticipation, the company could invest higher amount in long term investments which would fetch more returns to the company.
- If the company further requires capital to be raised, it should try to raise it by debt financing.

After studying KPCL's financial data (for financial years 2006-07 to 2010-11) and analyzing it, following points could be interpreted:

The profitability of KPCL showed an increasing trend till 2009-10 but decreased in 2010-11, the reason being a considerable rise in cost of sales to net sales proportion. The Return on Capital employed has shown a continuous decrease indicating a disproportionate rise in Profit before interest and tax compared to that in the capital employed.

The liquidity ratios of KPCL have been satisfactory. However, the length of the net operating cycle has consistently increased from 82 days to 99 days over the last 5 financial years.

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ASIAN EMERGING MARKETS: STRATEGIES TO MANAGE THE AFTERMATH OF GLOBAL CRISIS

Tushar Sen

ABSTRACT:

The current financial turmoil is confronting Asian emerging market economies (AEMEs) with two shocks: a "sudden stop" of capital inflows driven by global deleveraging, and a collapse in export demand associated with the global slump. A key ingredient will be greater official financing to expand the "policy space" available to AEMEs to pursue supportive macroeconomic policies. Another key ingredient will be policies to protect the poor and other vulnerable groups. This paper outlines policies to help solve the debt overhang and bring about recovery. An important first step is to ensure an adequate framework to facilitate rapid debt workouts. Debt restructuring mechanisms can provide greater scope for monetary easing by reducing the negative repercussions of exchange rate depreciation on unhedged balance sheets. Secondly, except where the loss of confidence in the currency precludes it, the basic thrust of monetary policy should be toward easing, given the evident global deflationary pressures and widening interest differentials with respect to advanced countries. Quantitative measures may also be appropriate in some cases. However, central banks need to remain mindful of the trade-off between the growth-enhancing effects of looser policy versus the negative impact of exchange rate depreciation on unhedged balance sheets. Thirdly, depending on the available fiscal space, expansionary fiscal policy should also be deployed to support economic activity. This calls for a variety of fiscal measures that could include some less conventional steps such as providing credit guarantees. Fourthly, it is critical that AEMEs have a credible exit strategy. Monetary policy should not be loosened too quickly, as a rapid reversal would damage credibility. This would help contain the costs of financing the short-term stimulus, and have an additional benefit of strengthening investor confidence and facilitating the resumption of capital inflows in the recovery phase.

Keywords: emerging markets, policy framework, developing countries, global crisis, emerging economies

I. INTRODUCTION AND OVERVIEW

The current financial turmoil is confronting Asian emerging market economies (AEMEs) with 2 shocks—a ? sudden stop?of capital inflows resulting from the global deleveraging process, a collapse in export

demand associated with the global recession—that in turn are leading to sharply tighter domestic credit conditions and slumping aggregate demand (Figure 1).. This paper discusses, in broad terms, the main policy options for AEMEs confronted by two shocks, recognizing that specific prescriptions must be tailored to individual country circumstances.

Given the global dimension of the crisis, country policies to attract financing are likely to be less effective: although some AEMEs were ripe for crisis, in many cases, money is leaving due to global rather than to country factors. As such, solutions need to involve a global response through liquidity provision and macroeconomic stimulus. A broad

range of countries have responded with massive macro policy easing and efforts to restore their financial sectors to health—and as these policies deliver results, global recession and deleveraging should subside, with favorable spillovers to AEMEs. In the meantime, global liquidity provision by the International Monetary Fund (IMF) and other international financial institutions (IFIs) is a lifeboat for some AEMEs that can reduce the severity of the global shock and allow countries to pursue supportive policies rather than measures destructive to national and international prosperity.

AEMEs entered the global slump with different initial conditions. Some were ripe for a homegrown crisis associated with the end of unsustainable credit booms or fiscal policies; others were just bystanders caught up in the storm (Appendix III). In the first group, unsustainable booms have left in their wake debt overhangs (high levels of debt that will likely require restructuring and possibly write-downs), especially unhedged foreign currency (foreign exchange)– denominated debt. Disincentives to engage in unhedged foreign exchange borrowing should be considered to avoid a repeat of this crisis in the future. But the priority now is to pursue policies that are appropriate to solve the debt overhang and bring about recovery. Key elements of an appropriate policy package include (i) greater official financing, which expands the ? policy space? available to AEMEs to pursue supportive macroeconomic policies (including helping to meet bank recapitalization costs associated with debt restructuring), while instilling confidence that should limit downward pressures on exchange rates and other asset prices; (ii) strengthening bankruptcy procedures to reduce inefficiencies inherent in debt workouts/restructurings in the wake of the crisis; (iii) easing monetary policy to boost activity while guarding against excessive exchange rate depreciation and (iv) pursuing expansionary fiscal policies without jeopardizing policy credibility and sustainability of the public finances.

Insolvencies. The financing and external demand shocks have resulted in significant downward pressures on emerging market currencies. Balance sheet effects and recessions are severely straining corporate and household sectors, and leading to the risk of widespread insolvencies. Therefore, a critical element of the policy response is to ensure an adequate legal/institutional framework to facilitate rapid debt workouts. This is especially important where the debt overhang is large and—if unaddressed—is likely to extend the duration of recessions in concerned countries long after the global slump abates. Debt

restructuring mechanisms need to be appropriate to country circumstances and avoid negative cross-border spillovers (including giving rise to chilling effects on a resumption of foreign capital to AEMEs). Such mechanisms can provide greater scope for monetary policy easing by reducing the negative repercussions of exchange rate depreciation on unhedged balance sheets. In principle, they also help free up fiscal space by limiting the duration of the downturn and the cumulative cost of restoring financial sectors to health (which grows as restructuring is delayed).

Monetary policy. As in advanced economies, the basic thrust of monetary policy in AEMEs should be toward easing given the evident global deflationary pressures. This provides more room for inflation aimers to absorb depreciations without compromising policy credibility, though for countries with exchange rate pegs, the scope for easing will depend on whether or not the peg is retained. But in easing monetary policy, central banks need to be mindful of the trade-off between the benefits of lower interest rates and a weaker exchange rate for economic activity and exports, and the negative impact of depreciation on unhedged balance sheets. How much to let the exchange rate depreciate depends on a number of factors—including initial overvaluation, the exchange rate regime, and balance sheet effects, as well as possible regional contagion and systemic implications. Lower policy interest rates, foreign exchange intervention, and, in some cases, quantitative measures can be used to achieve the appropriate degree of monetary easing and exchange rate stability (Figure 2).

Fiscal policy. Depending upon the available ? fiscal space?—the scope for financing a deficit without undue crowding out of private activity, sharp

increases in funding costs, or undermining debt sustainability—expansionary fiscal policy should also be deployed to support economic activity. In cases where there is a large debt overhang, part of the available fiscal space will be needed to help resolve that overhang and to pay the resulting financial recapitalization costs. Depending upon specific circumstances, it may be preferable to do this ex post (recapitalizing banks after they suffer losses), or proactively, for instance, converting foreign currency mortgages to domestic currency and compensating banks for losses (perhaps with a haircut). Although the empirical evidence is not conclusive, conventional fiscal multipliers may be smaller in emerging market countries and the impact of fiscal stimulus on activity is more uncertain. This calls for a variety of fiscal measures that could include some unconventional steps such as providing credit guarantees on domestic borrowing.

The remainder of this paper is organized as follows. Section II discusses initial conditions and constraints implied by the loss of external financing. Section III takes up the need to deal with insolvencies and debt overhangs. Section IV discusses monetary and fiscal policy options in light of these constraints. Section V concludes.

II. INITIAL CONDITIONS AND THE EXTERNAL FINANCING CONSTRAINT

In recent years, many emerging market countries have matured, with improved policies, stronger institutions, greater credibility, and, in a number of cases, substantial war chests of foreign exchange reserves. But progress has not been universal, with monetary and fiscal ? policy space,? and flow imbalances and stock vulnerabilities, varying widely across AEMEs (Figure 2). In particular, some countries (especially in Europe) had private credit booms— often fueled by capital inflows—that have left large debt overhangs and foreign currency exposures on domestic balance sheets, whereas others have reduced foreign exchange exposures on public (e.g., Latin America) or private (e.g., Asia) balance sheets.

Although these variations imply different impacts of the global crisis across AEMEs, nearly all such countries are having to contend—albeit to different degrees—with a loss of external financing that constrains their policy options (Figure 3). Particularly affected are countries with large current account deficits—many of which had asset price and credit booms. Although a slowdown to more sustainable levels was necessary, the abrupt correction implied by the sudden stop of capital inflows is putting severe downward pressure on the exchange rate and harming the real economy; even countries without large external deficits are having to adjust to the falling rollover rates on foreign credit lines.

Restoring normal capital flows will require foremost addressing financial sector problems in advanced economies. In the meantime, AEMEs have few options:

1. Exchange rate depreciation. A first response may be to let the exchange rate depreciate. Obviously, not all countries in the world can simultaneously depreciate. But given the collapse in capital flows to emerging market countries and the implied external adjustment, it is reasonable that AEMEs (particularly those that have suffered terms of trade losses, and leaving aside AEMEs with large current account surpluses) should, on average, see their currencies depreciate against those of advanced economies (Figure 3). Although this can help AEMEs cope with weaker global demand, it can also lead to adverse balance sheet effects in the presence of unhedged foreign currency liabilities (discussed in detail in Section IV.A).
2. Raising interest rates. A standard prescription in capital account crises is for the monetary authorities to raise interest rates and tighten credit conditions, which increases the cost of speculative attacks, encourages capital inflows by rewarding investors, and restores confidence in the value of the currency (Figure 2). But in this global crisis, net capital outflows mainly reflect creditors‘ need to deleverage—not a loss of confidence in the EME currency. As such, raising interest rates would tend to have less traction than in a more conventional sudden stop episode.

3. Official financing. Greater official resources may be one of the few avenues available to AEMEs to ease the external financing constraint. The IMF has recently revamped its lending toolkit for emerging market countries, doubling its access limits and introducing a Flexible Credit Line (FCL), which allows strong performing countries to access IMF resources based on rigorous ex ante qualification criteria. This instrument has no preset cap on access, and the resources can be drawn up front and can be used on a precautionary or drawing basis. Countries that do not qualify for the FCL can benefit from modifications in the modalities for phasing of Stand-By Arrangements (SBAs) to allow for more front-loaded disbursements. Advanced economies can also take steps to facilitate their banks' continued lending to AEMEs, including through moral suasion and avoiding measures that could be construed as ? financial protectionism.? These instruments should help boost investor confidence in AEMEs bumping up against an external financing constraint, though it is unlikely that they can fully substitute for an absence of external private financing (driven by the need and desire to deleverage by mature market financial institutions), given the scale of global flows.

4. Controls on capital outflows: A final option may be to impose capital controls. But regardless of possible merits of capital controls in typical capital account crises (where residents and nonresidents have lost confidence in the currency) such measures would appear to be much less appropriate in a global deleveraging scenario where most AEMEs are facing a slowdown of capital inflows rather than investors seeking to flee the currency (Figure 3). Controls on outflows would at best de facto ? freeze?credit lines at their current levels while almost surely leading to a collapse of fresh inflows. For AEMEs that are in the midst of a full-blown crisis, where the sovereign or private borrowers cannot meet or roll over external obligations, a standstill on payments could be declared.

III. INSOLVENCIES, DEBT OVERHANGS, AND WORKOUTS

A second constraint on macroeconomic policy options in AEMEs comes from the need to deal with private (corporate, household, and financial) sector insolvencies and related debt workouts. These are obviously more pressing in countries that experienced credit booms and asset price bubbles, but nearly all emerging market countries will need to deal with rising insolvencies to some extent in the wake of the global crisis.

Insolvencies may reflect negative equity arising from asset price (e.g., house price) declines, and are likely to be particularly prevalent when borrowing is denominated in foreign currency, because depreciating currencies will exacerbate the negative equity problem as well as having a direct and immediate effect on debt service. Bankruptcies might arise from (i) illiquidity in domestic currency, (ii) illiquidity in foreign currency, (iii) general increases in bad loans over the economic downturn, and (iv) the balance sheet effect of a large depreciation in the presence of foreign exchange exposure. Although it is not always easy to distinguish between illiquidity and insolvency at an early stage, or to identify a priori which loans are bad, it should be possible to gauge the broad impact of balance sheet effects arising from currency depreciation by distinguishing between sectors that are hedged (e.g., exporters) and those that are not (e.g., banks or households).

Depending on country circumstances, there are four elements to an effective approach:

1. Provision of domestic currency liquidity. A first step is to ensure there is sufficient domestic currency liquidity (within the constraints on expansionary monetary policy discussed below) in order to ensure that liquidity problems do not evolve into solvency concerns. Although lower policy interest rates can help, in an environment of heightened uncertainty and risk aversion, banks may be reluctant to lend, necessitating more direct quantitative measures by the central bank (as discussed in detail in Section IV.A).

2. Provision of foreign exchange liquidity. In

some cases, particularly where exchange rate depreciation has negative repercussions for domestic balance sheets, insolvencies can be avoided by the provision of foreign currency liquidity. For example, if the exchange rate is depreciating sharply, and banks have foreign credit lines that are not being renewed, the central bank could use its foreign exchange reserves to extend foreign exchange loans to banks, which in turn could maintain their exposure to the domestic corporate sector. If borrowers have net foreign exchange exposure, their balance sheets would still deteriorate on a mark-to-market basis because the domestic currency value of their liabilities would increase. In the case of banks, this may require forbearance on the part of regulators, which would be appropriate if the exchange rate depreciation represents overshooting that is expected to reverse over the medium term. Such liquidity provision helps avert insolvencies by giving the borrower more time to adjust to tighter credit constraints. Providing liquidity in foreign currency can also assist borrowers whose balance sheets are exposed to rapid exchange rate depreciation to the extent that (at least part of) the depreciation is temporary (which is certainly plausible, given the possible overshooting of the exchange rate). On the other hand, if the exchange rate depreciates further, the continued foreign exchange exposure will worsen balance sheets. If there is significant uncertainty about whether the depreciation will be persistent (as opposed to a temporary overshooting), then outright foreign exchange sales supported by domestic liquidity provision may be preferable.

3. Institutional and legal framework. A severe and prolonged economic downturn will likely result in a sharp increase in corporate bankruptcies. Efficient debt workout mechanisms help preserve firms that are worth more as a going concern than if sold piecemeal. But bankruptcy proceedings are generally inefficient in emerging market countries even in the best of times, and the current crisis is set to make the situation worse, potentially overwhelming judicial systems in countries with widespread insolvencies. Legal reforms could enhance the efficiency of bankruptcy proceedings, but in practice they are extremely difficult and time-consuming to implement. Regulatory measures that can facilitate creditor coordination, or Pareto improving debt write-downs, should be considered.

4. Government support for debt restructuring. Despite the provision of liquidity, bank losses are likely to mount due to the economic slump and the balance sheet effects of currency depreciation on unhedged borrowers (i.e., those that are insolvent once the exchange rate has settled at its new "equilibrium" level). Rather than letting losses accumulate on bank balance sheets (in the hope that banks will be able to absorb the losses later) the government can take a more proactive approach, which lessens the risk of a crisis if depositors lose confidence in the banking system, and could speed up recovery of the normal credit process.

   a) Where recapitalization is required, and additional capital from shareholders is not available, certain principles need to be followed—including ensuring that existing shareholders bear the first burden and that only banks with viable business models are salvaged. Recapitalization of domestic subsidiaries of foreign parent banks raises tricky issues of coordination and burden sharing between the parent bank and host and home country governments; in such cases, regional, cross-border cooperation is key. As part of recapitalization programs or otherwise, in past crises asset management companies (AMCs) have often proven useful for cleansing bank balance sheets while maximizing recovery values by holding assets to maturity.

   b) Other more proactive approaches could include the conversion, with the consent of borrowers and creditors, of selected foreign currency banking system assets into local currency, with part of the losses absorbed

by the government. Wholesale conversion of bank foreign currency assets and liabilities into local currency ("pesification") would not be appropriate because it would likely prompt bank runs and capital flight and further destabilize the exchange rate. Forced pesification could also be subject to lengthy and complex legal challenges. Although the country as a whole would still face the exchange rate risk, the redistribution of that risk toward the government could benefit the economy by

preventing costly defaults and spillover effects. In its basic form, the government would negotiate with banks to swap their foreign currency loan portfolio for government paper (restructuring bonds) denominated in foreign currency. Foreign exchange-denominated restructuring bonds have been used in past crises, for example, in Bulgaria (1994, 1997, 1999), Korea (1998), Mexico (1995–96), Poland (1991), and Uruguay (1982–84), whereas foreign currency– indexed restructuring bonds have been used in Indonesia (1998–2000) and Nicaragua (2000–01). Because banks would otherwise face a wave of costly foreclosures, they would presumably be willing to absorb some of the cost of marking down the foreign currency value of their assets. However, their loss would be clearly delineated and limited up front, with banks accepting a haircut and the government absorbing the rest of the loss. Appendix I describes some options for the design of such a mechanism.

Though there are no easy answers, the external financing constraint and debt overhangs need to be addressed squarely because they define the contours of feasible monetary and fiscal policies, which are discussed in the following section.

IV. MACROECONOMIC POLICIES

Advanced economies have responded to the crisis through unprecedented monetary and fiscal easing. AEMEs that are in the midst of a ? homegrown? capital account crisis may have to orient their policies toward restoring confidence in the currency, with little scope for easing in either dimension without exacerbating capital outflows. But these countries aside, given the evident global deflationary pressures, AEMEs with credible inflation targeting frameworks should have considerable scope for monetary policy easing without compromising their inflation outlooks. Of course, for countries with exchange rate pegs, the scope for easing will depend on whether the peg is retained or not. Similarly, the collapsing external demand and weakening domestic economic activity would, in general, call for fiscal easing to support demand, provided debt sustainability is not a concern and financing is available. Given a targeted level of aggregate demand/inflation, a more expansionary monetary policy can compensate for a less expansionary fiscal policy—though both may be relatively ineffective if domestic credit markets are frozen. Substituting for monetary easing by fiscal expansion can be constrained by debt sustainability concerns, because both relatively higher interest rates and fiscal spending will worsen the debt dynamics. Overall, there is no one-size-fits-all prescription, and the appropriate policy mix depends on the particular circumstances in each country, including a number of trade-offs described below in detail.

A. Monetary Policy

In contrast to typical capital account crises, where investors have lost confidence in the currency, pullbacks from most AEMEs in present circumstances reflect more on the impact of capital pressures in countries at the epicenter of the crisis. As such, there is less risk that monetary policy easing will lead to a further loss of confidence, capital outflows, and a collapse of the exchange rate—the elasticity of capital flows to policy interest rates is likely lower than usual. The low elasticity of capital flows to interest rates in the global deleveraging crisis seems plausible on a priori grounds, though it is still too early to tell whether it holds empirically in the current crisis. The preliminary experience suggests that capital outflows (and depreciations) from AEMEs may have been mainly driven either by

the depth and liquidity of markets (with investors pulling back from wherever they can) or by concerns about external or fiscal sustainability. The low elasticity also implies, however, that if there is a need to stem capital outflows by raising interest rates—for example, to defend a peg in countries in the midst of crisis—then correspondingly larger increases in interest rates would be required. In countries where there is scope for easing monetary policy, central banks will still need to be mindful of the trade-off between the benefits of lower interest rates and a weaker currency for boosting activity and exports against the negative impact of currency depreciation on unhedged balance sheets. Even for countries that do not actively target their exchange rate, how much to allow the currency to depreciate will be a key issue.

How much to let the exchange rate depreciate?

Given collapsing capital flows and the required external adjustment, AEMEs with floating exchange rates facing large or growing external deficits should in general allow their currencies to depreciate against those of advanced economies. Whether and how much to let the exchange rate depreciate in any individual country will depend on a number of factors, including the extent of initial overvaluation, balance sheet mismatches, and the exchange rate regime (Figure 3).

The contractionary effects of depreciation depend on which sectoral balance sheets in the economy have foreign currency exposure, and the ability of the sectors to absorb the resulting losses. While many AEMEs in Asia have reduced foreign exchange exposures, especially on public sector balance sheets, in Europe there has been significant foreign exchange borrowing by households and other borrowers that lack natural hedges. Stress tests can in principle help determine the relative impact of lower interest rates and exchange rate depreciation on the economy—though, in practice, standard balance sheet analysis can identify only large exposures. In particular, the impact on the economy depends on the contribution of the sector in question to aggregate demand, and its ability to withstand a given shock. As discussed previously, there are several policy options to mitigate the impact of the exchange rate depreciation on unhedged balance sheets, which could tip the balance toward allowing greater depreciation.

Countries with de jure pegged exchange rate regimes face a fundamental decision on whether to abandon the peg or (try to) defend it:

1. Balance sheet effects are likely to be more disruptive than under a floating regime because the exchange rate movement is more unexpected—debtors would have borrowed in foreign exchange on the assumption that the exchange rate will be constant; in some countries, foreign exchange exposure against the anchor currency does not count against banks‘ open foreign exchange limits, and with underdeveloped foreign exchange markets, the domestic banks and corporations may be ill-equipped to deal with floating exchange rates.
2. However, relative to partners with more flexible exchange rate regimes, the country will have likely lost competitiveness—on top of any pre-crisis overvaluation. This creates the prospect that the recession will extend well beyond the period of global slump, given the difficulties of addressing overvaluation without recourse to a change in the nominal exchange rate.
3. Regional contagion and the country‘s long-term goals are further considerations. For instance, if the country has a clear exit strategy from the peg (e.g., joining a monetary union), there is a stronger case for exiting to the permanent regime as soon as possible (at the existing parity, if broadly aligned, otherwise at a depreciated level). A coordinated regional policy response could be enormously helpful in achieving a smooth and expedited transition to the permanent exchange rate regime.

Which instruments to use?

The central bank has several instruments for achieving the appropriate degree of monetary easing, with corresponding effects on economic activity and the exchange rate.

Policy interest rates

As argued above, most emerging market countries (except those in the midst of a full-blown crisis and

that need to restore confidence in their currency) have scope for lowering policy interest rates to stimulate the economy. Even keeping interest rate differentials constant, policy easing in mature markets gives considerable scope to lower interest rates in AEMEs. Obviously, for countries defending a fixed exchange rate, interest rate policy will be subordinate to the need to maintain the peg.

Quantitative measures

Lowering the policy interest rate may have a limited effect on credit markets if the standard monetary policy transmission mechanisms are impaired (for example, if the policy interest rate approaches the zero nominal bound, or if greater bank liquidity fails to translate into additional lending). One risk with lowering policy interest rates when there is not a corresponding increase in bank lending is that the excess bank liquidity can facilitate capital outflows (Figure 2). Structural impediments to monetary transmission, such as excessive reserve requirements, should be reduced with prudence. If credit markets remain unresponsive to lower interest rates, or the central bank needs to engage in lender-of-last resort (LOLR) operations in a systemic banking crisis, it could resort to quantitative measures:

1. Increasing the range of accepted collateral: The central bank can extend liquidity against collateral assets that would not be considered during normal times. This reduces liquidity pressures but would leave the credit risk with the banks and may not lead to more lending.

2. Credit easing (CE): The central bank purchases (and sells) specific assets with a view to decrease their yields. CE—which may or may not be associated with other quantitative measures—is particularly useful if the credit market is segmented and targeted assets' yields are excessively high. For example, if high interbank interest rates are driven by banks' reluctance to lend to each other, the central bank could lower rates by acting as the counterparty for interbank loans. In this example, the central bank's balance sheet would not expand in aggregate, which would have a smaller impact on the exchange rate.

3. Quantitative easing (QE): The central bank expands its balance sheet by purchasing assets such as longer maturity government bonds. QE seems less appropriate for AEMEs, where deflationary expectations are unlikely to be present (and even in advanced countries, evidence on its effectiveness is limited). Therefore, except in extreme situations (e.g., the policy rate is already set to zero), QE should only be attempted by countries with a history of low inflation and macroeconomic stability, with central bank independence and credibility. There may be tensions between the need for QE for LOLR operations and defending a pegged exchange rate regime. How that tension should be resolved depends on the particular circumstances (e.g., the costs of a systemic banking crisis vis-à-vis abandoning the peg). In addition, central banks in some AEMEs are legally barred from purchasing government securities. These rules have often helped to guarantee central bank independence, and central banks in these countries seeking to implement QE will therefore need to do so via the purchase of other assets.

Foreign exchange intervention

Just as lowering policy interest rates may be tantamount to ? pushing on a string? as far as restoring credit growth is concerned, stabilizing the exchange rate may be possible only through direct sales of central bank reserves in the foreign exchange market (Calvo, 2006). If the central bank sells foreign exchange in the market while lowering interest rates, this is equivalent to sterilized intervention, which is a form of CE. Empirical evidence for major currencies suggests little efficacy of sterilized intervention in determining the exchange rate. For emerging market countries, however, the market is much smaller, and direct central bank intervention may have a larger impact, especially when the lower interest rates have less effect on the exchange rate because capital flows are being driven by global deleveraging rather than by a loss of confidence in the currency. Many AEMEs have built up war chests of reserves in recent years—and now is clearly the time to use them. But with enormous uncertainty about how long the global slump and dislocation of cross-border lending will last, there remains the question of how much of the reserves to use and how quickly.

Countries with pegged exchange rate regimes that decide to maintain the parity will, of course, have to use reserves for foreign exchange intervention, as necessary. For others, unless reserves appear to be ample even under relatively adverse scenarios regarding the resumption of financing, an effective risk management strategy requires the more limited use of reserves to achieve specific objectives. Policies should therefore include intervention to offset disorderly conditions, counter overshooting of the exchange rate, and provide foreign exchange liquidity to banks (which may otherwise be forced to default), while allowing some depreciation of the exchange rate to bring demand for, and availability of, foreign exchange into line with each other. As evidenced in the previous capital account crises and more recently in Russia, foreign exchange intervention aimed at more than offsetting disorderly conditions or countering overshooting of the exchange rate runs the significant risk of wasting scarce reserves with little effect on the exchange rate beyond the very short run. There are various possible mechanisms for extending foreign exchange liquidity to banks, including collateralized loans or currency swaps. This liquidity can also be used to target particular market segments that are crucial for restoring external sustainability (for example, the Brazilian central bank used its reserves during the 2002 crisis to extend trade credit to exporters through commercial banks). In general, the central bank should auction foreign exchange credit to banks, rather than engage in direct lending to the nonfinancial sector, which would entail greater commercial risk and raise concerns about governance. Alternatively, the central bank could use its reserves to guarantee foreign credit lines, provided credibility can be ensured by a sufficient amount of reserves and public debt sustainability. Although less effective than lending if the capital flows are drying up because of global factors, guarantees allow the central bank to conserve on the use of its foreign assets. If reserves are on-lent to resident borrowers, they cease to be reserves and instead become foreign currency assets; if reserves are used to guarantee foreign loans, they remain as reserves but

there is a contingent short-term drain on the central bank's foreign assets.

The central bank may also need to keep reserves in case of a systemic banking crisis. In dollarized banking systems, it would need foreign exchange reserves to stem runs on foreign currency deposits. Even if such deposits are limited, the expansion of domestic currency liquidity as the central bank acts as LOLR in a systemic banking crisis may become difficult to sterilize—resulting in inflation and a collapse of the currency. For example, during Indonesia's banking crisis in late 1997, the expansion of domestic liquidity could not be sterilized, contributing to the collapse of the rupiah. In these circumstances, foreign exchange reserves could be important for mopping up liquidity and restoring confidence.

B. Fiscal Policy

Most AEMEs face far stricter constraints on their fiscal space (i.e., reduced scope for financing a deficit without substantially increased borrowing costs), which limits them to pursuing a smaller (if any) fiscal expansion, while running the risk that adverse developments in capital markets may force them to reverse that stance.

Much of the spending and revenue policy advice for advanced economies remains relevant for AEMEs, once scaled down for their smaller fiscal space. For example, stabilizing the financial sector remains a top priority. Investment expenditures and transfers targeting the unemployed or poorer households (which have a higher propensity to spend) are effective in both groups of countries, whereas subsidies to specific industries and hard-to-reverse expenditures, such as increases in the public sector wage bill or the introduction of new entitlement programs, are not recommended.

Many AEMEs face multiple constraints on using fiscal policy to stimulate demand. As discussed in Section III, countries where there have been unsustainable asset booms and there is now a large debt overhang will likely have to devote fiscal resources to debt/financial sector restructuring, leaving correspondingly less space for fiscal expansion to support demand. Similarly, where bank soundness is in doubt, maintaining sufficient fiscal space to make deposit guarantees credible is of paramount importance. Even countries without debt overhang problems that come into the crisis with

excessive fiscal deficits or public debt—or that have current account deficits that can no longer be financed—have little room for maneuver (Figure 2). Likewise, loss of revenues—particularly commodity-related or import-related indirect taxes—may also constrain fiscal space. More generally, given weaker budgetary processes, some AEMEs have less scope than advanced countries for fiscal expansion without undermining confidence in debt sustainability. Indeed, in the past, fiscal policy in emerging market countries has typically been pro-cyclical because EME business cycles tend to be driven by capital flows, and when inflows fall sharply, financing an expansionary fiscal stance becomes impossible.

Experience from past EME capital account crises suggests fiscal consolidation was critical in restoring confidence in the presence of debt sustainability problems. But in episodes where debt sustainability was not a major issue (notably the East Asian crisis), fiscal adjustment did not seem to boost confidence. However, matters become more complicated in the presence of prospective fiscal costs from a banking crisis (unfortunately, many AEMEs currently fall into this gray category). But even then, a well-articulated and credible medium-term fiscal framework can be more beneficial than a short-term fiscal tightening. Countries that do have fiscal space face two questions. Would such expansion be effective in stimulating output (beyond the direct impact of higher government expenditure on aggregate demand)? And how best can the available fiscal space be used?

Effectiveness of conventional fiscal policy

Theory suggests that an expansionary fiscal stance—an increase in government spending or a reduction in taxes—is likely to be more effective in stimulating aggregate demand if the economy is relatively closed to trade flows, uses monetary policy to prevent or limit the appreciation of the currency, has substantial spare capacity, has a high proportion of credit-constrained households or firms, and has a sustainable public debt position. Along most dimensions, conditions in AEMEs are less conducive to fiscal policy effectiveness. One exception is the share of credit-constrained households and firms, which is likely to be greater in AEMEs than in advanced economies. On the other hand, depending upon the income distribution, the proportion of aggregate consumption by credit-constrained consumers may not be much larger. The other factors listed generally point to fiscal policy being less effective in AEMEs. Perhaps the most critical is debt sustainability, where AEMEs tend to be under particular investor scrutiny. When there are doubts about the sustainability of the public finances, fiscal multipliers will be smaller and may even be negative because the fiscal expansion leads to an increase in risk premiums. A final consideration not mentioned in the text is that AEMEs have greater need for public infrastructure than advanced economies, making for a more favorable impact on potential growth, provided the financing is available.

Using available fiscal space

Mitigating fiscal sustainability risks

For many emerging economies, rebuilding fiscal buffers to deal with a potential reversal of the current benign conditions is a priority. Many low-income economies need to continue improving their fiscal positions while financing growth-enhancing initiatives in a sustainable manner. Even though headline balances in emerging economies continue to improve, several considerations suggest that many need to adopt a more cautious fiscal policy. First, favorable tailwinds boosting revenues and containing spending

may be short-lived. Second, fiscal buffers were eroded by the crisis and should be rebuilt to protect against sudden reversals in capital inflows. Third, overheating concerns are increasing. In countries where higher commodity prices are raising outlays on food and energy subsidies, better-targeted measures to protect the poor are needed.

For low-income economies, a key policy priority is to finance growth-enhancing initiatives without jeopardizing fiscal sustainability. The improvement in overall balances in low-income economies is welcome and will help rebuild fiscal buffers.

Ideally, revenue increases would be achieved by widening tax bases and removing distortions, rather than by raising tax rates. In many countries, the elimination of tax expenditures can contribute to this objective. The history of failed consolidation attempts also points to the importance of strong fiscal institutions. Good institutions—accurate and timely

monitoring of fiscal outturns, coordination across levels of government, and fiscal rules—can play a critical role in preventing spending overruns or drawing

attention to them in time for offsetting measures to be introduced.

In emerging economies, the main challenge will be to improve health safety nets while preserving long-term fiscal sustainability, as health indicators are substantially lower than in advanced countries. By contrast, pension spending pressures look more manageable, thanks to reforms already enacted.

For advanced and emerging economies facing funding pressures and high debt levels, public debt management needs to be strengthened further. Efforts to lengthen maturities and smooth redemption profiles need to proceed, and strategies need to be developed that consider a diversified investor base, with a view to mitigating rollover risks.

Finally, building public support for large adjustment efforts will be key. The analysis of past consolidation attempts reveals that public support, rather than the presence of a strong legislative majority, was a major determinant of successful fiscal adjustments. Thus, a priority going forward should be to better explain to the public the rationale for and scale of the needed fiscal measures. Just as critically, it will be essential to ensure that the burdens of adjustment, as well as the benefits of the recovery, are distributed equitably

across society. In this context, ensuring adequate social safety nets to protect the most vulnerable is of the utmost importance.

Automatic stabilizers

Automatic changes in expenditure or tax revenue that are driven by the business cycle are more timely, better targeted (for example, recipients of unemployment benefits are more likely to spend than save),

and more credibly reversed (reducing concerns about debt sustainability) than discretionary changes in policy. Therefore, as a first response, the authorities should allow automatic stabilizers to operate fully. This might involve overriding some existing fiscal rules, for instance by providing central government funding to local governments whose programs are hindered by balanced budget rules (or constrained by financing difficulties). However, automatic stabilizers tend to be relatively small in AEMEs (reflecting a smaller public sector and less extensive social transfers, as well as less progressive income taxes), so that a discretionary policy response—where feasible—will likely be necessary.

Discretionary measures

Discretionary increases in spending or tax cuts should be targeted to achieve maximum impact. For example, protecting the poor and other vulnerable groups would not only have a stimulative impact (as they have a high marginal propensity to consume), but would also provide a social safety net. Although income tax cuts are likely to be less effective in AEMEs, because the tax base tends to be narrow—often consisting largely of the wealthy or middle classes—and tax cuts are therefore unlikely to be spent, cuts to payroll and consumption taxes could have a greater impact on the poor and thus be more effective. Explicitly temporary reductions in consumption tax rates may be more effective in the short run as they provide incentives to bring forward consumption to the current period. Large consumption tax cuts targeted on big-ticket items may be more effective than small cuts on a wide range of goods, by achieving greater salience or visibility.

Increasing government capital expenditure may be easier to achieve in the short term, assuming that ? shovel-ready? projects exist and there is institutional capacity within the public sector to rapidly scale up the capital budget. Given the likelihood of a prolonged downturn, there is a greater scope for relying on infrastructure investment despite implementation lags. Moreover, given larger infrastructural needs in emerging market economies, the impact on potential growth could be larger than in advanced economies. Because all government spending is spent, whereas some tax cuts are saved, expenditure measures ought to have a greater impact on aggregate demand. However, increases to recurrent expenditure are risky, as they are hard to reverse once the need for additional stimulus has passed and could therefore have negative implications for debt sustainability that

more than offset any short-term stimulative effect.

Government guarantees

Government guarantees on (domestic) bank lending could be an effective means of maintaining existing levels of private sector demand under certain circumstances as illustrated in Appendix II. This measure might be preferable to tax cuts or expenditure increases where domestic credit is a key driver of economic activity, not least because functioning credit markets may be a precondition for the success of

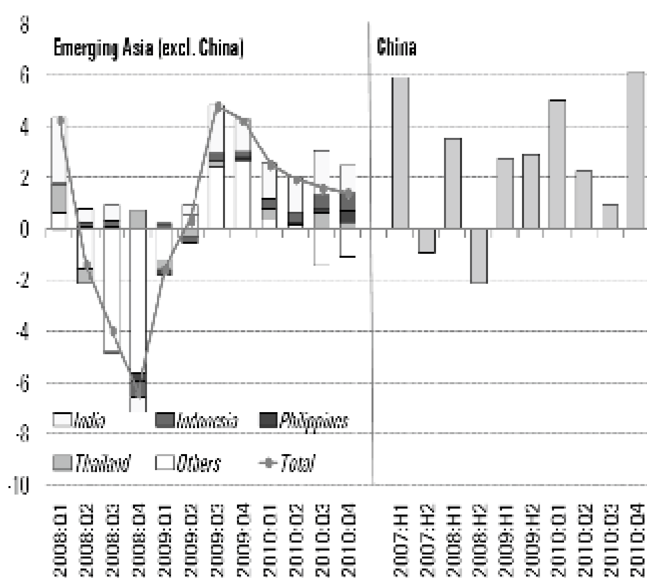
conventional fiscal policy interventions. If the government would not expect to be ? on the hook? for the full amount guaranteed (because only a fraction would be likely to default), then each dollar allocated to the guarantee scheme would have a multiplicative impact. However, the contingent liability could balloon in value if conditions were to deteriorate rapidly, perhaps undermining the ability of the government to undertake other necessary fiscal measures. To reduce such risks and protect the government's balance sheet, government guarantees could in practice be provided only for high-quality assets of banks and jointly with government support for recapitalization. There should also be transparency about the full extent of the government's contingent liabilities. Although guarantee schemes already exist in many advanced and some emerging market countries (e.g., for small businesses), any significant expansion would require careful design to minimize moral hazard and adverse selection problems.

V. CONCLUSIONS

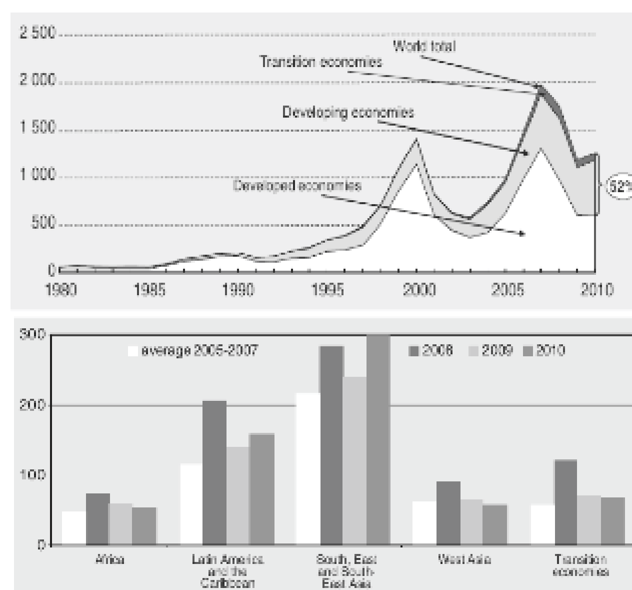
The current financial turmoil is confronting Asian emerging market economies with two shocks: a ? sudden stop? of capital inflows resulting from the global deleveraging process, and a collapse in export demand associated with the global slump. The deleveraging process has had particularly negative repercussions for countries that had foreign currency credit booms and now face large debt overhangs. This paper has attempted to outline measures to ameliorate the debt overhang and macroeconomic policies to bring about recovery. Countries' individual circumstances vary, and this paper has therefore highlighted a diverse range of policy options, including policies to address bankruptcies and debt restructuring, conventional and unconventional monetary and exchange rate policies, and fiscal policy options that respect the limited fiscal space that AEMEs often face. One conclusion that bears repeating is the crucial importance of putting in place a credible exit strategy. Only with such a strategy can policies be sufficiently bold to restore confidence and help stem the slide in activity in the short run without jeopardizing long-term sustainability or sacrificing AEMEs' hard-won gains in policy credibility.

Figure 1: Shock to asian emerging market economies

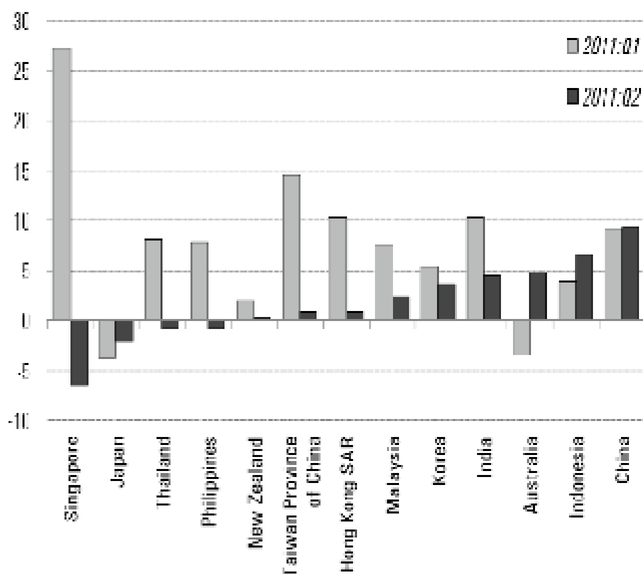
Emerging Asia: Net Capital Inflows *(In percent of GDP)*



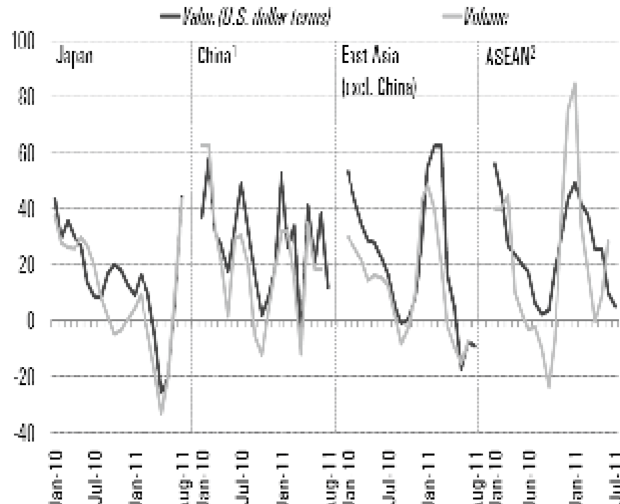
Emerging Asia: FDI Inflows *(In Billions of Dollars)*



Selected Asia: Real GDP at Market Prices *(Q0Q percent change; SAAR)*



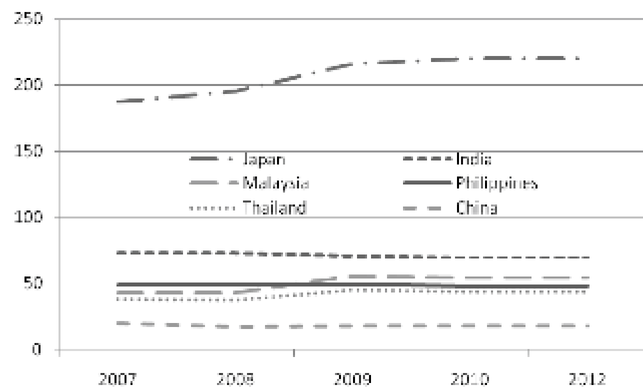
Selected Asia: Exports of Goods *(3 month moving average SAAR)*



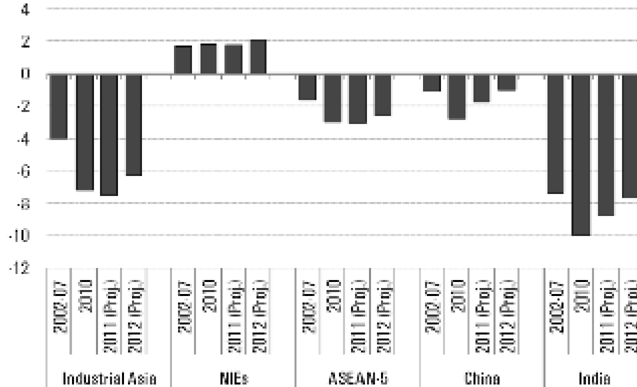
Source: CEIC Dat Company Ltd., Haver Analytics, IMF WEO Reports, UNCTAD database

Figure 2: Asian emerging market economies : initial conditions

Asia: Debt to GDP Ratio *(percent)*

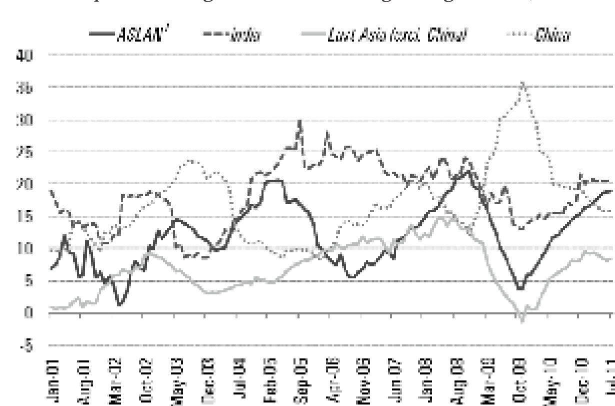


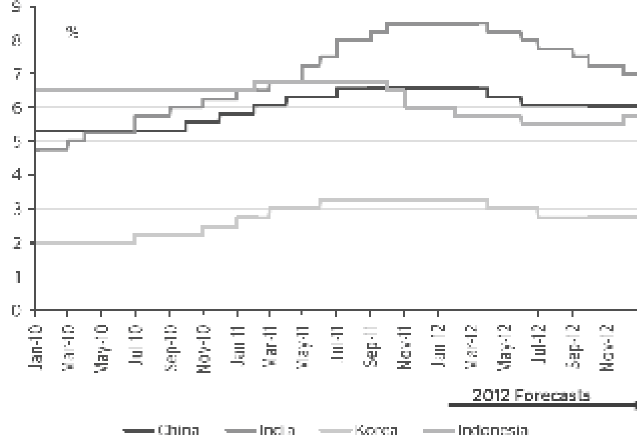
Asia: Fiscal Balances *(In percent of GDP)*



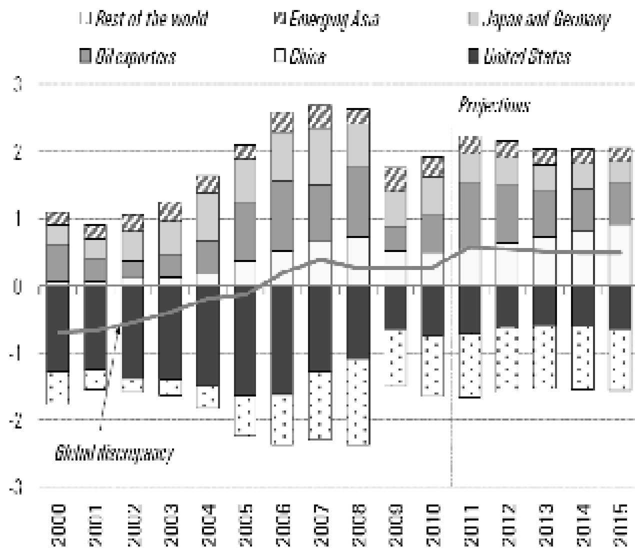
Selected Asia: Credit to Private Sector

(3-month percent change of 3-month moving average; SAAR)

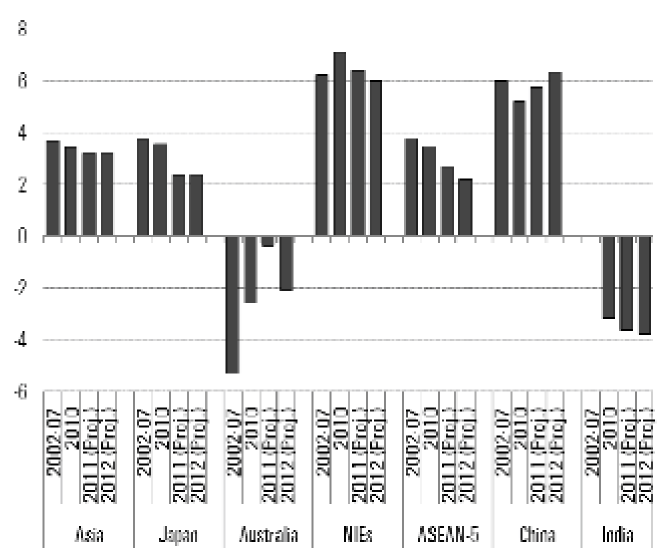




Global Current Account Balances *(In percent of world GDP)*



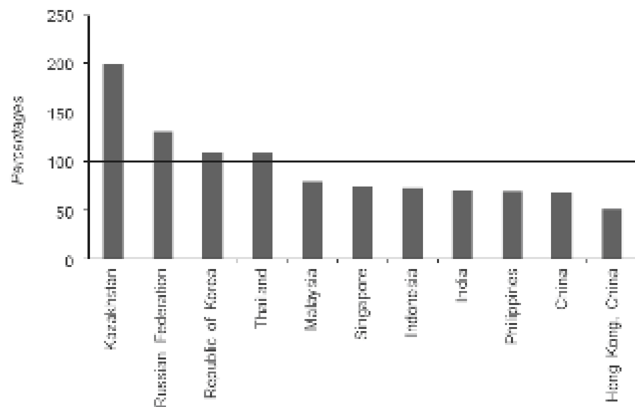
Asia: Current Account Balances (*In percent of GDP)*



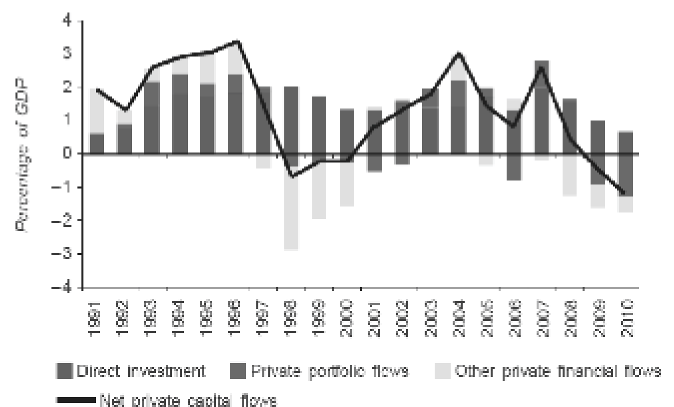
Source: IMF WEO Database, CEIC Data Company, Haver Analytics, tradingeconomics.com

Figure 3: Asian emerging market economies, major data points

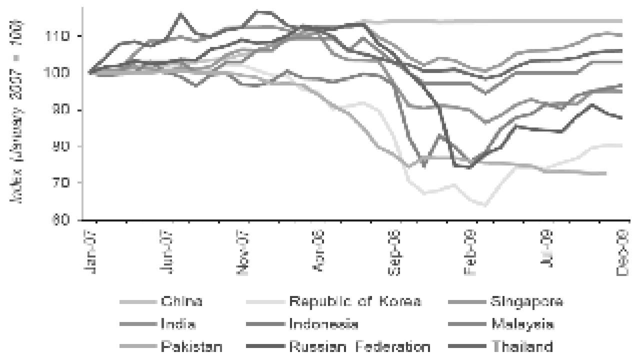
Loan-to-deposit ratios in major Asian developing economies



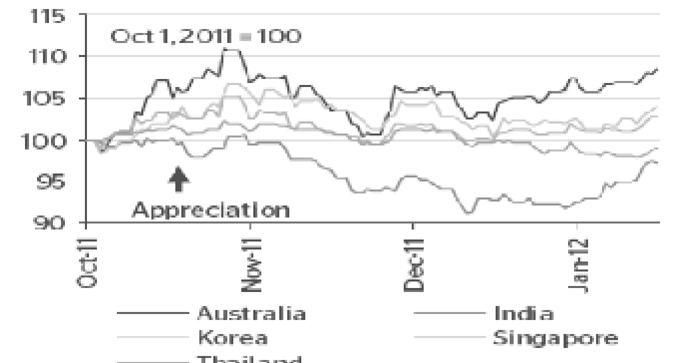
Asia: Current Account Balances (*In percent of GDP)*



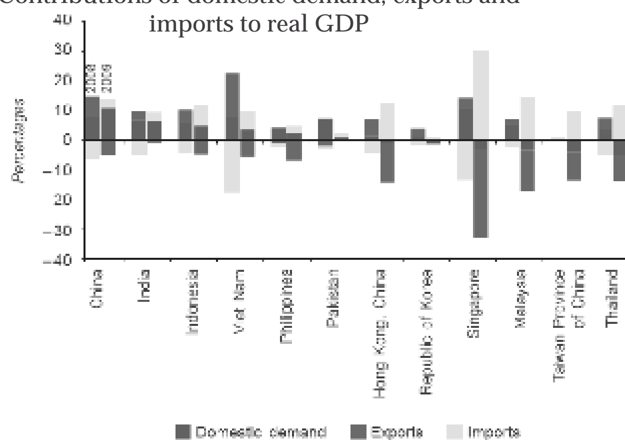
Exchange rate movements in developing economies



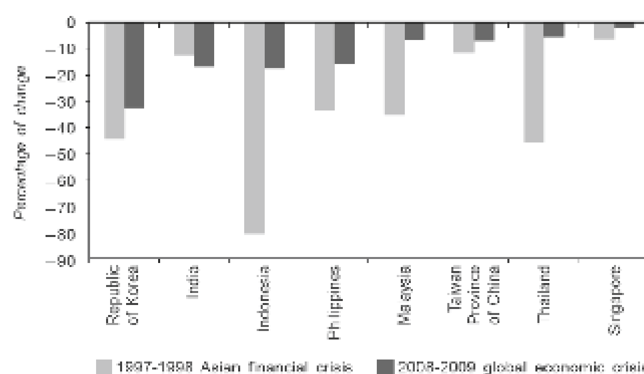
Asian Currencies have rebounded in 2012



Contributions of domestic demand, exports and imports to real GDP



Change in nominal effective exchange rates from peak to trough in major developing economies during two crises



Regional currency swings during the crisis	Dollar rates			Yuan rates		
	Boom	Bust	Recovery	Boom	Bust	Recovery
Chinese yuan	9.3	10.7	0.1	–	–	–
Indian rupee	19.2	−16.3	5.4	9.0	−26.2	5.4
Indonesian rupiah	−2.7	−20.0	20.2	−11.0	−27.7	20.0
Malaysian ringgit	10.0	−4.5	4.6	0.6	−13.8	4.5
Philippine peso	17.9	−3.0	−2.0	7.9	−12.4	−2.0
Singapore dollar	14.7	0.3	6.9	4.9	−9.5	6.8
S. Korean won	28.8	−33.5	20.9	17.8	−40.0	20.7
Taiwan dollar	6.9	−2.7	6.2	−3.2	−12.1	6.2
Thai baht	43.4	−14.3	6.3	30.9	−22.6	6.3

Note: Boom defined as January 2003 to July 2007, Bust as from August 2007 to February 2009, and Recovery as from March 2009 to September 2009.

Table adapted from Akyuz, 2009, "Capital Flows and Macroeconomic Management: National and Regional Policy Options.

Source : IMF databases, World Bank databases, EIU reports, UNCTAD reports

Appendix I

Government Financial Support for Debt Restructuring. Some AEMEs are faced with an actual or potential sharp devaluation in the context of a dollarized financial sector. The first best response would see banks provisioning proactively, obtaining additional capital and then restructuring. However, the scale of potential losses may require government intervention. Given sufficient fiscal space, the government can consider a number of possible interventions (there may also be significant recession-related losses that will require more orthodox approaches).

Recapitalization: The government could wait for the devaluation to impact banks' balance sheets (indirectly, if households or firms face the mismatch and default on foreign currency loans from the banks). Then, fiscal resources could be deployed to recapitalize banks (to the extent that additional capital from shareholders is not available), forcing the banks' owners to absorb the first tranche of losses. This option might be relatively low cost, because the banks' existing owners would take a large hit and the government might recover some of the recapitalization costs at a later date. However, foreign ownership of the banks might raise difficulties (the banks might simply walk away, substantially reducing credit availability, at least in the short run). In addition, households and corporations might be left with liabilities that they cannot pay, leading to a steady drip of defaults that continues to weaken bank balance sheets and saps confidence. In response to the current crisis, Romania has attempted to avoid complications that could arise from high foreign ownership of domestic banks by actively seeking support for recapitalization from their parent banks in the context of an IMF-supported program. Meanwhile, Hungary has enacted a bank support law with provisions for capital enhancement by either voluntary or mandatory means.

Temporary subsidy of loan repayments: If the exchange rate were expected to overshoot (so that much of the devaluation were temporary), then the government could negotiate with banks to temporarily reduce debt service in foreign currency

terms, with the government making up the difference. This would limit the wave of defaults, protecting the banks‘ balance sheet. However, this option poses significant risks: if the devaluation were to persist, then the government‘s exposure could quickly escalate, while continued uncertainty about the eventual outcome could sap confidence in the banks, perhaps depreciating the currency further and precipitating a deposit run, necessitating a full banking sector bailout.

Currency conversion of bank assets: The government could absorb a significant fraction of the foreign currency loss up front (perhaps requiring the banks to take a haircut on the foreign currency value of the loans) by swapping foreign currency–denominated government paper for the troubled assets and converting the latter to local currency–denominated loans (with the consent of the borrower and the lender). These could later be sold on (the government would not want to go into the banking business full time), perhaps at a reduced loss if the exchange rate were to recover. This policy can potentially reallocate foreign currency risk and losses to those able to bear them—assuming that the government has sufficient resources. In comparison to devaluing and recapitalizing the banks afterwards, this up-front conversion has the benefit of avoiding costly defaults and foreclosures and drawn-out uncertainty that could sap confidence and further depreciate the exchange rate (although some recapitalization may still be required). However, currency conversion might prove prohibitively expensive for most governments.

In reality, countries may find it best to adopt heterodox approaches that combine elements of different schemes. For instance, in Hungary the government has reached an agreement with banks to facilitate loan restructuring through various options, including loan maturity extensions, a temporary easing of repayments, and a conversion of foreign exchange loans into domestic currency, while introducing legislation to provide temporary state guarantees for mortgage payments of the unemployed. Because all interventions are likely to incur significant fiscal costs, governments should also bear in mind the redistributive and equity implications of the interventions, which could affect the public support for other difficult crisis mitigation measures.

Appendix II

Credit Guarantee Schemes: Principles and Design Issues

Government guarantees of bank lending could be a useful form of fiscal stimulus when other (and less distortionary) policy options are constrained and where the shock to demand has come mainly through a sharp reduction in the supply of bank credit due to higher perceived credit risk (as opposed to deleveraging).

Assuming that a credit guarantee scheme could help, what are the principal design issues?

- Adverse selection is a key concern: banks may seek to offload credit risk by tapping government guarantees of their worst existing loans. Limiting guarantees to new lending and to sectors where the government can easily verify the quality of the borrower (e.g., because the loan is fully collateralized) is one means of reducing adverse selection.

- Moral hazard problems apply more to new lending: banks may take on more risky loans with a government guarantee. Offering only partial guarantees is one means of reducing this problem, although in this case the guarantee may be insufficient to encourage new lending.

- Additionality is another worry: banks may not make any additional loans, but merely reduce their risk exposure. Because money is fungible, this is hard to overcome. However, if banks are able to reduce their risk exposure for a given loan portfolio, they ought to be able to expand their balance sheet, even if less than one-for-one with the volume of loans guaranteed.

- Bank bailouts: persuading banks to increase their lending while avoiding principal-agent problems (adverse selection and moral hazard) may be easier in the context of broader government intervention in the banking sector. For instance, lending targets could be a condition of government recapitalization of undercapitalized banks, and the government may be able to more easily control and monitor the behavior of banks in which it has an equity stake.

However, this raises the risk of political interference, inefficient directed lending, or even outright corruption, particularly in countries with relatively weak governance.

- Fiscal sustainability is a key consideration for all fiscal policy interventions. However, because credit guarantees are contingent liabilities, exposure needs to be monitored particularly carefully as a deterioration in external conditions could radically increase the government's overall exposure.

Appendix III

We divide the countries into two groups according to their quarterly real GDP growth rates since the beginning of the episode. One group of "smooth-sailing" countries, including China, India, Indonesia, the Philippines, and Vietnam, was affected relatively less by the crisis. Another group of "storm-tossed" countries, including Hong Kong, Malaysia, Singapore, South Korea, and Thailand, suffered more.

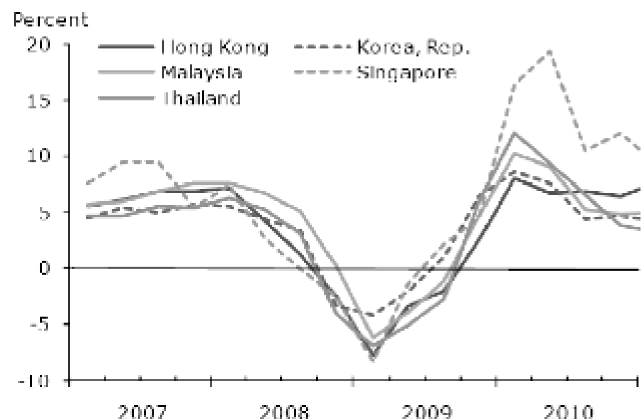
During the first quarter of 2009, after the crisis had intensified globally, overall Asian GDP growth hit a low point. The average GDP growth rate for the 10 countries in our sample fell to –1.3%. However, the stormtossed countries in panel A fell much deeper, declining by –6.7%. By contrast, panel B shows that none of the smoothsailing countries experienced a negative growth rate during the crisis. In fact, during the first quarter of 2009, these countries averaged a robust growth rate of 4.1%. Figure 5 plots the relationship between manufactured goods exports as a share of GDP against the change in real GDP growth between the first quarter of 2008 and the first quarter of 2009. For the storm-tossed countries, manufacturing exports averaged 86.8% of GDP, compared with 23.7% of GDP for the smooth sailing countries. Hong Kong, Singapore, and Malaysia have the highest share of manufacturing exports relative to GDP (159.9%, 128.5%, and 67%, respectively). These countries also had the largest declines in real GDP growth: –15.1% for Hong Kong, –15.8% for Singapore, and – 13.7% for Malaysia. Thus, countries that relied more heavily on exports of manufactured goods were hit harder by the crisis.

Emerging Asia's storm-tossed countries recovered to their pre-crisis GDP growth levels by early 2010. This rapid rebound indicates that the costs of trade and open financial markets were relatively limited for countries where economic fundamentals were in order.

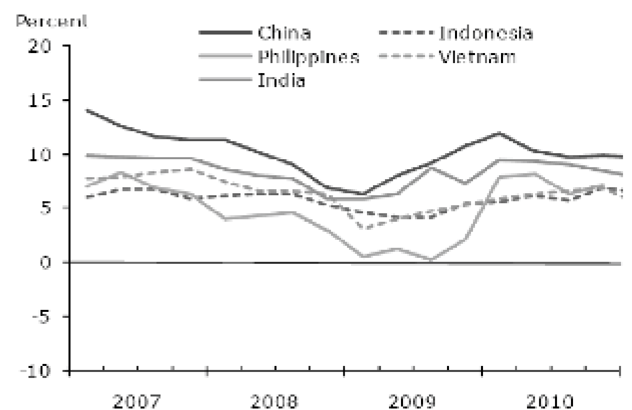
Figure 4

Year-over-year real GI

A. Storm-tossed countries



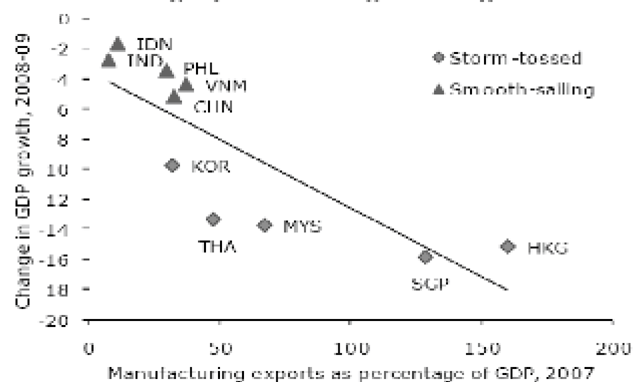
B. Smooth-sailing countries



Sources: Bloomberg, FAME database.

Figure 5

Manufacturing exports vs. change in GDP growth



Sources: World Trade Organization, World Bank, Bloomberg.

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ENTREPRENEURIAL INCLINATION AMONG THE BUSINESS MANAGEMENT STUDENTS: AN EMPIRICAL STUDY

Prof. Shabana A. Memon

ABSTRACT

Today an off-beat career choice such as Entrepreneurship is gaining huge popularity due to the cut-throat competition and lack of opportunities in the formal sectors. Dozens of youths with a dream to do something on their own are leaving their secure jobs to pursue their dream business venture. Entrepreneurship fever is gripping a rising tide of young professionals today, due to the opportunities thrown up by liberalization and economic growth.

In the prevailing scenario, Management Institutions often boost of near 100% job placement for their students and strive to create their identity around the same. But in the days to come the basis to identify an excellent institution will depend on how many entrepreneurs it created rather than how many students could find lucrative placements.

A questionnaire was administered to around 89 graduate and post graduate students at Bharati Vidyapeeth's Institute of Management, Kolhapur. The study aims at finding out the various motivating factors which make the student select entrepreneurship as a career option as well as the various perceived difficulties which hinders the choice of the students in selecting entrepreneurship after their post graduate course. The hypothesis based on this idea are tested using non-parametric tests. Based on the findings, suggestion are given regarding improvement of Entrepreneurial programs conducted which will help to continuously inventory the students' attitude, skills and competencies for an entrepreneurial career, whereby a rich entrepreneurial culture among the students will be created.

Keywords: ***Entrepreneurship, business venture, motivating factors, skills and competencies***

INTRODUCTION

Entrepreneurship is referred to as the process of innovatively exploring and exploiting opportunities in the midst of risks and uncertainty by synthesizing resources to create novel outputs often within the context of new organizational formation (Casson, 2003; Shane, 2003). Being the driving force of innovation, entrepreneurship offers the benefits of increased economic efficiencies, bringing innovation to the market, job creation, and sustained employment (Shane & Venkatraman, 2000; Matlay, 2005; Roxas, Lindsay, Ashill, & Victorio, 2007).

Every country is keen in promoting its economic development – Economic development means development of agriculture and industry which results in increase in per capita income of the country. Economic development depends on human resources; it requires an agent who is nothing but a dynamic entrepreneur. An entrepreneur acts as a hero in the drama of economic development. The entrepreneurs are always on a look out of making economic system at its dynamic best and stimulate progress. They have the potential of transforming their underdeveloped economies into developed economies. Thus we can say- "An economy is the effect for which entrepreneurship is the cause".

Since the last decade of twentieth century India has strived for an experienced and unprecedented economic turn-around. The country has witnessed a structural shift in GDP growth, propelled largely by new investments and the growth of the value enhancing services sector. The Indian Economy is among the few largest economies in the world and is going to be a dominant force in the new world order in the coming years. With the world looking up at India mainly because of the low-cost manufacturing in services, countless business opportunities have opened up in this respect in the country; thus entrepreneurship seems to be a viable mode for the economic development in a country like India which is still a developing economy.

After nearly a decade of record breaking placement figures grabbing headlines entrepreneurship is the buzzword on campuses across India. While the economic slowdown of 2009 reversed the trend of record breaking placement offers at academic institutes across the country most prominently at B schools, it also lead to a positive development on another front, 'Entrepreneurship'. Compelled to come out of their reverie and look at life beyond a cushy job, students across the country are increasingly turning entrepreneurs. Statistics from top management institutions indicate a large number of students now turning down job offers, sometimes lucrative ones, in favor of starting up their own venture.

The attitude of individual to get involved in the field of entrepreneurship is driven by a number of factors that can be categorized as a Push Factors and Pull Factors.

Pull factors:

It implies the factors which encourages entrepreneurs to start occupation with the urge to do something independently.

Push factors:

Are those which compel entrepreneurs to take up business to tide over their economic difficulties.

Another reason for opting of entrepreneurship may be not satisfied on his/her present job either because of the job itself, unsatisfactory remuneration, conflicting with leadership or organization culture.

Objectives:

1. To study the awareness about entrepreneurship among the management students.
2. To understand the gender bias towards entrepreneurship.
3. To explore the relation between students inclination toward entrepreneurship and the profession of their parents.
4. To study the relation between the academic achievement of the students and selection of entrepreneurship as a career option.

Research Methodology:

Sample sizes of 89 graduate and post graduate students were randomly selected from Bharati Vidyapeeth Deemed University, Institute of Management, Kolhapur. A questionnaire was administered to the students wherein the various motivational factors as regards to their choice for entrepreneurship along with the perceived barriers for entrepreneurship were elicited. The chi Square test was applied to test the hypothesis formed.

Hypothesis:

1. Gender and choice to be entrepreneur are independent.
2. Entrepreneur aspirants and parents profession are independent.
3. Students with a low academic performance are more likely to select entrepreneurship as a career option compared to those having a high academic performance.

Review of Literature:

- Caird (1988) stated that entrepreneurial attitudes could also be referred to individual levels of entrepreneurial attitudes to establish and run projects. Caird (1988) also concluded that entrepreneurial attitudes tended to rely on the need for autonomy, internal locust of control, creativity, risk taking and self-believe.
- Brush (1992) found that men are more inclined towards entrepreneurial business than women

with similar background. A large quantity of researches proved that women face more difficulties in venturing process as compared to their male counterparts. Particularly, women entrepreneurs face more difficulty in arranging a capital to start or to support their business (Fay & Williams, 1993) or to have angel financing (Becker-Blease & Sohl, 2007), have a lower degree of human and financial capital (i.e., education and work experience) invested for starting up the new entity (Boden & Nucci, 2000).

- Crant (1996) found that entrepreneurial attitudes could be linked to an individual consideration of owning a business. The research was conducted in a university in the United States and highlighted that gender; educational level and parents who own businesses contribute towards influencing entrepreneurial attitudes.
- Gorman, Hanlon & King (1997) confirm "that entrepreneurial attributes can be positively influenced by educational programs and that many entrepreneurship programs and courses are able to build awareness of entrepreneurship as a career option and to encourage favourable attitudes toward entrepreneurship".
- According to Mazzarol, Doss & Thein (1999) Entrepreneurial character and nature owned by some individuals together with demographic factors have also been proven to have close relationships towards the attitude to become an entrepreneur by establishing new businesses. Past research had shown that the interest of various demographic variables such as personality, human capital, ethnicity, marital status, educational level, family size, work status and experience, age, gender, socio-economic status, religion and nature of personality contribute towards establishing a business
- Harvey (1999) says the relationship between education and employment is a symbiotic one. However, the contemporary context of today's economy has replaced "employment" with "employability". Accordingly higher education institutions' role is to provide their students with lifelong learning.
- According to Charney & Libeca (2000) the contribution of entrepreneurship education to societies is perceived as grand. Research shows that entrepreneurship graduates are more productive and thus their business start ups have greater sales than those established by non-entrepreneurship graduates. Moreover, entrepreneurship graduates differ from those non-entrepreneurship graduates in terms of innovation and knowhow and consequently present more opportunities with advancing technologies
- According to Toledano & Urbano, (2008) entrepreneurship education could promote entrepreneurial attitudes and mindsets through focusing on informal institutions such as role models.

Entrepreneurship-Need of the society and career option:

It is generally believed that the wars between the nations now will be fought in the market place and not on the Line of Control. The strength of the nation will be measured in terms of GDP, FOREX Reserve, global market share, creation of multi National Corporation etc. and the starting point will be nurturing the entrepreneurial process and encouraging it.

Entrepreneurs contribute to a nation and society in several ways-

- Generation of Employment
- Increased disposal income due to employment generation.
- Increased consumption of product and services
- Promotes Balanced Regional development.
- Encourages effective resources mobilization of capital and skill which otherwise would remain unutilized and idle
- Proper utilization of natural resources

- Capturing market opportunities.
- Promote capital formation by mobilizing the idle saving of public, thus provides a strong Stock Market.
- Improved quality of life for all.
- A better standing of India in the global market.

The government too has created enormous amount of funding towards the promotion of entrepreneurship especially for small and medium-sized enterprises but the uptake is still slow. The increasing unemployment problem has forced Indian policy-makers to explore new avenues to lead students towards self-employment / entrepreneurship in their early career.

In fact, over the last few years, graduate unemployment has become a major problem. Re-examination of our higher education system is needed to find out the stumbling blocks that hinders the growth of entrepreneurship. The myth that the entrepreneurs are born is no more valid, as it has been proved that entrepreneurs can be developed through scientific methods and training.

The Entrepreneurship Development Program (EDP) also aims at motivating, developing and counseling potential entrepreneurs to establish their own enterprises and competencies. It is also the time to further examine whether our existing university students are inclined towards entrepreneurship or not. In the emerging scenario, a different set of factors which are healthier and positive have necessitated the promotion of entrepreneurship among the students.

Today, technology is considered to be the front runner in providing competitive cutting edge to any economic activity. The technology driven environment has added a new dimension to the quest for promotion of entrepreneurship among management students. With the boom in Indian economy, the environment is just right to provide good scope for entrepreneurship.

Entrepreneurship Education:

Attributes usually associated with entrepreneurship include innovative approaches to problem solving; high readiness for change, self confidence and creativity. These uniquely contribute across all economic systems. It is now recognized that entrepreneurship is not exclusive to the creation of new businesses but it also offers opportunities within existing organizations which is often termed as ' Intrapreneurship' or 'Corporate Entrepreneurship'.

Traditional teaching methods such as lectures and examinations, are not the most effective means of encouraging entrepreneurial skills set development. In entrepreneurial learning, traditional teaching methods need to be complemented by activities such as learning by doing that is engaging students in experiential learning.

Many studies have revealed that entrepreneurial intention could be influenced from two sources, internal and external. Internal factors include a strong motivation and personal characteristics of students while external factors cover the external environment that may support or hinder entrepreneurial intention. For instance, the uncertainty in the political and economic situations such as those in developing countries, may affect the entrepreneurial intention among students, therefore, to design a good policy, it is important to know what factors support or prevent the intention of students in starting their own firm after graduating. In order to accelerate the formulation of new enterprises, imaginative programs and policies backed up by sound institutional support are called for to identify, motivate and strengthen the new breed of entrepreneurs.

At present there is a need to develop and empower the youth in the society. There is seeming consensus on the importance of entrepreneurship in ameliorating some socio economic problems especially poverty, unemployment and all sorts of social vices in the society. Thus, the focus of teaching and learning particularly in developing countries where these problems are predominant call for another approach. This clear indicates the sheer need of re orientation towards inculcating values that allow acquisition of necessary competencies to sense of self reliance, independence, youth empowerment and of course poverty reduction.

Data Analysis and Interpretation:

- Students career option:

Choice of Career	Respondents	Percentage (%)
Higher Studies	15	16.85
Services	30	33.71
Professional	20	22.47
Entrepreneur	24	26.97
Total (Students)	**89**	**100.00**

33.71% students have selected the choice of going for service, while 22.47% have decided to take up a profession and 26.97% have the thought of entrepreneurship. The important feature is that 24 out of 89 (26.97%) candidates opted for Entrepreneurship as their career option.

- Motivational factor for Entrepreneurship:

Motivational Reasons	Respondents	Percentage (%)
For Money	11	45.83
For Respect in Society	02	08.33
For Being your Own Boss	06	25.00
For Proving your Skills	04	16.67
Other Reasons	01	04.17
Total (Students)	**24**	**100.00**

Around 71% students feel that, to make money and be their own boss (have independence in implementing own ideas) is a motivation for taking up entrepreneurship.

- Reasons for not opting for Entrepreneurship:

Reasons	Respondents	Percentage (%)
Lack of Funds	15	23.07
High Risk	12	18.46
Not Favorable Environment	15	23.08
Lack of Proper Knowledge	15	23.08
Any Other Reason	08	12.31
Total (Students)	**65**	**100.00**

The major reasons for Non Acceptance of Entrepreneurship given by the students are lack of funds,unfavorable environment and lack of proper knowledge which together comprises of 69 %.

- Students view towards taking up Entrepreneurship at a later stage in life.

Reasons	Respondents	Percentage (%)
After Work Experience	36	42.86
After Maturity of Business-risks	07	08.33
Self Development	22	26.19
Accumulate Funds	18	21.43
Any Other Reason	01	01.19
Total (Students)	**84**	**100.00**

42.86%. of the candidates, intend to go for Entrepreneurship, after getting some work experience whereas 26.19% are planning for self development before choosing entrepreneurship and 21.43% want to collect funds first before taking up entrepreneurship.

- .Hypothesis (H0) Selection of Entrepreneurship and gender are independent

Gender \ Choice	Entrepreneur	Non Entrepreneur	GT
Male	f_o 14 f_e (30*24)/63 = 11.43	f_o 16 f_e (30*39)/63 = 18.57	30
Female	f_o 10 f_e(33*24)/63 = 12.57	f_o 23 f_e(33*39)/63 = 20.43	33
Total	24	39	N = 63

$$x^2 = \sum_{i-1} (f_o - f_e)^2 / f_e \quad (14 \;\; 11.43)^2/11.43 - (16 \;\; 18.37)^2/18.37$$

$$+ (10 \;\; 12.57)^2/12.57 + (23 \;\; 20.43)^2/20.43$$

$x^2 = 0.578 + 0.357 + 0.525 + 0.323$

$x^2 = 1.784$ *Calculated value of x^2*

Table Value $x^2_{0.05} = 3.841$, with (r-1) (c-1) d_f, with (2-1) (2-1) d_f i.e. d_f

$x^2 < x^2_{0.05}$, i.e. $1.784 < 3.841$ at 5% level of significance

Accept (H_0) at 5% level of significance

That is Gender and Selection and Entrepreneurship as a career is independent. There is no reason to reject the (H_0) Null Hypothesis at 5% Level of Significance. This shows that the females in this Management Institution have broken the glass ceiling and have opted to going for Entrepreneurship/ Self Employment.

Region of Dwelling/Residence and the Choice of Entrepreneurship among the Management Students

Choice → / Gender ↓		Entrepreneur	Non Entrepreneur	GT
RURAL	Male	09 (7.23)	07 (8.77)	16
	Female	05 (6.77)	10 (8.23)	15
	Total	14*	17*	31*
URBAN	Male	06 (5.15)	09 (9.84)	15
	Female	05 (5.84)	12* (11.16)	17
	Total	11*	21*	32*
	GT	25*	38*	N = 63

Chi – square Test

Region of Dwelling/Residence and the Choice of Entrepreneurship are independent

$$x^2 = \sum_{i-1} (f_{ni} - f_{ei})^2 / f_{ei} = (09 - 7.23)^2/7.23 + (07 - 8.77)^2/8.77 + (05 - 6.77)^2/6.77$$

$$+ (10 - 8.23)^2/8.23 + (06 - 5.15)/5.15 + (09 - 9.84)/9.84 + (05 - 5.84)/5.84 + (12 - 11.16)/11.16$$

$\mathbf{x^2 = 0.433 + 0.357 + 0.463 + 0.381 + 0.140 + 0.072 + 0.121 + 0.063}$

$\mathbf{x^2 = 2.03}$ ***Calculated value of x^2***

Table Value $x^2_{0.05} = 3.841$, with (r-1) (c-1) d_f, with (4-1) (2-1) d_f i.e. d_f

$x^2 < x^2_{0.05}$, i.e. $2.03 < 3.841$ at 5% level of significance

Accept (H_0) at 5% level of significance

Ho is accepted that students' area of dwelling (Rural or Urban) does not affects their choice of taking up Entrepreneurship.

Occupation of Parents and Choice of Entrepreneurship of wards:

Occupation of Parents ↓ / Choice →	Entrepreneur (Observed) (Expected)	Non Entrepreneur (Observed) (Expected)	GT
Service	10 (8.26)	20 (21.74)	30
Self Employed	09 (10.74)	30 (28.26)	39
Total	19	50	N = 69

Hypothesis (H0) Occupation of Parents and Choice of Entrepreneurship of their wards is Independent

$$x^2 = \sum_{i-1} (f_{oi} - f_{ei})^2 / f_{ei} = (10-8.26)^2/8.26 + (20-21.74)^2/21.74 + (09-10.74)^2/10.74 + (30-28.26)^2/28.26$$

$\mathbf{x^2 = 0.367 + 0.287 + 0.107}$

$\mathbf{x^2 = 0.8951}$ ***Calculated value of x^2***

Table Value $x^2_{0.05} = 3.841$, with (r-1) (c-1) d_f, with (2-1) (2-1) d_f i.e. d_f

$x^2 < x^2_{0.05}$, i.e. $0.8951 < 3.841$ at 5% level of significance

Accept (H_0) at 5% level of significance. Thus we see that Occupation of Parents and Choice of their Ward selecting Entrepreneurship is Independent.

• Student with low Academic Achievements and selection of Entrepreneurship is independent:

Academic Achievement ↓ / Choice →	Entrepreneur (Observed) (Expected)	Non Entrepreneur (Observed) (Expected)	GT
2nd Class	07 (8.53)	24 (22.45)	31
1st Class/ Dist.	17 (15.45)	39 (40.55)	56
Total	24	63	N = 87

Hypothesis (H0) Student with low Academic Achievements and going for Entrepreneurship is independent:

$$x^2 = \sum_{i-1} (f_{oi} - f_{ei})^2 / f_{ei} = (7-8.55)^2/8.55 + (24-22.45)^2/22.45 + (17-15.45)^2/15.45 + (39-40.55)^2/40.55$$

$\mathbf{x^2 = 0.281 + 0.107 + 0.1555 + 0.0592}$

$\mathbf{x^2 = 0.6027}$ ***Calculated value of x^2***

Table Value $x^2_{0.05} = 3.841$, with (r-1) (c-1) d_f, with (2-1) (2-1) d_f i.e. d_f

$x^2 < x^2_{0.05}$, i.e. 0.6027 < 3.841 at 5% level of significance

Accept (H_0) at 5% level of significance. Thus we see that Students with lower Academic Achievements and their selection of Entrepreneurship is independent.

Conclusion and Suggestions:

In the quest to enhance students' learning and cope with the 'knowledge' economy challenges, higher education institutions are embedding entrepreneurship education programs in their curricula. Furthermore, there exists "a broad consensus as to the nature of the pressures on higher education throughout the world to become more entrepreneurial or enterprising" (Gibb & Hannon, 2006).

Endorsing academic entrepreneurship has become a major topic of public policy across the developed and developing countries. Interest in entrepreneurship is intense in many parts of the world. It is time to examine whether our entrepreneurs, the engine of economic formation are widely encouraged by national economic policies to stimulate economic growth and wealth creation.

Linking entrepreneurship to education would mean re-orienting present education to a specific result

oriented objective wherein the students will be linked to various functions and responsibilities expected to be carried out by an entrepreneur, whether technical or managerial.

On hindsight, a proper support system, education and the development of managerial competencies may go a long way in making the entrepreneur aspirants successful. Business college graduates and students are increasingly disenchanted with career prospects as organizational employees. Fierce competition, cost-cutting pressures and leveraged buyouts have resulted in corporate restructurings that have undermined such traditional values as employee loyalty, security and ownership of results (Jackson and Vitberg 1987). Consequently more and more business students view the possibility of starting and operating their own business as a viable alternative to being employed by an established company

The present study revealed some interesting trends regarding entrepreneurship which are somewhat different from the available body of knowledge regarding entrepreneurship climate in the country. The findings of the study showed that –

- Entrepreneurship is no more a male oriented activity, even females are prepared to take a leap into being entrepreneurs and thus women entrepreneurship will be on a rise where by women empowerment will be achieved.
- Even those students hailing from rural areas are equally equipped to take a plunge into entrepreneurship like their urban counterparts, this is due to improved means of technology and explosion of knowledge which help them to access to all happenings around the world, no matter where they are.
- It was found that not only the wards of parents having previously established business want to be entrepreneurs, but also those who have parents serving would like to take up entrepreneurship and be self employed. After all the generation of today wants to be their own boss and have their own ways of doing things and prove themselves.
- It was also proved that our believe that those with low academic achievement would not find good jobs and so the only option is to do some business to earn a living, is wrong even those with high academic record would prefer to start an enterprise of their own and be self-employed.
- Many said that they would not immediately go for starting a new venture but take some experience by working somewhere, get the required knowledge and skill and then take up Entrepreneurship. It is appreciated to see that the seeds of entrepreneurship are sowed in them.
- The researcher also observed that the students of MBA (IT) are with a BCA degree at their graduation, thus they were not aware of the concept of Entrepreneurship itself. Our syllabus and curriculum should be reframed wherein the students will be exposed to various managerial functions and responsibilities whereby development of managerial competencies can be done which may help in making them entrepreneur aspirants
- Finally we can say that the educational institute should see that this subject is taught in the right perspective with all the inputs required so that entrepreneurial environment is built in the campus which will definitely reap results in the form of creating future entrepreneurs for India, which is the need of the hour.
- The researcher also feels that this subject should be included right from the first year of their degree instead in the final year as it is presently done and secondly care should be taken that the subject Entrepreneurship development included in the university syllabus does not remain a subject to be mugged up for the sake of passing the examination only.

This study will definitely help the Management Institutes and other agencies concerned in formulating policies and strategies to further boost the change in the trend seen among the management students and at the same time it will also help the coming generations in making India a critical force in the global economy.

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Effect Of The New Product Patent Regime On The R&D Expenditure And Business Strategies Adopted By The Indian Pharmaceutical Companies In

Geetanjali Deshmukh

ABSTRACT

Non-recognition of product patents for drugs under the Indian Patent Act,1970 was largely responsible for the rapid growth of the indigenous Indian pharmaceutical industry.The recent signing of the TRIPs agreement, however, reverses the patent law followed since the 1970s. The firms that have developed knowledge and capabilities in reverse engineering-based R&D in the past are required to reorient themselves for R&D-based innovation to survive and compete in a regulated and open market. This paper analyses the implications of a new IP regime on the R&D aspect and the business strategies of one of India's leading pharmaceutical company,viz, Dr.Reddy's Lab (DRL),in response to the new and challenging business environment brought about by the introduction of the new patent regime. The result suggests that, barring a few exceptional years, the increase in R&D intensity of DRL is a significant aspect of the Indian pharmaceutical industry's response to the TRIPS regime.It is an indication that the Indian pharmaceutical companies have started allocating increasing amounts of the sales turnover towards R&D spending and are gearing up to face the challenges of the new product patent regime. With the traditional methods of concentrating the R&D efforts on reverse engineering and adaptation of foreign patented drugs to the Indian market no longer available post-TRIPS, the company has started focusing on new drug discovery and development, exporting to regulated markets and forming co-operative alliances with MNCs for which it has adopted a distinctive business model that simultaneously uses both, co-operative and competitive strategies.

Keywords: *IP(Intellectual Property), IPR(Intellectual Property Rights), R&D(Research & Development),TRIPs(Trade-Related Aspects of Intellectual Property)*

INTRODUCTION

The level of IPR (Intellectual Property Rights) influences the corporate sector in more than one ways. For example,the level of patent protection in a country greatly influences the domestic pharmaceutical industry in terms of its growth, R&D (Research & Development) investment, technology and export capacity and the overall business strategies employed by the firms. In case of the Indian pharmaceutical industry, it was the lack of strong IP(Intellectual Property) protection that was responsible for its remarkable growth. The passing of the Indian Patent Act,1970 , which did not recognise product patents for vital areas like food, drugs and atomic energy fuelled the rapid growth of the indigenous industry. The foundation of the success experienced by the Indian pharmaceutical industry at the later stage was laid down in the 1970s. The recent signing of the TRIPs agreement (Agreement on Trade –Related Aspects of Intellectual Property), however, reverses the patent law followed since the 1970s. The firms that have developed knowledge and capabilities in reverse engineering-based R&D in the past are required to reorient themselves for R&D-based innovation to survive and compete in a regulated and open market. This has serious implications for the Indian pharmaceutical firms.

Several studies have been conducted by industry experts, academicians, various governmental as well as pharmaceutical industry bodies ASSOCHAM,IDMA,BDMA; banks like the EXIM Bank and the Deutche Bank; international organizations like the United Nations . These research papers, reports and studies undertaken,show the growth of the Indian pharmaceutical industry , its export performance,R&D activity , while some have analysed the emerging business opportunities/challenges before the Indian pharmaceutical industry in the post-TRIPS era . To mention a few from among the reviewed literature- Lanjouw (1998) discusses the various theoretical implications for a developing country of introducing product patents for pharmaceuticals using India as an example.1 Nauriyal and Sahoo (2007) focus on the performance of the Indian pharmaceutical industry during the deregulated period from 1995 to 2006, the nexus between R&D expenditure and growth performance of the pharmaceutical industry and specifies a model to evaluate the performance in the light of the patent, R&D expenditure and the marketing strategies of the firms in the industry.2 Dinar kale (2007), in his working paper explores the motives and patterns of internationalization by the Indian pharmaceutical firms directed towards expansion in foreign markets and accessing new technologies.3 Greene (2007) in his working paper presents an overview of India's pharmaceutical industry and its evolution from almost non-existent to one of the world's leading suppliers of generic drugs.4 Chaturvedi, Kalpana and Chataway, Joanna (2006) examine the contemporary strategic approaches adopted by Indian leaders for integrating new knowledge and capabilities in order to develop innovation competencies for tomorrow.5 Rao.M.B.and Guru Manjula in "WTO and International Trade", provide complete framework of the TRIPS Agreement.6 ASSOCHAM'S " White Paper on IPI-Quest for Global Leadership"(2006) highlights India's global competitive strategy, industry partnership & alliances, CRAMS & clinical trials and drug discovery & development.7 EXIM(2007)Bank's research finding's suggest that the growth momentum of the IPI, after the challenges posed by the WTO regime, has gained momentum and many Indian pharmaceutical companies have not only shown good performance domestically but have also been able to establish their foothold in overseas markets.8 Chaudhuri,Park & Gopakumar(2010)in a study commissioned by the United Nations Development Programme (UNDP) analyse the role of both, the Indian pharmaceutical industry and the Indian legal system in its contribution as a supplier of affordable medicines, five years after having complied with the TRIPS Agreement, focusing mainly on the future of affordable generic HIV/AIDS drugs supplied by Indian generic producers.9 Annual Report (2003-2004) Department Of Chemicals And Petrochemicals Ministry Of Chemicals & Fertilizers Government Of India New Delhi, shows the performance of the pharmaceutical industry in production, exports and imports.10 With the objective of understanding the implications of re-introduction of product patents for pharmaceuticals in India, this research paper carries out an in-depth analysis of the R&D expenditure and business model adopted by one of India's top pharmaceutical company, viz, Dr.Redyy's Lab (henceforth referred to as DRL) and includes the R&D expenditure, business strategies, internationalization motives and patterns adopted by DRL in the post-TRIPS period under the new product patent regime.

1.2 Methodology Adopted -

The basic objective of this research paper is to study whether the TRIPS-compliant Patent regime has resulted in significant changes in the R&D expenditures of DRL and also to Investigate the strategies and behavioural patterns adopted by this company in response to the new IP regulatory framework brought about by the introduction of the new patent regime in the post-TRIPS period.

In order to complete the present research and analyse the data in the right perspective, the Desk-Research method and Survey method have been adopted. In this, access to the various sources of information was of immense use in compiling and analysing the data. Similarly self- constructed questionnaire was sent to the selected pharmaceutical company. On the basis

of the feedback received from the respondent, the data has been analysed.

The scope of this research paper is confined to the Indian Pharmaceutical industry and the implications of the new product patent regime on the R&D aspect. It focuses on one of India's top pharmaceutical company, viz, Dr. Reddy's Lab (DRL). With the implementation of product patents in India in January 2005, investing in R&D became inevitable for the pharmaceutical companies. Under the new product patent regime, a shift in the model of R&D investment by Indian companies from core process research to new drug development and novel drug delivery systems (NDDS) became very significant.

1.3 Results And Discussion -

Research & Development is the key to the future of pharmaceutical industry. The pharmaceutical industry is a science–based knowledge-driven industry, which depends heavily on R&D for new products to fuel its growth. However the costs involved in R&D are exorbitant. For instance, cost of developing one new drug in the US increased from $54million in 1970 to $231 million in 1990. Moreover R&D activity is characterized more by failure than by success. Recent studies indicate that 1 out of 5000-10,000 compounds synthesized during applied research eventually reaches the market. Other estimates indicate that of 100 drugs that enter clinical testing phase 1(3),about 70 complete phase I, 33 complete phase II and 25-30 clear phase III. Only two-thirds of the drugs that enter phase III a re ultimately marketed. Because of these reasons and due to the protected policy regime, the R&D investment in India has been very low and started picking up only in the 1990s(N.Lalitha,2003).

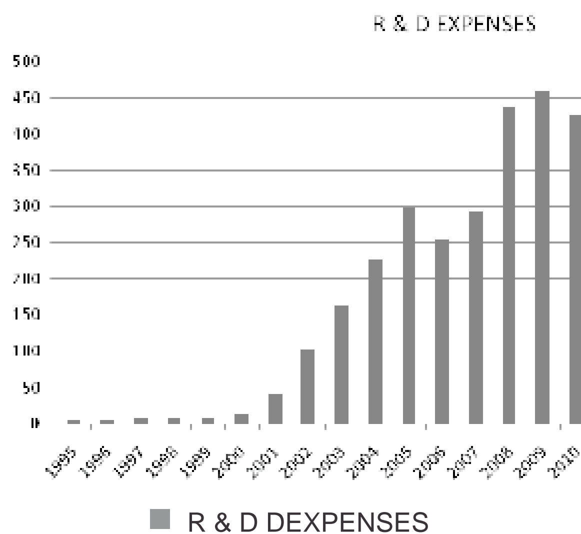
The R&D expenditure of DRL was negligible during the pre-TRIPS period(Rs.3.98 crores in1995). This was because, with process patents being recognized under the Patents Act of 1970, the Indian pharmaceutical industry did not invest highly on R&D of drugs as the legal provisions allowed production of generic drugs. However, with the impending TRIPS Agreement, change in patent laws and policy scenario, the industry was forced to re-visit its business strategy thereby recognizing the importance of R&D and gradually started increasing its investments in R&D in order to ensure long term sustainable growth and remain competitive at the global level This fact is corroborated by the data laid down in Table 1, which indicates a steady impressive increase in R&D expenditure of DRL .

Table 1- R & D EXPENSES OF DRL (Rs.Crore)

YEAR	R & D EXPENSES
1995	3.98
1996	5.34
1997	7.83
1998	7.07
1999	9.4
2000	13.27
2001	41.54
2002	101.76
2003	163.49
2004	226.05
2005	297.79
2006	253.95
2007	292.8
2008	437.2
2009	457.8
2010	427.1

Source- CMIE, PROWESS DATABASE

Graph 1 : R & D EXPENSES



Analysis-

The above figures relate to the R&D expenditure of DRL over a period of time, from 1995-2010. Although the expenditure towards research was comparatively less upto 2001, the period from 2002 to 2010 shows an incremental growth. Thus DRL has increased its R&D expenditure quite substantially in response to the TRIPS regime.

DRL was the first Indian pharmaceutical company to conduct research and begin a drug discovery programme as early as 1993. Drug discovery research was pursued intensely as an competitive strategy in the post 2005 era and DRL became one of those companies with highest R&D investment amongst the Indian pharmaceutical companies. But due to several setbacks suffered by the company because of the 'high-risk-high-gain' growth strategy adopted by it, DRL has re-worked its strategy and has opted for a collaborative R&D model reducing its investments and risks. Barring a few exceptional years, the increase in R&D intensity of DRL is a significant aspect of the Indian pharmaceutical industry's response to the TRIPS regime.It is an indication that the pharmaceutical industry in India has started allocating increasing amounts of its sales turnover towards R&D spending and is gearing up to face the challenges of the new product patent regime.

DRL'S Business Model

DRL is seen following the 'collaborate and compete' strategy and is pursuing a 'high-risk high-gain' path.

DRLs COMPETITIVE STRATEGIES –

1) Speciality Generics-

In addition to obtaining an patent on active ingredient involved in a new drug, an innovator company also have secondary patents relating to the same active ingredient, such as new formulations and compositions. E.g. new dosage forms or routes to administer,new salts , esters of existing ingredient, new use for treatment of disease. These secondary patents are obtained later and hence typically expire after the basic patent on NCE(New Chemical Entites). Several development initiatives at DRL are actively focusing on the development of speciality generics.

2) New Chemical Entites : -

Although by mid-1990s , Indian pharmaceutical companies started investing in R&D with focus on developing New Chemical Entities (NCEs),none of these companies were involved in the entire process of drug discovery and development because they were not ready for the start-to-end model of NCE research. The limitations came in the form of lack of requisite skills and funds required for NCE research. So the Indain companies developed a model whereby they developed a molecule upto a certain stage and then licensed out to partners from developed nations, mostly MNCs with skills and huge investment capabilities. Dr. Reddy's had licensed out its molecule for the treatment of Diabetes (Balaglitazone) to Novo Nordisk in 1997, for carrying out toxicology studies that form part of Phase II clinical trials. This molecule also had to be dropped from clinical trials due to toxicity issues. So far, DRL has out-licensed three molecules – DRF 2725, DRF 2593 in diabetes and DRF 4158 in cancer – to MNCs for development.

3) Patenting Strategy :-

This includes a mixed strategy of both positive as well as defensive patenting.

DRL uses a patent system to secure its own products which are presently based on NDDS (Novel Drug Delivery Systems), polymorphs or novel combinations.

DRLs COLLABORATIVE STRATEGIES-

Contract Research- Contract research includes drug discovery and pre-clinical as well as clinical research. Clinical trials are used to determine whether a new drug or treatment is safe and effective. Aurigene Technologies Ltd, a subsidiary of Dr. Reddy's Lab has announced two separate tie-ups to discover potential drugs; one with a US company, Forest Laboratories Holdings Ltd, to develop novel small molecule drug candidate for obesity and metabolic disorder, and the other one with Merck Serono International S.A to work on identifying small molecule drugs to treat autoimmune diseases(Export-Import Bank of India August 2007)

ACQUISITION HISTORY OF DRL

1. Acquires Benzex Laboratories Pvt. Limited in 1988 to expand its Bulk Actives business.
2. Acquisition of American Remedies Limited, a pharmaceutical company based in India. in 1999
3- Dr. Reddy's Laboratories becomes India's third largest pharmaceutical company with the merger of Cheminor Drugs Limited, a group company in 2001 4 -2002 BMS laboratories and Meridian labs UK generics market - US $16 million
5- 2004 Tregenesis (US) Speciality products –US$11 million access to drug delivery platforms in the dermatology segment
6- 2005 Roche's Generic Business (Mexico) US generics market -US $ 59 million
7- 2006 Betapharma (Germany) European Generic Market - US$572 million

Source- Company literature and Dinar Kale December 2007, Internationalisation Strategies of Indian Pharmaceutical firms .

Analysis Of Emerging Strategies

Implementation of TRIPS has put two options before the Indian pharmaceutical industry to ensure their survival and growth. These Strategic options before Indian companies are -Option to compete and Option to co-operate. Rather than outrightly opting either to compete or co-operate, companies are judiciously using a combination of the two.

On the basis of the information collected regarding the business models adopted by DRL, a detailed Factor-Analysis is carried out . The analysis is based on –

1-Domestic Strengthening

2-Strategic Business and R&D Choices

3-Globalization Patterns

Table 2- FACTOR RATING

HIGH RISK	LOW RISK
NCE RESEARCH	NDDS
HIGH STAKE PATENT CHALLENGES IN FOREIGN COUNTRIES	CHALLENGING MNC PATENTS IN INDIA
HIGH COST AQCUISITIONS	NON- INFRINGING PROCESSES
OWN MANUFACTURING & SELLING FACILITY	SPECIALITY GENERICS
	IN-LICENSING
	OUT-LICENSING
	COLLABORATIVE R&D
	CONTRACT RESEARCH & MANUFACTURING SERVICES (CRAMS)
	CO-MARKETING & STRATEGIC ALLIANCES
	TIE-Ups, JV & ALLIANCES

Table 3- DOMESTIC STRENGHTENING

COMPANY	PERFORMANCE BASED ON MARKET SHARE(2005-2010)	DOMESTIC POSITION
Dr.Reddy's	Fluctuating.Sharp Decline From 6.1%(2007) to 4.8%(2008) and 5.2%(2009)	Weakened

Source- Based on Researchers own analysis
Interpretation-The above Table shows that DRL's performance kept fluctuating and the company's domestic position has weakened.

Table 4 –STRATEGIC BUSINESS AND R&D CHOICES

A) COMPETITIVE STRATEGIES:	Dr.REDDY'S
NDDS	?
NCE	?
HIGH STAKE PATENT CHALLENGES IN FOREIGN COUNTRIES	?
CHALLENGING MNC PATENTS IN INDIA	?
NON- INFRINGING PROCESSES	?
SPECIALITY GENERICS	?
B) COLLABORATIVE STRATEGIES:	
LICENSING DEALS:	
i) IN-LICENSING	?
ii) OUT-LICENSING	?
COLLABORATIVE R&D	?
CRAMS	?
CO-MARKETING & STRATEGIC ALLIANCES	?

Source- Based on Researchers own analysis

Table 5: GLOBALIZATION PATTERN

MODE	Dr.REDDY'S
HIGH COST AQCUISITIONS	?
TIE-Ups, JV & ALLIANCES	?
OWN MANUFACTURING & SELLING FACILITY	?

Source- Based on Researchers Own Analysis

Table 6- ON THE BASIS OF THE ABOVE RATING, THE INTERPRETATION FOR DRL IS AS FOLLOWS-

HIGH RISK	LOW RISK
NCE RESEARCH	NDDS
HIGH STAKE PATENT CHALLENGES IN FOREIGN COUNTRIES	SPECIALITY GENERICS
HIGH COST AQCUISITIONS	IN-LICENSING
OWN MANUFACTURING & SELLING FACILITY	CO-MARKETING & STRATEGIC ALLIANCES
	COLLABORATIVE R&D CRAMS
	OUT-LICENSING
	TIE-Ups, JV & ALLIANCES

Analysis

DRL opted for a much riskier path of new drug discovery even during its formative years. However, drug discovery research has been pursued intensely as an competitive strategy in the post 2005 era. There has been no success so far in NCE research and like Ranbaxy, DRL too suffered several setbacks in the patent litigations.The company also aggressively pursued high stake global acquisitions including a state-of-the-art manufacturing site in Mexico. However, this “High-Risk-High-Gain” strategy adversely affected the financial position of the company and it had to re-worked its strategy.It has opted for a collaborative R&D model reducing its investments and risks. It has also tied up with innovator companies in both US and non-US markets. Quite in contrast to its aggressive patent challenges model, it has acted as an authorized generic partner of innovator companies and has opted for out-of-court settlements.

1.4 Conclusion -

DRL has increased its R&D expenditure quite substantially in response to the TRIPS regime and it became one of those companies with a highest R&D investment amongst the Indian pharmaceutical companies. But due to several setbacks suffered by the company because of the ‘high-risk-high-gain’ growth strategy adopted by it, DRL has re-worked its strategy and has opted for a collaborative R&D

model reducing its investments and risks.

Business strategy- With the reintroduction of product patents, leading Indian pharmaceutical majors are altering their business strategies by placing greater focus on R&D and the discovery of new chemical entities.Because of the introduction of the product patent regime, three strategic choices had become available to the Indian pharmaceutical companies-

i. to compete,

ii. to collaborate

iii. to follow a combination of Competitive & Collaborative strategies.

Indian pharmaceutical companies are pursuing different strategies depending on their individual resource mix and core competencies. DRL has adopted a combination of 'compete & cooperate' strategy to combat the competitive pressures faced by the generic industry as well as to capture research-based high-end markets.

DRL is seen competing in the areas of Speciality generics, NCEs and Patenting. Drug discovery research has been pursued intensely as an competitive strategy in the post 2005 era. However the company's performance in the last three years, since 2008 has been on a decline and its profitability has also shown major downfall. Consequently, the company has re-worked its strategies.

The company has collaborated to carry out Contract research which includes drug discovery and pre-clinical as well as clinical research. It has opted for a collaborative R&D model reducing its investments and risks. It has also tied up with innovator companies in both US and non-US markets. Quite in contrast to its aggressive patent challenges model, it has acted as an authorized generic partner of innovator companies and has opted for out-of-court settlements.

FUTURE OUTLOOK-

The Generics market looks promising in the near future with a number of molecules going off patent in the next couple of years.Through widespread implementation of robust systems and processes like QbD, DRL aims to synergise product quality, safety and compliance as the company continues to pursue its goal to attain first-mover advantage. DRL expect Biosimilars to hold center-stage in the coming years and thinks its expertise in pharmacovigilance will be put to test.DRL is also determined to restrict the proliferation of counterfeit medicines and will continue to invest in innovative packaging techniques.

Collaboration and symbiotic relationships are at the heart of sustainability. Collaborative approaches such as their strategic alliance with GlaxoSmithKline (GSK) to supply over 100 branded drugs; the division; and the in-licensing deal with Russia's R-Pharm, will help synergistically leverage existing assets and raise the sustainability quotient for both –for DRL and its collaborators.

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Monetary Approach to Exchange Rate Determination for India

Satish Kumar and Ritesh Tiwari

ABSTRACT

The purpose of this paper is to apply the monetary model approach to exchange rate determination for the Indian rupee against the US dollar. The real effective exchange rate behavior has been studied during January 2000 to June 2006. Prices, real income, money supply and interest differential are the explanatory variables. Using the multiple regression analysis, the monetary model is found to be applicable in case of India as all the coefficients have expected signs, with two of the coefficients being significant. It has been found that increase in money supply leads to rupee depreciation against US dollar. Further the real income is having a negative relationship with exchange rate implying that an increase in the real income would cause the rupee to appreciate against the US dollar.

INTRODUCTION

Exchange rates play a major role in the export-import performance of a country. Since the inception of flexible exchange rate, forecasting and modeling the exchange rate has become one of the imperative issues in the area of international business. There are a number of factors that affect the exchange rate movements and based upon which several theoretical and mathematical models have been developed, but all of these operate in a conflicting manner because consistent prediction of exchange rate is impossible. However, over a period of time, monetary approach to exchange rate determination has emerged to be major model to predict exchange rate, though not fully successful at times. According to this model, if there is a rise in price levels (CPI) in a country, it leads to the depreciation of the currency of that country, i.e., PPP holds good. Since, exchange rate is the price of one currency in terms of the other, it becomes important here to find and analyze the determinant of that price in terms of the demand of two monies.

The purpose of this paper is to study the well known monetary approach to real effective exchange rate determination for Indian rupee in terms of US dollar. This model is based upon the purchasing power parity (PPP), interest rate parity and the money demand function. The PPP assumes that the nominal exchange rate is a function of the relative prices in two countries. As per the interest rate hypothesis, the exchange rate is determined by the interest rate differential in the two countries. The money demand functions for the two countries are assumed to be stable so that we can derive stable exchange rate equation.

Motivation for the Study

According to the RBI statistics, the INR/USD exchange rate has fluctuated and showed trend in the long-run from a minimum of Rs.39.322/$ to a maximum of Rs.50.945/$ from January 2000 to December 2009. The currency recently has been appreciating gradually over past few months. The study of exchange rate is important for many reasons. It is clear to all that exchange rate stability is essential in the international markets. Rapid appreciation of rupees would cause harm to exporters while its rapid depreciation would be harmful for importers. And also, the currency

depreciation will lead to decrease in real wealth of assets and problems for foreign repayment of debt. Hence it is very much significant to study the behavior of exchange rate in international markets.

This paper is divided in following sections: Section 1 provides a literature review of the exchange rate models; Section 2 presents data and methodology used in this study; Section 3 deals with the empirical results and discussion and finally Section 4 concludes the paper.

1. Literature Review

There have been a number of studies performed to analyze the determinants of exchange rate which have used monetary approach. The results produced in all the cases have been very conflicting. Bilson (1978) gives strong support to the monetary model of exchange rate determination. Conducting the study on the DM and pound sterling, he was able to account for 99% of the variation in the exchange rate through monetary model. He and Sharma (1997) validated the monetary model for the long-run determination of exchange rate. Similarly Tawadros (2001) studied the predictive power of monetary model to exchange rate determination and established a single long-run relationship between the exchange rate, money supplies, industrial output and short-term interest rates. Hence, monetary approach may be interpreted as a long-run equilibrium condition with highly complex short-run dynamics [Papadopoulo and Zis (2000)]. Further, Tullio (1995) established that the monetary approach to exchange rate determination was applicable in long-run and deviated from the PPP in the short-run.

Similarly, Makrydakis (1998) found that monetary model can account for as a valid framework for the long-run movement in exchange rates in its unrestricted version. The same is supported by Chin, Azali and Matthews (2007) in case of Malaysia. They provide through cointegration results that there exists a long-run relationship between the variables of monetary model and the exchange rate. The same study is extended in case of Philippines by Chin, Azali, Yusop and Yusoff (2007) and established a long-run relationship between monetary model variables and the exchange rate.

Karfakis (2003) studied the monetary model of exchange rate determination when there was a condition of Romanian hyperinflation. He validates the monetary approach and concludes that the rapid increase in money supply and high inflation caused the lei (Romanian currency) depreciate, and at the same time, an increase in the real income leads to the home currency appreciation. Petrovic and Mladenovic (2000) supported a modified monetary model of exchange rate determination where, during the hyperinflation, the exchange was determined directly in the money market without considering the prices. The monetary model thus applies in the long run equilibrium conditions. As in words of Diamandis and Kouretas (1996):

"In particular, we show that by treating the monetary model in its long-run equilibrium form and accounting for non-stationarities, a monetary-type exchange rate equation can be found that explains the long-run economic behavior of exchange rates."

As per the standard economic models, the differences in the level of macroeconomic variables account for the exchange rate determination. Mark (2009) contradicted this determination of exchange rate through macroeconomic variables like domestic and foreign prices, money supply and income, and instead, put forwards arguments in favor of Taylor's rule which states that the real exchange rate is determined by the expected inflation and the output or unemployment gap of the home and foreign country. He supports his findings by showing that the DM-dollar exchange rates are related to Taylor rule fundamentals. Further, Moosa (1994) strongly puts an evidence forward for the cointegration between the nominal exchange rate and the vectors of explanatory variables in the monetary model and they concluded that the monetary model can be a valid model in the long-run behavior of exchange rate.

Moosa (2007-08) attempted to differentiate and analyze the neoclassical and Post Keynesian approaches to exchange rate determination with the former approach being represented by the flexible price monetary model and latter by a version of the

flow model that considers psychology and creates a bandwagon effect. He has taken the data for four different currencies and concluded that the Post Keynesian approach to exchange rate determination was superior.

Still there are studies that verify that the monetary approach is not an appropriate method for exchange rate determination. Dutt and Ghosh (2000) find that monetary approach does not provide a long-run model of equilibrium exchange rate. Caves and Feige (1980) presented a bivariate model of exchange rate determination in order to incorporate the major features of the simple model of monetary approach to exchange rate determination. They provided that the monetary model is completely inoperative towards the exchange rate determination. Nieh and Wang (2005) also rules out the long-run relationship between the exchange rate and the major macroeconomic factors.

So other than monetary approach, the forward rate can also be used as a predictor of the future spot exchange rate. But due to inefficiency of the market as a result of friction, forward rate is performing as a poor estimate of the exchange rate. So the need was felt for some other approaches that could account for the exchange determination. One such approach is that the exchange rates can be treated as prices of foreign currency assets. And these prices are supposed to be highly sensitive to new information arriving in the market. Hence Newby (2002) considered news variables in the form of unanticipated changes in the money supply, income and interest rates of the home country and the U.S. he has taken four countries viz. Japan, Italy, Germany and Canada and found that news does not play a significant role in influencing the exchange rate.

If we can combine the effects of news announcement along with money supply, we get some different results. Bask (2009) shows that when technical analysis is present with the money supply, the exchange rate will be much more sensitive to money supply than it would be in the absence of technical analysis. To check for the effects of information heterogeneity on the exchange rate determination, Bachhetta and Wincoop (2006) found that in the short-run, most of the volatility in the exchange rate is related to order flows only and not to the macroeconomic variables. But over the long-run, exchange rate variation can be explained through the observed fundamentals. Further, the information which is publicly and simultaneously available to all the participants in the market is reflected partially in the prices through the order-flow (Love and Payne (2008)). Hoffmann and Schlagenhau (1985) evaluated the spot exchange rate models using a news framework and judged them on the basis of some unanticipated changes in the explanatory variables that determine the spot exchange rate. They later concluded that this kind of model is applicable only in case of market efficiency.

Love and Chandra (2007) established a long-term relationship between the black and official exchange rates. Further, their study also estimates the long-run elasticity of the official exchange rate with respect to the black market rate. Their study basically implies that there is a mismatch between the percentage change in the black and official market exchange rate.

Keeping all this discussion of effect of monetary policy on the exchange rate determination, can we say anything about the effect of monetary policy on the exchange rate when actually there are no major policy changes? Fatum and Scholnick (2006) analyzed more than 12 years of daily exchange rate data and found out that there is a significant and systematic relationship between exchange rate and expected future monetary policy when actually there is no change in the monetary policy. From here, it concludes that monetary policy determines exchange rate in more ways rather than infrequent actual changes.

We might expect that the impact of monetary policies on the exchange rate can be different under different exchange rate regimes. As in the flexible or free-floating exchange regime, exchange rate will be showing more natural impact of monetary policy on the exchange rate determination as compared to the fixed or managed float. As far as the simple monetary model is concerned, Lee (2007) showed that the impact of monetary fundamentals under both the exchange rate regimes when OLS is applied, but the

difference become statistically significant when GARCH (1, 1) is used. Further, the size of the exchange rate shock is bigger under the free floating as compared to the managed float. Rodriguez (1980) showed that the difference between the spot exchange rate and its long-run equilibrium value is related to trade-balance surplus. He provides some empirical evidences in favor of the fact that a trade-balance surplus country would be having an undervalued currency.

Thus till now we have observed that there are some studies which validate the monetary model to exchange rate determination and some studies that have the opposite argument and still some other studies that take the neutral stand. But the results presented in the current experience of the floating exchange rate regime supports the monetary approach to exchange determination and it may therefore be worth considering its reintroduction as a useful approach to exchange rate determination (Macdonald (1984)).

2. Data And Methodology

2.1. Data

The purpose of the present study is to apply the monetary approach to the real effective exchange rate determination in the Indian context relative to the US currency.

Monthly data has been collected for all the variables from January 2000 to June 2006. The data for all the Indian variables has been taken from the official website of RBI (Reserve Bank of India) while the data US variables has been taken from the Federal Reserve except for the consumer price index which has been taken from the Bureau of Labor Statistics. The data for exchange rate has been taken in the form of REER as the results with the nominal exchange rate were not coming out to be convincing. For the Indian consumer price index, the data was available in two base years, i.e. with a base year of 1982 (CPI=100) upto January 2006 and with a base year of 2001 (CPI=100) from January 2006 onwards. As the period under consideration is from January 2000 to June 2006, so whole the data has been converted to the base year of 2001 using the splicing technique. The base year for US CPI is 1982-1984 which has again been converted into the base year 2001 so as to bring the CPI for both the countries on the same platform. The real income for both the countries has been proxied by the IIP (Index of Industrial production) for which the base year for US is 2002 while for India it is 1993-1994. Hence, the base year for India has been converted to 2002. As GDP would have been a better proxy for real income, but the data for GDP is available only on quarterly basis, which if had been taken, would have reduced the data points, hence proxied by IIP. For money supply, M3 is taken in case of India and M2 has been taken in case of US. As far as the interest differential between the two countries is concerned, it has been proxied by the one month forward premia, data for which has been taken from RBI again.

2.2. Methodology

As per this theory, if there is a rise in price levels (CPI) in a country, it leads to the depreciation of the currency of that country, i.e., PPP holds good. This theory also states that increase in the real money demand (Y) leads to currency appreciation. Further, increase in the nominal rate of interest (i) makes that country's currency depreciate as per the Bilson model. This is so because as a result of an increase in the interest rate of the home country as compared to the foreign country, the demand for the home currency would decline. But as per the Dornbusch model, if the interest rate in the home country is higher in comparison to the foreign currency, it would lead to the appreciation of the home currency because of higher capital inflows due to increased demand for rupees. And finally, if there is an increase in the money supply (M), the currency would depreciate. So keeping all these assumptions in mind, following model has been suggested which assumes that the purchasing power hypothesis holds i.e. money demand functions are stable for both the countries and the uncovered interest rate parity condition also exists:

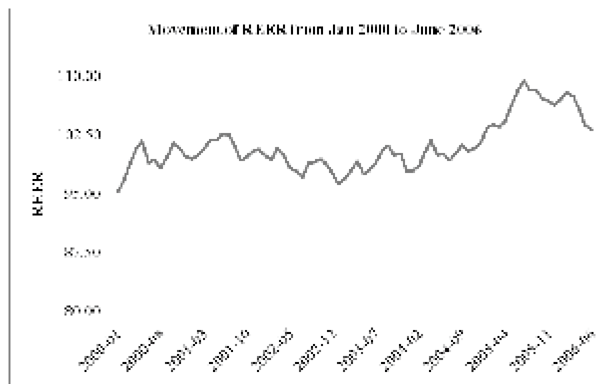
$$s_t = \beta_0 + \beta_1 (p_t - p^*_t) + \beta_2 (y_t - y^*_t) + \beta_3 (m_t - m^*_t) + \beta_4 (r_t - r^*_t) + \mu_t$$

Here s_t is the spot exchange rate (taken as REER) at time t; m_t is the domestic money supply [(M3) in case of India, (M2) for US]; y_t is the domestic real income (which has been proxied by the industrial index of production); r_t is the domestic interest rate and finally p_t is domestic prices (defined as Consumer Price Index), β_0 is the constant (intercept) and μ_t is the error term, while the asterisk sign shows the corresponding variables for the foreign country i.e. US. Forward premia has been taken as a proxy for the interest differential of both the countries i.e. r_t - r_t[(Bilson 1978)]. All the variables except for the interest differential have been expressed in the terms of natural logarithms.

As explained above, the coefficient of money supply β_3 is expected to be of positive sign, similarly, coefficient for prices β_1 is also supposed to be of positive sign. The coefficient for real income β_2 is expected to carry a negative sign while the coefficient for interest differential β_4 can be either positive or negative, as explained above. The Figure 1 below shows the movement of REER from January 2000 to June 2006.

3. Results

The data described above was not found to be stationary i.e. unit root exists in the data when ADF (Augmented Dicky Fuller) test was conducted. Table 1 below shows the results for the ADF test. In ADF test we have the null-hypothesis that the series is non-stationary. If the unit root tests shows the rejection of null-hypothesis, we can say that the series is stationary. We have made the series stationary for all the variables by taking the first difference, which is shown below in the Table 1.



The t-statistics are significant at 1% level of significance, showing that series has become significant by taking the first difference.

Table 1. Augmented Dickey –Fuller Unit Root Tests

Series	Level	First Difference
s	-1.706	-4.456**
*p-p**	-2.399	-3.693**
*y-y**	0.437	-5.627**
*m-m**	-1.055	-4.086**
*r-r**	-2.989*	-6.899**

Note:

Figures are the t-statistics for testing the null hypothesis that the series is nonstationary.

* shows significant at 5% level.

** shows significance at 1% level.

After the series was made stationary, the equation (1) was estimated and the results are presented in the Table 2. Table 2 shows the estimated regressions for the real effective exchange rate for India. In the table, we can see that all the coefficients are coming out to be as having the expected signs. The coefficients for money supply β_3 and that of real income β_2 are significant at 1% level of significance. The positive sign for β_3 implies that when there is relative increase in the money supply in India, rupee will depreciate against dollar which is in accordance with the theory. The coefficient value of 0.314 signifies that when the relative money supply is increased by 1%, rupee will depreciate by almost 0.314%, provided all other explanatory variables are held constant. Further, the negative coefficient for real income signifies that as the relative real income increases, it leads to rupee appreciation against dollar because increase in the real income increases the demand for money which ultimately causes the currency to appreciate.

Table 2. Estimated Regressions of REER for India

[N = 96, R^2 = 0.312, F = 8.18*, DW = 2.027]

Details	Coefficients	t-Statistic	VIF
β_0	-0.002	-0.803	
β_1	0.077	0.431	1.083
β_2	-0.091	-3.110*	1.117
β_3	0.314	4.736*	1.083
β_4	-0.000	-0.554	1.115

Note:

N is number of observations; DW is Durbin Watson statistic

VIF is Variance Inflation Factor ; * Significant at 1%.

REER is Real Effective Exchange Rate.

Also it is shown that with a 1% rise in relative real income, the rupee will appreciate by 0.091%, keeping all other variables constant. Further the positive sign for coefficient of prices comes out to be positive but not significant. As far as the sign for the coefficient for the interest differential is concerned, it is negative but insignificant which is consistent with the Dornbusch model (which says that increase in interest rates causes the currency to appreciate). The DW is the Durbon-Watson statistics which shows that there is no autocorrelation in the data set. For the absence of autocorrelation, DW value should be as close to 2 (two) as possible. Further, we have shown the measure for VIF (Variance Inflation Factor) which is suggesting that the data set is free from the problem of multicollinearity as all the values are closer to one. All these results clearly indicate that the monetary approach to exchange rate determination is applicable in the Indian context for the given time-period.

Further, the results for all the coefficients of regression adjusted for heteroscedasticity are shown in the Table 3 below.

The Newey-West test has been used to yield consistent estimates for the standard error and covariance when heteroscedasticity is uncertain. The Table 3 shows no differences in the coefficients of the variables estimated, the results are more or less the same. The results are showing consistent estimates for all the coefficients because heteroscedasticity and autocorrelation has been addressed.

4. Conclusion

The purpose of this paper is to apply the monetary model approach to exchange rate determination in Indian context. Using the data period from January 2000 to June 2006, the real effective exchange rate behavior has been studied during this time period. The monetary model is found to be applicable in case of India as all the coefficients have expected signs, with two of the coefficients being significant. It has been found that increase in money supply leads to rupee depreciation against US dollar. The policy implication can be that the RBI (Reserve Bank of India) should monitor its monetary policy as excessive money supply can lead to rupee depreciation. Further he real income is having a negative relationship with exchange rate implying that an increase in the real income would cause the rupee to appreciate against the US dollar.

All the study has been done by keeping in mind the assumptions that the money demand function is stable; the purchasing power condition applies and the uncovered interest rate parity is also applicable.

Table 3. Estimated Regressions of the REER for India

(Newey-West Test Results)

[N = 96, R^2 = 0.312, F = 8.17*, DW = 2.025]

Details	Coefficients	t-Statistic
β_0	-0.002	-0.929
β_1	0.071	0.421
β_2	-0.091	-3.261*
β_3	0.314	4.455*
β_4	-0.001	-0.505

Note:

N is number of observations; DW is Durbin Watson statistic

VIF is Variance Inflation Factor; * Significant at 1%.

REER is Real Effective Exchange Rate.

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"Enhancing MSME Creditability: Performance & Credit Rating Scheme"

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ABSTRACT

Micro, Small and Medium Enterprises (MSMEs) play a key role in the growth of Indian economy by contributing 45% of Industrial output , 40% exports, create one million jobs every year and produces more than 8000 quality products for Indian as well as international market. Despite the strategic importance in overall industrialization, one of the major challenges faced by MSMEs is inadequate access to finance due to lack of financial information and non-formal business practices. To overcome this problem the Ministry of Micro Small & Medium enterprises has formulated the "Performance & credit rating Scheme" for small enterprises and National Small Industries Corporation Limited (NSIC) as its nodal agency is operating the scheme through accredited rating agencies i.e. CARE, CRISIL, D&B, FITCH, ICRA, ONICRA and SMERA. Ratings have the potential to transform the way SMEs are integrated into the financial system. Further, SMEs can use ratings to enhance their credibility with other counterparties too, such as technology providers, suppliers, and customers.

This paper attempts to evaluate MSMEs rating scheme proposition. It also highlights the reasons why MSMEs should get themselves rated? The opportunities and the problems faced by MSME's to get rated by these rating agencies. The paper concludes with the positive impact that this scheme will leave on the performance of the MSME's.

Key Words: *Micro, Small and Medium Enterprises, Performance & credit rating Scheme, National Small Industries Corporation Limited*

INTRODUCTION

Micro, Small and Medium enterprises (MSMEs) play a key role in the growth of Indian economy by contributing 45% of Industrial output , 40% exports, creating one million jobs every year and produces more than 8000 quality products for Indian as well as international market. This sector has emerged as a major supplier of mass consumption goods as well as producer of electronic and electrical equipment and drugs and pharmaceuticals. Despite its commendable contribution to the Nation's economy, MSME Sector does not get the required support from the concerned Government Departments, Banks, Financial Institutions and Corporate. With focus of growth now being on inclusive growth, the role of this sector in India's socio economic development also needs to be ascertained appropriately. To address the impediments for the sector's growth, GOI has initiated various steps and schemes. Adequate credit flow being one of the bottlenecks, credit rating assists in rationalized lending decisions through proper analysis of the credit risk. Gradually, the coverage of MSMEs for credit rating is expected to increase.

1.1 MSMEs in India

In accordance with the provision of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006 the Micro, Small and Medium Enterprises (MSME) are classified in two Classes as shown in Table 1.1:

As per this theory, if there is a rise in price levels (CPI) in a country, it leads to the depreciation of the currency of that country, i.e., PPP holds good. This theory also states that increase in the real money demand (Y) leads to currency appreciation. Further, increase in the nominal rate of interest (i) makes that

country's currency depreciate as per the Bilson model. This is so because as a result of an increase in the interest rate of the home country as compared to the foreign country, the demand for the home currency would decline. But as per the Dornbusch model, if the interest rate in the home country is higher in comparison to the foreign currency, it would lead to the appreciation of the home currency because of higher capital inflows due to increased demand for rupees. And finally, if there is an increase in the money supply (M), the currency would depreciate. So keeping all these assumptions in mind, following model has been suggested which assumes that the purchasing power hypothesis holds i.e. money demand functions are stable for both the countries and the uncovered interest rate parity condition also exists:

Manufacturing Sector	
Enterprises	Investment in plant & machinery
Micro Enterprises	Does not exceed 25 lakh rupees
Small Enterprises	More than 25 lakh rupees but does not exceed 5 crore rupees
Medium Enterprises	More than 5crore rupees but does not exceed 10 crore rupees
Service Sector	
Enterprises	Investment in equipments
Micro Enterprises	Does not exceed 10 lakh rupees:
Small Enterprises	More than 10 lakh rupees but does not exceed 2 crore rupees
Medium Enterprises	More than 2 crore rupees but does not exceed 5 core rupees

Source:http://www.dcmsme.gov.in/ssiindia/defi nation_msme.

(a) Manufacturing Enterprises- The enterprises engaged in the manufacture or production of goods pertaining to any industry specified in the first schedule to the industries (Development and regulation) Act, 1951). The Manufacturing Enterprise are defined in terms of investment in Plant & Machinery.

(b) Service Enterprises: The enterprises engaged in providing or rendering of services and are defined in terms of investment in equipment.

2. Challenges faced by MSME's:

(i) Lack of Visibility: Due to low scale of operation these organizations are like small fish in a big pond. They operate at a very meager scale as compared to the large corporate houses and thus go unnoticed by traditional customers and financers.

(ii) Low credit penetration: Inspite of Governments continuous budget allocation for these MSME's, actual credit flow to them is very less compared to the demand.

(iii) Lack of timely credit: Even if they are being provided with credit the timely availability of the loan facility is doubtful.

(iv) High cost of credit: Since traditional sources of finance hesitate to provide funds to MSME's, they often have to resort to non-traditional /contemporary sources of finance which provide credit to these organizations at a comparatively higher rate of interest.

(v) Unable to tap equity markets: Due to small operating scale their performance compared to big competitors in the same industry is very negligible and thus they find themselves unable to tap equity market.

(vi) Lack of transparency: since this sector is vey unstructured, obviously the methods of

maintaining accounts is also unstructured. They often hesitate to disclose the true financial position to stake holders and thus lack transparency.

3. Credit Rating in India:

Credit is important since individuals and corporations with poor credit will have difficulty finding finance, and will most likely have to pay more due to the risk of default. To avoid this, business houses now-a days get themselves scaled on the credit score provided by credit rating agencies. Credit rating is an assessment of the credit worthiness of individuals and corporations. It is based upon the history of borrowing and repayment, as well as the availability of assets and extent of liabilities. It signifies the rating agency's opinion on the likelihood of a rated debt obligation being repaid in full and on time. There are various types of ratings viz. Issuer Rating/ Obligor Rating, Bank loan Rating, Issue based Ratings, Project Rating etc. Based on type of borrower/issuer, Ratings can be classified as Individual Rating, Corporate Rating, Bank/Financial Institutions Rating, MSME Rating, MFI Rating etc. It is done by a third party credit evaluator and reflects organizations capability of debt management. Rating is arrived after considering various financial, non-financial parameters, past credit history and future outlook with respect to economy and the sector in which the company is operating or would like to operate. Simple alphanumeric symbol are used to convey a credit rating.

Need of a Performance and Credit Rating Mechanism for SSI's was highlighted in Union Budget 04-05. National Small Industries Corporation (NSIC) was been appointed as the nodal agency to enable SME's rated through empanelled agencies.

Indian credit rating industry mainly comprises of CRISIL, ICRA, CARE, ONICRA, FITCH & SMERA. CRISIL is the largest credit rating agency in India, with a market share of greater than 60%. It is a full service rating agency offering its services in manufacturing, service, financial and SME sectors. SMERA is the rating agency exclusively established for rating of SMEs. Based on their assessment and understanding credit ratings have developed rating methodology framework which mainly address issues like industry risk, business risk, management risk, financial risk and new projects risk.

3.1 Credit ratings for the MSME

Credit ratings for MSME are generally segregated over three product offerings:

(i) SME rating: The SME Rating assigned by CARE is an issuer specific, one time assessment of the credit risk of the rated entity in comparison with credit risk of other SMEs. The rating incorporates credit risk over a one year horizon and is a reflection of the overall debt management capability of the entity without any differentiation amongst various credit facilities availed by the SME unit. The rating may be reviewed in case of developments of substantial importance regarding the entity or its environment. This rating is applicable to all types of business enterprises, viz., public / private limited companies, partnership / sole proprietorship firms, co-operative societies etc.

(ii) SSI ratings through NSIC: National Small Industries Corporation (NSIC) introduced the Performance and Credit Rating Scheme in 2005. Under this scheme, the government thru NSIC subsidized rating fees to the tune of 75%. D&B and other agencies were empanelled under this scheme to rate SSIs. Under the scheme over 12,500 ratings have been completed since inception of which D&B India alone has carried out about 50%. All registered SSI's are eligible.

(iii) Bank facility ratings: With the BASEL II guidelines in place and credit rating being one of the requirements for all bank exposures above Rs. 10 crore, large number of MSMEs have come under the purview of credit rating. However, because of the fact that the Reserve Bank of India (RBI) guidelines for Basel-II framework for banks recognize the long term (AAA to D) and short term (PR1+ to PR5) instrument rating scales of recognized rating agencies such as

CARE, large number of SMEs have been rated on that scale.

4. National Small Industries Corporation Limited : As a Nodal Agency:

The National Small Industries Corporation Limited (NSIC), was established in the year 1955 by the Government of India with a view to promote, aid and foster the growth of Small Industries in the country. NSIC continues to promote Industrial development throughout the nation with its various programmes and projects to assist the small scale sector. When in 2004-05 the union budget emphasized on creating a credit rating programme for SSI's, "Performance & Credit rating Scheme" came into existence. NSIC was appointed as the nodal agency to enable the SSI firms to get rated by leading agencies like, CRISIL, ICRA, CARE, SMERA, Fitch, Dun & Bradstreet.

4.1 Basic features of the scheme :

- SME units can select any of the rating agencies empanelled under the rating scheme with NSIC.
- The validity of a rating shall be for a period of one year from the date of issue of the rating letter.
- The rating agencies have different fee structures for their rating of various clients including small-scale units. The rating agencies will devise their fee structure for SSI units under this scheme separately.
- Although, the rating fee of different rating agencies may vary, but for the purpose of subsidizing the fee, a ceiling has been prescribed by the Government.
- The small-scale units will have to pay their contribution towards the rating fee along with its application.
- In the event of the request for rating being treated as closed by the rating agency due to non-receipt of the complete information, 50% of the fees received from the SSI unit shall be refunded by the rating agency. However, if the SSI unit backs out from the rating process after the rating agency has carried out its inspection, no amount shall be refunded back.
- The fee to be paid to the rating agencies shall be based on the turnover of the small-scale units which has been categorised into three slabs. The slabs of the turnover and the share of the Ministry of SSI towards the fee charged by the rating agency are indicated in Table 1.2

Turnover Fees per Evaluation Units Pay 25%

Upto Rs. 50 lacs Rs. 30,000/- Rs. 7,500/-

Rs 50 lacs – Rs 200 lacs Rs. 36,000/- Rs. 9,000/-

Above Rs 200 lacs Rs. 48,000/- Rs. 12,000/-

Turnover	Fees per Evaluation	Units Pay 25%
Upto Rs. 50 lacs	Rs. 30,000/-	Rs. 7,500/-
Rs 50 lacs Rs 200 lacs	Rs. 36,000/-	Rs. 9,000/-
Above Rs 200 lacs	Rs. 48,000/-	Rs. 12,000/-

Source: D&B presentation Third Tri-nations Summit for Small Business Development, 2008

- The rating to be awarded by each of the rating agencies shall be prefixed by the word NSIC. Thus rating awarded by, say, ICRA shall be termed as 'NSIC-ICRA Performance and Credit Rating'.
- NSIC also gives concession in rate of interest for units rated under the Performance and Credit Rating scheme.
- To avail the benefits under NSIC Performance & Credit Rating all SSI's must be registered. A 15 point grade scale has been developed indicating performance capability and financial strength of the SSI's (refer Table 1.3).

Table1.3 NSIC's rating Scale

Rating Matrix		**Financial Strength**		
		High	**Moderate**	**Low**
Performance Capability	**Highest**	SE 1A	SE 1B	SE 1C
	High	SE 2A	SE 2B	SE 2C
	Moderate	SE 3A	SE 3B	SE 3C
	Weak	SE 4A	SE 4B	SE 4C
	Poor	SE 5A	SE 5B	SE 5C

Source: http://www.crisil.com/ratings/nsic-rating-scale.html

5. Credit Rating Agencies in India:

The various credit rating agencies in India that rate MSME's are as follows:

(i) Small and Medium Enterprises Rating Agency (SMERA)

SMERA a joint initiative by SIDBI, Dun & Bradstreet Information Services India Private Limited (D&B) and several leading banks in the country. D&B India has consolidated its MSME ratings with that of SMERA, a rating agency jointly promoted by D&B India solely for rating MSMEs.The new rating is called NSIC – D&B – SMERA ratings. SMERA is the country's first Rating agency that focuses primarily on the Indian MSME segment. SMERA has completed 7000 rating. It rates MSME's in eight scales from highest rating appraisal indicator to lowest rating indicator refer Table 1.4.

Table 1.4 SMERA's rating scale

SMERA Rating	Rating Appraisal Indicator
MSME 1	**Highest**
MSME 2	**High**
MSME 3	**Above Average**
MSME 4	**Average**
MSME 5	**Below Average**
MSME 6	**Inadequate**
MSME 7	**Low**
MSME 8	**Lowest**

Source: : http://www.smera.com/ratings/nsic-rating-scale.html

(ii) CRISIL

CRISIL is the largest credit rating agency in India established in 1987. The world's largest rating agency Standard & Poors' now holds majority stake in CRISIL. Till date it has rated more than 5178 SMEs across India and has issued more than 10,000 SME ratings. It rates SME's from Highest performer to defaulter, refer Table 1.5.

Table 1.5 CRISIL's rating Scale

CRISIL SME Rating	Definition
SME 1	Highest
SME 2	High
SME 3	Above Average
SME 4	Average
SME 5	Below Average
SME 6	Inadequate
SME 7	Poor
SME 8	Default

Source: Source: http://www.crisil.com/ratings/nsic-rating-scale.html

(iii) ONICRA:

ONICRA was established in 1993. It analyzes data and provides rating solutions for Individuals and Small and Medium Enterprises (SMEs). ONICRA has an widespread experience in various business processes areas such as Finance, Accounting, Back-end Management, Application Processing, Analytics, and Customer Relations. It has rated more than 2500 SMEs. It rates SME's on a scale of 15 point with performance capability and financial strength as two major parameters, refer Table 1.6.

(iv) CARE:

Incorporated in 1993 Credit Analysis & Research Limited (CARE) is a credit rating, information and advisory services company promoted by IDBI, Canara Bank and UTI & other leading banks and Financial service companies. CARE has defined rating for SME's on a scale of eight from Highest credit quality with negligible risk to lowest credit quality with highest risk refer Table 1.7.

Table: 1.6 ONICRA's rating scale:

Rating Scale

Performance capability	Financial Strength		
	High	Moderate	Low
Highest	SE 1A	SE 1B	SE 1C
High	SE 2A	SE 2B	SE 2C
Moderate	SE 3A	SE 3B	SE 3C
Weak	SE 4A	SE 4B	SE 4C
Poor	SE 5A	SE 5B	SE 5C

Source: http://www.onicra.com/MSMER/rating-scale.aspx

Table 1.7 CARE's rating scale:

CARE SME rating	Definition
CARE SME 1	Highest credit quality with negligible risk
CARE SME 2	Highest credit quality with low risk
CARE SME 3	Above average credit quality with low credit risk
CARE SME 4	Above average credit quality risk with average credit risk
CARE SME 5	Below Average credit quality with above average credit risk
CARE SME 6	Low credit quality with high credit risk
CARE SME 7	Very poor credit quality with very high credit risk
CARE SME 8	Lowest credit quality risk with highest credit risk

Source:http://www.msmestartupkit.com/sites/default/files/knowledge_base/care_smebochure0001.pdf

(v) ICRA:

ICRA Limited was set up in 1991 by leading financial/investment institutions, commercial banks and financial services companies as an independent and professional Investment Information and Credit Rating Agency. The international Credit Rating Agency Moody's Investors Service is ICRA's largest shareholder. Today, ICRA and its subsidiaries together form the ICRA Group of Companies (Group ICRA). ICRA Limited along with National Small Industries Corporation Limited (NSIC) has launched a Performance and Credit Rating Scheme for SSIs in India on a special Rating Scale, using criteria tailored for the small-scale sector , ratings as per Table 1.8.

Table 1.8 ICRA SME Rating Scale

ICRA SME 1	The highest-credit-quality rating assigned by ICRA to an SME.
ICRA SME 2	The high-credit-quality rating assigned by ICRA to an SME
ICRA SME 3	The adequate-credit-quality rating assigned by ICRA to an SME
ICRA SME 4	The moderate-credit-quality rating assigned by ICRA to an SME.
ICRA SME 5	The inadequate-credit-quality rating assigned by ICRA to an SME.
ICRA SME 6	The risk-prone-credit-quality rating assigned by ICRA to an SME
ICRA SME 7	The poor-credit-quality rating assigned by ICRA to an SME
ICRA SME 8	The lowest-credit-quality rating assigned by ICRA to an SME.

Source: http://www.icra.in/files/pdf/sme%20ratings/SSIBrochure.pdf

6. Credit Rating Process:

Generally the entire process starting from information receipt to assignment of rating takes two to four weeks. An emblematic rating process comprises of following steps:

(i) Request for Rating by MSME

(ii) Submission of Financial and Managerial Information

(iii) Finalizing the Assignment and Detailed Questionnaire

(iv) Site Visit and Discussion with Management

(v) In-Depth Analysis, Industry Research and Draft Report

(vi) Proposed Rating before Rating Committee

(vii) MSME Advised on Rating

(viii) Appeal before Rating Committee

(ix) Publishing of Final Rating

6.1 Documents Needed to Obtain a Rating:

(i) SSI registration certificate/Entrepreneur's memorandum

(ii) Memorandum & Article of Association

(iii) Audited accounts of last three years

(iv) Project report containing project profile, cost of project, financing structure (For new projects only)

(v) Details of insurance for plant, machinery etc.

(vi) Details of product line, technical & distribution/marketing collaboration (if any), end user segment, order in hand etc.

(vii) Details about plant set up, equipment / machinery, scheduling etc

(viii) Tax concession, subsidy available (if any)

(ix) Nature of advance & security provided, in relation to the loan/credit facility available from banks

(x) Quality certification, any award won, export details

(xi) Bankers report indicating details of transaction between MSME & bank (confidential)

7. Usage & Validity of a Rating:

Ratings assigned to MSME's are typically valid for one year from the date of issue, subject to there are no significant changes/events occurring during that period which could materially affect the business and financial parameters of the organization / project. SSI's are generally required to renew their ratings on a yearly basis.

The assigned ratings can be used for the following purposes:

- Submitting to the bank, lender, and financial institution for establishing credit worthiness
- In negotiating collateral requirement, terms of loan and interest rate.
- Establishing credibility in the eyes of buyers, suppliers, technical collaborators, JV partners
- To identify the strengths/weakness of company and areas of improvement
- To identify the best practices prevailing in the industry
- Establishing contacts with foreign business partners.

8. Misconceptions about MSME Ratings

Myth 1: Lenders and banks often rate MSMEs low due to their small size and non-standardized procedures.

Reality: As per CRISIL data, there has been a healthy number of companies with considerable business strength underpinned by the leadership of first generation entrepreneurs who had built strong brands and demonstrated the ability to withstand competition, including from large global players. They have got high ratings and are able to obtain finance at concessional rates.

Myth 2: MSMEs do not typically provide credible financial and non financial business information.

Reality: MSMEs perceive tangible benefits from obtaining ratings and are hence willing to provide the required information. In addition, there is a sizable number of MSMEs who have transactions with large domestic and foreign players and have a history of maintaining high quality financial and business information. These SMEs often obtain high ratings.

Myth3: For MSMEs, a rating is just a tool for availing favorable terms from lenders.

Reality: The rating is a report card for MSME businesses indicating their strengths and their weaknesses. It helps the MSME identify its position vis-à-vis its competitors and its areas for improvement. Moreover, a rating does not automatically translate into a benefit. It is only a tool and its effectiveness depends, say, on how it is effectively utilized in its negotiations with business partners. It holds the potential to facilitate rich dividends.

Myth 4: Ratings obtained by an SME can replace the internal rating of the lending institutions

Reality: Ratings provided by agencies will not replace the internal ratings of lending institutions. Lending institutions arrive at a representative interest rate based on its internal ratings. Many MSME borrowers are un-aware of their internal ratings and if aware, they are ignorant of the basis of arriving at such ratings. An external rating from rating agencies would make the MSME borrower aware of his rating and the basis of arriving at rating from an external perspective, thus providing him

with a competitive advantage. This awareness could also enable the MSMEs to improve its internal rating and endeavor to enjoy better terms from the lender fraternity.

9. Benefits of Rating:

In contrast to the rating misconceptions, Credit rating provides following benefits to the lenders and the MSME's organization.

9.1 For lenders, MSME Rating would:

- Provide an objective, independent and reliable opinion on credit quality
- Serve as an additional input in the credit decision making process
- Assist in risk pricing and capital allocation
- Facilitate portfolio management and monitoring
- Availability of an independent evaluation of the strength and weaknesses of an SSI unit seeking credit and thereby enabling banks and financial institutions manage their credit risk

9.2 For the rated MSME, MSME Rating may help to:

- Improve the comfort level with prospective /existing lenders
- Negotiate better terms on the basis of the credit quality reflected by the Rating
- Reduce the time involved in obtaining loan approvals
- Project a better image to prospective/existing trade partners
- Carry out self-evaluation and take timely and corrective measures for improvement.
- Subsidized rating fee structure for SSIs
- Recognition in global trade

10. Challenges faced by MSME's for getting rated:

(i) Lack of ignorance & awareness: MSME's are not much aware about the benefits they will derive from the ratings and thus don't get themselves rated.

(ii) Getting transparent: To get themselves rated these MSME's need to operate transparently otherwise they are not eligible to be rated. But MSME's generally avoid these transparencies.

(iii) Organized structure: MSME's lack organized structure because of which they lack transparency. To get evaluated by rating agencies they need to get themselves registered. But since many MSME's are not registered nether they intend to they are not rated.

(iv) Dither to self-evaluation: Getting rated by agencies could be very beneficial for these organizations but in case they score very low on the scale of agencies it might add to their vulnerabilities. With this fear in mind they normally hesitate to get self evaluated.

Conclusion:

Ratings can provide the impetus in the matter of raising standards through better financial discipline, disclosure and governance practices. The rating exercise is very crucial in matters like taking up of big projects. In fact, the Indian financial system has now come to regard credit ratings as an integral part of the framework for credit and investment decisions regarding the enterprises big or small. The clear emphasis is there on the SSI as well as the SME sector. With the introduction of NSIC- Performance and Credit rating Scheme the challenges faced by MSME's like lack of Visibility, low credit penetration, lack of availability of adequate and timely credit; high cost of credit etc. will be minimized. The scheme will benefit both the lenders and the organizations who get themselves rated. Although there are certain myths that prevail about MSME's rating but ground realities of those myths have been discussed in the paper. If these rating facilities are taken seriously by the MSME's they will be sure to get themselves benefited in the long turn.

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Contribution of ITC e-Choupal Towards India's Dream of Inclusive Growth

Ritika Gauba

ABSTRACT

The Eleventh Five Year Plan says that a rapid and sustained poverty reduction and development requires inclusive growth that allows people to contribute to and benefit from economic growth..

Growth can be said to be inclusive when it provides

1) Opportunity of productive employment to people,
2) Capability to the people so as to exploit the opportunity of this employment,
3) Accessibility to the people to use this opportunity by developing their capabilities,
4) Securities to its people across all section of society for a permanent livelihood.

In order to make this dream of inclusive growth a reality we need initiative of not just the government but also the private sector. One such initiative was taken by the one of the largest corporations of India ITC in the year 2000 in the form of E-Choupal.

Under this business model farmers are treated as integral partners of the company and are provided with all necessary information about current local and global market prices and practices. Besides theoretical knowledge ITC also provides practical training and other products and services to the farmers in order to improve their productivity. Most importantly they are provided with a platform where they can sell their produce instantly without even paying for the transportation to ITC.

Thus ITC e-Ehopal model is definitely an example of inclusive growth as it is fulfilling all the basic criteria of inclusive growth i.e.

Providing them with an Opportunity to improve their Capability as a farmer, by making them Accessible to the latest market information, products and services and thus in turn providing them a Security of permanent livelihood.

Key Words- *ITC e-Choupal, Inclusive Growth, Opportunity, Capability, Accessibility & Security.*

Introduction

Indian economy has witnessed a strong and steady economic growth in the past two decades. However, this robust growth by passed the poor or marginalized groups, resulting in increasing inequality .Reducing this inequality has become a major concern for our countries policy makers, a concern that has generated interest in the concept of Inclusive Growth.

Inclusive Growth", which emphasizes that the economic opportunities created by growth should be available to all—particularly the poor—to the maximum possible extent continues to be the biggest challenge for our country as it concerns integrating 600 million people living in rural India and several millions living in urban slums, into the mainstream economy.

To face this challenge our government is not alone this time it had the support of many strong private sector companies one of them being the leading multinational company of India ITC.

ITC through its e Choupal initiative has created

several economic opportunities for the rural poor and has helped million of rural poor improve their living standards.

The Evolution of Inclusive Growth in India

India entered its Eleventh Five Year plan in the year 2007-08 with impressive economic growth of 8.7 % making India one of the fastest growing economies in the world. The main reason for such strong growth was attributed to strong domestic consumption and investment expenditure, and also to the positive contribution of net exports which increased from $18 billion in 1991 to $123 billion in 2007.

The household saving in India increased from Rs 4371 in 1971 to Rs 12, 61,332 in the year 2008-09 .The per capita income increased to Rs 40,129 in the year 2008 from Rs 8,019 in the year 1971. The industrial sector too had responded well to economic reforms and had shown that it is capable of competing in the global economy.

Perceptions about India among global investors had turned very favourable the proof of which are the ever increasing forex reserves which have surged from $5.8 billion in 1991 to $123 billion in 2007.

India which is also called a country with two economies, on one side has shining India and on the other side has suffering Bharat and to India's dismay this gap between the shining and suffering is increasing day by day. For instance the percentage of the population below the official poverty line has come down from 36% in 1993–94 to 28% in 2004–05 . However, not only is this still high, the rate of decline in poverty has not accelerated along with the growth in GDP, and the incidence of poverty among certain marginalized groups, for example the Schedule Tribes, has hardly declined at all. Because population has also grown, the absolute number of poor people has declined only marginally from 320 million in 1993–94 to 302 million in 2004–05. This performance is all the more disappointing since the poverty line on which the estimate of the poor is based is the same as it was in 1973–74 when per capita incomes was much lower. Similarly while the literacy rate has gone up from 18.3% in 1951 to 64.8% in 2001, the number of illiterate persons still exceeds 304 million, making India the country with the highest number of illiterate persons in the world. The child sex ratio in fact has declined from 962 in 1981 to 927 in 2007 and the mother and infant mortality rate is highest in East Asia showing poor access to basic health care facilities in India.

One of the major reasons for the widening of this hyphen between the two economies of India is the slow growth of agriculture since the ninth five year plan. Also, economic growth across regions has not been balanced, with some of the most backward areas yet to experience any

significant growth. The delivery of essential social services at the grass root level is also poor and this was a major causative factor in unequal development.

Thus in 2007-08 on one side India had the strong and developed urban sector which was now in a position to not only to sustain itself but to also sustain and develop its weaker sibling the Rural India and this was the reason that the concept of Inclusive Growth was introduced in the Eleventh Five Year Plan.

Meaning of Inclusive Growth

Inclusive growth entails responsible and sustainable creation as well as just distribution of both wealth and welfare. Social cohesion and human dignity lie at its core. It requires extending access to opportunities more widely; it is a key response to the rising inequalities. Inclusive growth seeks to redirect and broaden the flows of globalisation in order toward its intended beneficiaries: the excluded.

The inclusive growth approach takes a long term perspective as the focus is on productive employment rather than on direct income redistribution, as a means of increasing incomes for excluded groups. In the short run, governments could use income distribution schemes to attenuate negative impacts on the poor, of policies intended to jump start growth but this is only a short term solution and is not sustainable in the long run.

Inclusive growth is about raising the pace of growth and enlarging the size of the

economy for investment and increasing productive employment opportunities along with it.

Its main focus is on ways to raise the pace of growth by utilizing more fully parts of the labour force trapped in low-productivity activities or completely excluded from the growth process. Thus allowing people to contribute to and benefit from economic growth. True growth is when it creates economic opportunities along with ensuring equal access to them.

Growth can thus be said to be inclusive when it provides

5) Opportunity of productive employment to people
6) Capability to the people so as to exploit the opportunity of this employment,
7) Accessibility to the people to use this opportunity by developing their capabilities,
8) Securities to its people across all section of society for a permanent livelihood.

In order to make this dream of inclusive growth a reality we need initiative of not just the government but also the private sector. One such initiative was taken by one of the largest corporations of India ITC in the year 2000 in the form of E-Choupal which means 'an electronic market place'. It was developed with the main aim of improving the living standards of the rural poor and at the same time adding value to the shareholders wealth.

The Birth of ITC e-Choupal

ITC Ltd a 101 year old company which features among India's `10 Most Valuable (Company) Brands', started its operations by venturing into the business of cigarettes a word still synonymous to ITC .Later in the years ITC diversified itself into other businesses like paper , hotels and finally into agribusiness in 1990.

ITC 's Agri Business Division currently focuses on exports and domestic trading of various agri-commodities like soya meal , rice (Basmati) , wheat, Fruit Purees/Concentrates, Frozen Fruits, Coffee, Black Pepper, Chilly, Turmeric, Ginger, Celery and other Seed Spices.

This division of ITC which is today the second largest exporters of agri products in India faced serious challenges to its very existence in the year 1995. ITC agri business which was then worth Rs 350 crore was continuously loosing on its profits due to its high procurement cost in the domestic markets and increasing international competition in the foreign market.

To entrench its position, ITC decided to treat the business as a service business and thus was born Project Symphony, which in turn gave birth to the e-Choupal initiative

Table 1
e-Choupal at a Glance

Commencement of Initiative	Year 2000
States Covered	10
Villages Covered -40,000	40,000
No. Of E-Choupals	6500
Farmers E-Empowered	4 MILLION

Source-ITC Portal

The first step under Symphony was a CRM (customer relationship management) initiative to understand the needs of customers, particularly their non-standard needs. Eighty customers in 35 countries, who contributed to 70 percent of the division's turnover, were identified for this effort. Based on the information collected, ITC identified a $1 billion opportunity space in which it could operate. That led to second step of the project. To meet these opportunities, ITC had to deliver on quality and quantity specifications, which meant that it needed better control over its supply chain, right up to the producer.

The agricultural commodity market in India from where ITC procured its raw material was based on the village mandi system. The Mandis system in India was essentially set in place by the government to centralize and also control the distribution of grains from farmers to producers, consumers and

traders. However the organizational structure of the mandis left room for a high level of ambiguity and both greed and self interest of the mandi employees takes precedence over the well being of farmers. The lack of resources namely technology and information made it impossible for farmers to know the true market value of their produce and therefore accepted any price set by the mandis. In many cases they received prices way below the going market price. Many unethical practices were portrayed by the mandis employees. These practices exploited farmers and the lack of education and information of the farmers furthered the abusive behavior of the mandis.

ITC also realized that not only did the farmers loose through the mandi system but even they were paying a much higher cost for a relatively poor quality of produce as the agri commodities passed through five hands before finally reaching ITC.

The ITC group which was one of India's foremost private sectors saw the need to address these inefficiencies and therefore gave birth to a system called the E-choupal.

Figure 1

Supply Chain before e-Choupal

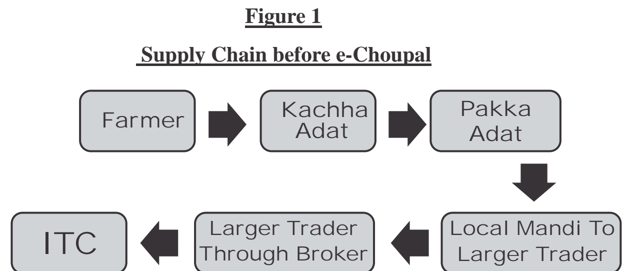
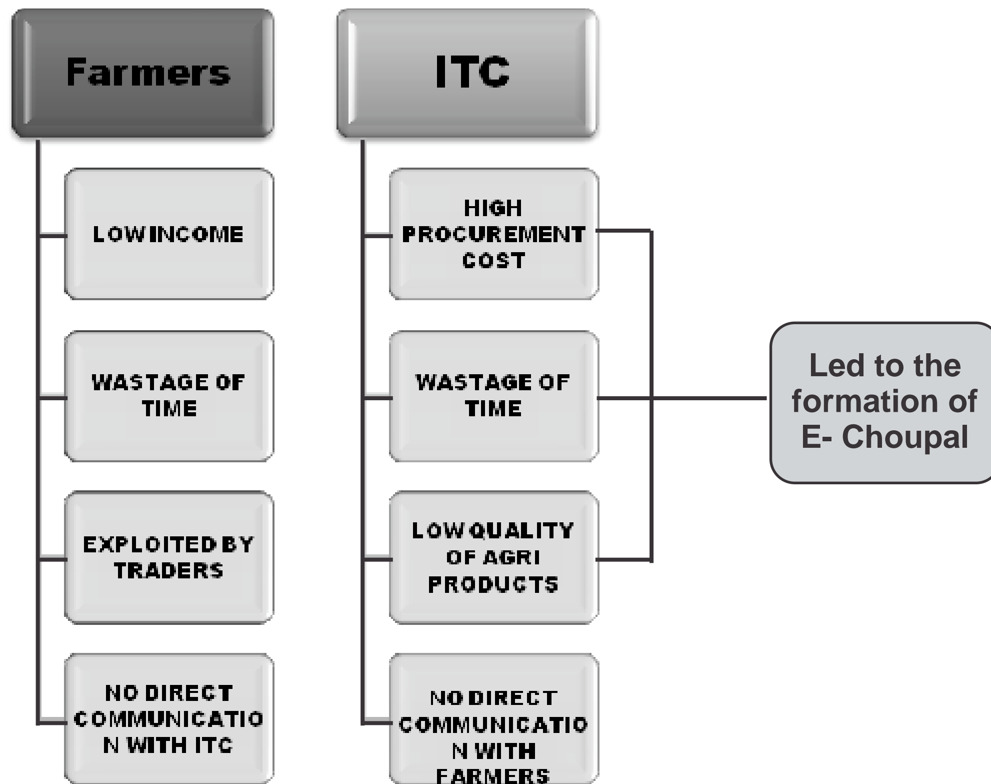


Figure 2- Ill Effects of the Indian Mandi System



ITC e Choupal- 'an idea that created Opportunities, Capability Accessibility & Security'

Choupal which means a village gathering place and 'e' means electronic that is this village gathering place was electronized by ITC by putting up computers and internet connection.

The first e-Choupal was set up in Madhya Pradesh in the year 2000.By setting up e-Choupal ITC did not only do away with the long supply chain but it also opened the gate for direct communication & negotiation between ITC & the farmers. Apart from selling their produce e -Choupal also enabled the farmers to have direct access to information like mandi prices, good farming practices, whether forecast, prices of agri products in the domestic and international market and scientific market practices. The farmers can also buy seeds, fertilizer and other inputs online as ITC has tied up with some big manufacturer to provide such inputs to the farmers at a cheaper price.

Sanchalak – 'security of an Opportunity By Improving Capability & Providing Accessibility'

Crucial to the success of the e-Choupal model is the sanchalak (manager in Hindi), a village entrepreneur selected by ITC to be the man-on-the-ground. The kiosk is installed in the sanchalak's home and he plays the role of disseminating information about crop prices in major markets and weather information and also facilitates the purchase of farming inputs, crop sales, and non-ITC products such as insurance policies. The information dissemination is a free service. In all other cases where the sanchalak enables transactions, he gets paid a commission ranging from 0.25% (fertilizers) to 15% (insurance policies). A typical sanchalak would be an apolitical medium sized farmer with good communication skills having studied up to the 10th or 12th grade. Each sanchalak manages 3-6 villages while an upa-sanchalak (deputy manager) operates at the village level and shares the commission with the sanchalak for transactions enabled by him.

To perform all the above task successfully a sanchalak is first given training by ITC sales person in the village.

ITC Collection Centre- 'an Opportunity along with Accessibility'

The price offered by ITC are the same as that offered in the mandi & it is the discretion of the farmers whom they want to sell their produce to. The farmers can go to the ITC collection centre to sell their produce or can even sell it to the sanchalak. The reason why a farmer prefers this system over the mandi system is because the transaction is instant unlike in the mandi where the farmers have to wait for hours and even days before their produce is sold.

The transportation, bagging, loading & unloading cost of produce is all borne by ITC and this entire system is designed in such a way that there is no wastage & spillage of the produce unlike in the mandi system.

Roles Redefined-an opportunity-

The intermediaries are not removed from the value chain instead their roles are redefined to samayojaks (coordinators), who assist ITC in setting up new e-Choupal by conducting village surveys and by identifying the best sanchalak. They manage the physical transportation of sales made at the e-Choupal, collect price data from local auctions, and maintain records. These coordinators earn a 1 percent commission on product processed.

Contribution of e-Choupal to the rural India

Real-time information and customised knowledge provided by 'e-Choupal' enhance the ability of farmers to take decisions and align their farm output with market demand and secure quality & productivity. The aggregation of the demand for farm inputs from individual farmers gives them access to high quality inputs from established and reputed manufacturers at fair prices.

As a direct marketing channel, 'e-Choupal' eliminated wasteful intermediation and multiple handling and thereby significantly reduced the transaction costs. The farmers are said to save as much as Rs 400 to Rs 500 per ton because of ITC echoupal.

In addition to assisting with knowledge management through the website, ITC provides on-ground inputs to farmers on best practices, grading standards, quality and so on.

Prior to e-Choupal farmers use to be paid the same price even for different quality of the same product in the mandi system. ITC e Choupal through their websites made them aware about the different

qualities of produce and their existing market prices and demand. In a study conducted in 2007 it was found that farmers' profits increased by 33%, and the cultivation of soyabeans increased by an average of 19% in districts with kiosks.

The e-Choupal project is already benefiting over 4 million farmers. By 2012, the e-Choupal network plans to cover over 100,000 villages via 20,000 e-Choupals in fifteen states., representing 1/6th of rural India, and create more than 10 million e-farmers.

e-Choupal has been specially cited in the Government of India's Economic Survey of 2006-07, for its transformational impact on rural lives

Conclusion-

Knowledge is a treasure once gained can never be taken away and it is this treasure which is being disseminated by ITC through e-Choupal. Through the e-Choupal initiative, ITC aims to confer the power of expert knowledge on even the smallest individual farmer thus enhancing his Capability and competitiveness in the global market. Opportunity of employment is provided to the sanchalak and samayojaks and also to the farmers to improve and increase their total farm produce and to sell it in a more profitable and efficient manner. Problem in India was never of lack of capability or opportunity but rather of accessibility. Unless a great opportunity can be accessed by a capable person the opportunity is of no use. Keeping this fact in mind ITC has ensured that e-Choupal are easily Accessible to the farmers in every village also since the sanchalak is a person from their own village farmers find it much easier to communicate and share their problems with him. The experience and knowledge gained by a farmer or a sanchalak through e-Choupal can be used by them throughout their lives thus in turn providing them a Security of permanent livelihood.

ITC e-Choupal by providing opportunity, capability, accessibility and security to more than 4 million farmers across 40,000 villages is undoubtedly contributing to India dream of Inclusive growth.

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An Appraisal of ICT Use in Generic HRM Activities from Automobile Domain

Dr. Sachin Kadam
Ms. Nimisha Bhargava

ABSTRACT

Use of ICT in Human Resource Management (HRM) domain helps to effectively manage people, processes and strategies to optimize human resource management while implementing best HRM practices. In the today's competitive business environment, use of appropriate ICT solution to manage HRM aspect may prove to be the differentiating factor amongst business entities. This paper presents a profile of various types of generic activities involved in HRM domain from automobile sector. Then it discusses the extent of ICT implementation involving theses activities. It concludes with an empirical appraisal of respective extent of ICT use and priorities involved in this domain.

Keywords: *Automobile Domain, HRM, Generic Activities, ICT*

Introduction

The business environment spans various functional areas like: Product Lifecycle Management, Human Resource Management, Supply Chain Management, Customer Relationship Management, Accounting and Financial Management and so on. Amongst them Human Resource Management (HRM) domain is critical towards ICT use as it is more soft than the other functional domains [1]. Human Resource Management (HRM) is both an academic theory and a business practice. It is based on the notion that employees are firstly human, and secondly should not be treated as a basic business resource. HRM is also seen as an understanding of the human aspect of a company and its strategic importance. HRM is seen a moving on from a simple personnel approach, because it is preventative of potential problems, and secondly it should be a major aspect of the company philosophy, in which all managers and employees are champions of HRM based policies and philosophy [2].

On one side HRM deals with the people and on the other side IT deals with more and more automation. On the surface these two seem to travel in opposite directions, posing themselves as alternative methodologies. But in reality they can coexists as complementary to each other to meet the business goals [3].

2: Generic HRM Activities Involved in Automobile Domain

Professionals involved in HRM process manage and lead an organization's people resources. Some of the broader areas of HRM activities include [4]:

- Recruiting new employees for the organization
- Interviewing and hiring new workers for the organization
- Assessing employee performance
- Managing benefit plans for employees through competitive salary increases or other incentive programs

Following is an exhaustive listing of routine activities involved in HRM domain. This list was prepared based upon the secondary data collected from text books and research papers from HRM domain [5][6][7]. The activities are logically categorized according to their relevance.

2.1: Organizational Planning and Development
- Determine Organizational People Needs
- Design Organizational Structure
- Design and Develop Interpersonal Relationships

2.2: Staffing and Employment
- Manpower Planning
- Recruitment
- Selection
- Placement
- Induction
- Orientation
- Transfer
- Promotion
- Separation
  - Discharge
  - Dismissal
  - Retirement
  - Resignation

2.3: Training and Development
- Operative Training
- Executive Development

2.4: Wages and Salary Administration
- Job Evaluation
- Wage and Salary Programmes
- Maintenance of Payroll
- Incentive Compensation
- Performance Appraisal

2.5: Motivation
- Non-financial Incentives
- Satisfaction of Social and Psychological Needs

2.6: Employee Services and Benefits
- Safety
- Employee Counseling
- Medical Services
- Recreational and Welfare Services
- Benefits
  - o Leaves
  - o Pension
  - o Gratuity
  - o Provident Fund etc.

2.7: Employee Records
- Collection of Data
- Analysis of Data
- Developing Information For Decisions

2.8: Labor Relation
- Grievance Handling
- Implementation of Collective Labor Laws
- Collective Bargaining
- Discipline

2.9: Audit
- Moral Surveys
- Record Keeping
- Evaluation of HR Programmes

2.10: Research
- Identification of Changing Needs
- Development of More Appropriate Programmes

We can use IT as a tool to automate these routine activities involved in this domain. This will realize the required coexistence of HRM and IT.

3: Collection of Primary Data about the Extent of ICT Use in HRM Domain

A survey was conducted through organizations from automobile industry domain to collect empirical primary data. Its details are as follows:

3.1: Objective

Objective of this survey was to assess the extent of ICT use in HRM activities in automobile domain.

3.2: Scope of Study

Scope of this survey was organizations involved in automobile domain in the vicinity of Pune.

3.3: Sampling

Convenient sampling method was used. The proposed sample size was about 25 organizations involved in automobile domain in the vicinity of Pune.

3.4: Structure of the Survey Questionnaire

Sr. No.	Routine Activities Involved in HRM Domain		Write YES if Your Organization Uses IT to Perform this Activity	Year of Implementation	Status of Implementation (Scale: 1 to 5; where 1 stands for minimum level of implementation and 5 stands for maximum level of implementation)	Description (e.g. Name of the Software / Type or Category of the Software / Functionality of the Software etc.)
	Activity Category	Activity				

(Table 1: Structure of the Survey Questionnaire)

The objectives of the questions in questionnaire were as follows:

Question	Objective
Write YES if Your Organization Uses IT to Perform this Activity	To assess the level and breadth of ICT automation in the organization
Year of Implementation	To assess the automation priority of various activities involved in HRM domain
Status of Implementation (Scale: 1 to 5; where 1 stands for minimum level of implementation and 5 stands for maximum level of implementation)	To assess the depth of ICT automation in the organization
Description (e.g. Name of the Software / Type or Category of the Software / Functionality of the Software etc.)	To know about the ICT automation software used in various activities involved in HRM domain

(Table 2: Objectives of the Questions in Survey Questionnaire)

3.5: Primary Data Collection

The above questionnaire was circulated amongst HR managers of 25 organizations from automobile domain in the vicinity of Pune. Convenient sampling methodology was used for the circulation. Out of 25 participants in the survey 13 responded with complete response. These 13 were used for further analysis as other respondents did not provide complete information.

3.6: Data Analysis

The primary data collected through the survey was organized in MS-Excel spreadsheet application. The data analysis features of MS-Excel were used to analyze this data further. Table 3 displays the outcome of this analysis.

Category of the Activity	Title of the Activity	No. of Organizations using ICT for this Activity
Organizational	Determine Organizational People Needs	6
Planning and	Design Organizational Structure	7
Development (OPD)	Design and Develop Interpersonal Relationships	5
Staffing and	Manpower Planning	13
Employment (SE)	Recruitment	13
	Selection	13
	Placement	13
	Induction	13
	Orientation	13
	Transfer	12
	Promotion	12
	Separation	7
Training and Development (TD)	Operative Training	11
	Executive Development	11
Wages and Salary	Job Evaluation	8
Administration (WSA)	Wage and Salary Programmes	13
	Maintenance of Payroll	13
	Incentive Compensation	11
	Performance Appraisal	7
Motivation (M)	Non-financial Incentives	3
	Satisfaction of Social and Psychological Needs	0
Employee Services and Benefits (ESB)	Safety	5
	Employee Counseling	10
	Medical Services	5
	Recreational and Welfare Services	5
	Benefits	11
Employee Records (ER)	Collection of Data	13
	Analysis of Data	13
	Developing Information For Decisions	12
Labor Relation (LR)	Grievance Handling	1
	Implementation of Collective Labor Laws	2
	Collective Bargaining	1
	Discipline	1
Audit (A)	Moral Surveys	4
	Record Keeping	4
	Evaluation of HR Programmes	4
Research (R)	Identification of Changing Needs	11
	Development of More Appropriate Programmes	9

Category of the Activity	Title of the Activity	No. of Organizations using ICT for this Activity
Organizational Planning and Development (OPD)	Determine Organizational People Needs	6
	Design Organizational Structure	7
	Design and Develop Interpersonal Relationships	5
Staffing and Employment (SE)	Manpower Planning	13
	Recruitment	13
	Selection	13
	Placement	13
	Induction	13
	Orientation	13
	Transfer	12
	Promotion	12
	Separation	7
Training and Development (TD)	Operative Training	11
	Executive Development	11
Wages and Salary Administration (WSA)	Job Evaluation	8
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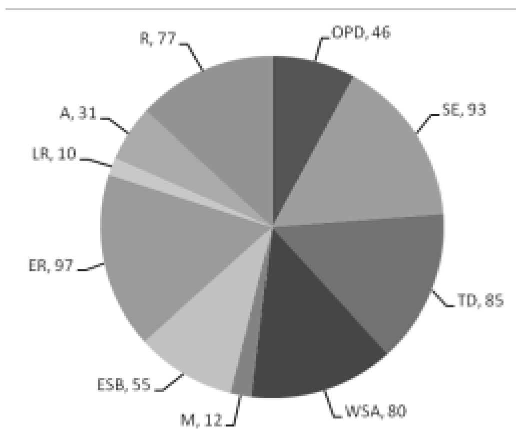
	Record Keeping	4
	Evaluation of HR Programmes	4
Research (R)	Identification of Changing Needs	11
	Development of More Appropriate Programmes	9

(Table 3: Use of ICT for Generic HRM Activities in Automobile Domain)

The tabulated data in Table 3 was then statistically analyzed to assess the extent of ICT use in respective activity categories. Graph 1 represents this analysis pictorially as follows:



(Graph 1: % of Organizations using ICT for Generic HRM Activities)

Category of the Activity	Extent of ICT Use
Organizational Planning and Development	Bellow Average
Staffing and Employment	Above Average
Training and Development	Above Average
Wages and Salary Administration	Above Average
Motivation	Bellow Average
Employee Services and Benefits	Average
Employee Records	Above Average
Labor Relation	Bellow Average
Audit	Bellow Average
Research	Above Average

(Table 4: Extent of ICT Use in Categories of Activities)

4: Conclusion

The analysis of the secondary data collected from resources like text books and research journals from the HRM domain revealed ten generic categories of activities involved in automobile sector. These generic categories were further expended to total 38 activities. A questionnaire was designed and survey was conducted to assess the extent of ICT use in identified generic activities. The analysis of the primary data collected through the survey resulted in the following observations:

- Above Average Extent of ICT Use in Generic Activity Categories
- Staffing and Employment
- Training and Development
- Wages and Salary Administration
- Average and Bellow Average Extent of ICT Use in Generic Activity Categories
- Organizational Planning and Development
- Motivation
- Employee Services and Benefits
- Labor Relation
- Audit

This reveals the ICT implementation gap in HRM departments from automobile domain. The activities having better ICT implementation status also reveals the automation priorities in this domain. This research will be further extended to assess the depth and quality of ICT implementation in this domain.

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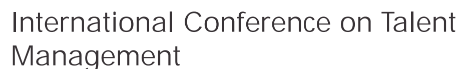

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2. To identify the barriers in building talent.
3. To identify measures to develop leadership talent pipeline.
4. To deliberate on innovative tools leading to effective talent management.
5. To attract and retain talent to meet needs of organizational growth.
6. To develop some approaches for talent management that appeal to multiple generation.

Conference Tracks : In this context, the organizers invite contributions in the following non exclusive tracks:

I Human Resource

- Identification of employee skill gaps
- Challenges in Talent retention and upgradation
- Creating a talent pool
- Redesigning organizations for Talent Management
- Building a leadership talent pipeline
- Capability Building as priorities for Talent Management
- Team Orientation and Talent Management

II Social Media and Information Technology

- Harnessing power of networks in Talent Management
- Managing net generation workers
- Utilisation of IT in talent management
- Challenges in upgradtion of IT skills for talent management

III General Management

- Dealing with talent shortfalls in Management / Strategy / R&D/ Marketing/Operations
- Gender issues in Talent Management
- Augmenting talent externally
- Talent acquisition and management strategies
- Talent Management in Critical positions
- Return on Investment in Talent Management

IV Global and Cross Cultural Management

- Talent specific hiring challenges – the Global local dilemma
- Cross Cultural issues in Talent Management
- Unlocking potential through Global preparedness
- Linking talent with employee benefits in the global context
- Addressing talent shortage in cross cultural context.

Note :

The above sub themes are indicative. Topics over and above, covering various aspects of Managing Talent are also invited.

Call for Papers:

Abstracts and full papers on any of the theme of the conference should be mailed to int.conf.imed@gmail.com Abstract must include a clear indication of the purpose of the paper, major results, implications and Key references. The author(s) should clearly mention under what tracks the paper should be included. Authors of selected papers will have to present the same.

Guidelines for the Submission of Paper:

Covering Letter : Title of the paper; Author's Name, Designation, Organization, Contact Details.

Abstract: Should include (Maximum 500 Words) in brief- Background, Purpose and Objectives, Research Questions/Hypothesis, Methodology, Findings, Conclusions and Keywords.

Paper : Should include – Introduction, Purpose and Objectives, Research Questions/Hypothesis, Methodology, Findings/Results, Conclusions/ Recommendations and References.

The paper should be sent in soft copy, be in A-4 Size, in MS-Word and Times New Roman font size 12 (headings -14), with line spacing of 1.5, margin of 1.5 inch on all four sides. The Harvard Style should be used in referencing. For further details visit www.bvduimedincon.org

Declarations : Author must declare originality of work. The article should not have been published or be submitted for publication elsewhere.

Publication : All papers will be reviewed and printed in the conference publication bearing ISBN No.

Best Paper Awards - Authors of best papers (one from each track) will be awarded with cash prize and citation

Best Paper will be published in IMED Journal having ISSN No. 0975-8429

Registration:

- All the authors of the paper should register for the conference and at least one author should present the paper.

Delegate Type	Indian	Foreigner/ NRI
Student	Rs. 500	US $ 30
Research Scholar (Only those pursuing Ph.D.)	Rs. 1000	US $ 100
Academician	Rs. 1500	US $ 200
Corporate	Rs. 2500	US $ 300

IMPORTANT NOTE:

Accommodation : It can be arranged for the delegates in nearby hotels upon request before Jan 30, 2013. The Payment will be borne by the participant.

Fare: to and fro fare and conveyance will be borne by each participant.

Participants are requested to send in a Demand Draft of the requisite amount in favour of "Director, IMED", payable at Pune together with duly filled registration form.

Last date for registration is February 10, 2013.

Free Stay arrangement for lady participants will be made in the hostel on a first come first serve basis, those interested should contact convener.

Duration:

The programme is scheduled for two days :

Day 1 : February 22, 2013 (9 am onwards) :

Registration – Inaugural – Guest Speakers – Plenary Session – Paper presentation

Day 2 : February 23, 2013 (9 am onwards)

Guest Speakers – Plenary Session – Paper presentation - Valedictory

Venue : BVDU, IMED, Bharati Vidyapeeth Auditorium

Important Dates:	
Last Date for Submission of Abstract (Maximum 500 words)	10/12/2012
Acceptance of Abstract	20/12/ 2012
Last date for Submission of Full Papers	30/01/ 2013
Last Date for Registration of Conference	10/02/2013

Contact

Institute of Management and Entrepreneurship Development, Paud Road, Erandwane, Pune-411038, Maharashtra, (INDIA).Tel:020-24525517 / 25431060.

Email: int.conf.imed@gmail.com, imed@bharatividyapeeth.edu.

Website: imed.bharatividyapeeth.edu, www.bvduimedincon.org

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