



Since 1999

ISSN - 2250 - 1533

# BIITM BUSINESS REVIEW

Volume 5

No. 2

July - December 2014

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*A Bi-Annual Journal of*

**Biju Patnaik Institute of IT & Management Studies**  
(Approved by AICTE & Affiliated to Biju Patnaik University of Technology, Odisha)

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## *From the Chief Editor's Desk*

It is a great pleasure to announce that the 4th volume of our journal "BIITM Business Review" is being published. It contains quality articles with rich inputs on various domains of management. We extend our heartfelt thanks to all the contributors from various institutions and hope their cooperation in future also.

We are trying best to improve the quality of the journal and striving our continuous effort to achieve this goal. We hope the journal will meet its goal by providing quality inputs to students, faculty members, researchers and to academic fraternity as a whole.

The editorial board would like to extend heartfelt thanks to its Chief Patron, Mr. P. K. Balabantray, Patron, Prof. P. R. Pattanayak and Advisors for their encouragement and support for the success of this issue.

**Dr. P. K. Tripathy**  
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## *From the Editor's Desk*

It gives us immense pleasure in informing you that our journal "BIITM Business Review" has become popular and gain acceptance in a short span of time. We are proud to host articles with the ISSN number as it enhances the recognition and credibility of the articles published in the journal.

The articles in this issue are a selection from the work done by a group of researchers and practitioners on some of the important aspects of management and related fields. It is our continuous effect to bring out the versatility of the concepts in the light of providing knowledge and satisfaction to our readers.

The editor would like to heartily thank its Chief Patron Mr. P. K. Balabantray, Principal, Advisor, members of the editorial board, the authors and other well-wishers for their cooperation and encouragement in bringing out this issue.

**Mr. Anil Kumar Mishra**

**Editor**



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## Socio –economic life of fishermen in coastal Odisha - A case study

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### Abstract

Fishermen in India have been striving hard to a decent life for their sibling and posterity. The whole community is toiling hard against the fury of ocean and the surrounding everyday for an existence of course. The socio-economic life of this community is nothing but depending upon the safe return of their male fishers from the jaws of natural disaster and calamities to the extent of annihilation from fishing in the ocean. The community's life is to share their belongings including sorrow and joy amid bare necessities. Co-operation is the hall mark of their community. Family members are often seen busy with their merchandise of fish and fish product for a life close to bare subsistence. However, uncertainty of life and uncertainty of economic well being is a part of their daily life. Odisha is one of the states of India where fisher community provide 40% of the fish used for human consumption and contribute in turn, a healthy amount to the GDP of the state. With the advent of machines and fishing –boats (modern technology) by large scale entrepreneurs into the marine fishing, the life of this traditional fishers are in the brick of poverty and exploitation. Hence, there is an urgent need for the state to take up fishermen's plight and devise an adequate management plans to protect them from socio-economic exploitation .This can be taken care up through a consultative approach as fishers community suffer from lack of confidence, lack of technical know-how of the modern technology and the modus operandi of bureaucrats at large.

This paper explains the socio-economic life of fisher community in Odisha. In fact, their social life is mingled with the economic life too in a state of despair and deteriorating level of mere existence. This paper tries to highlight the plight of fishers of Odisha and suggested a life of decent but sustainable one.

*Key words:* Socio-economic life, Fishermen community, Sustainability, Marine ecosystem



### Introduction:

Apparently, Ocean and its treasure have plenty to share with human race sans its fury, if taken prudently, on the way to development of course. Indeed, Ocean provides livelihood to millions of people around the world as well supplies the nutritional diet to the people at large. Million of fishers have been striving hard to have a decent life for their families and dependents by plundering treasure called marine fish from the sea. Uncertainty of life and uncertainty of economic well being is a part of their daily life. Every day is a new day for them as they have to fight a risky battle against the nature's fury for survival and the probability of safe return from the sea after fishing is very remote.

### Fishery resources in Odisha:

The east coast of Odisha forms 8 % of the coast line of India. The average rainfall varies between 1,200 mm and 1,600 mm. Odisha is also prone to natural disasters like floods, cyclones and droughts. In very recent past, Phailin and Hudhud are the best examples. It has 6 coastal districts viz. Ganjam, Puri, Jagatsinghpur, Kendrapara, Bhadrak and Balasore. There are 641 marine fishing villages situated along the Odisha coast. The total marine fisher population of the State during the year 2005 has been estimated at 4,50,391 (NMFC, 2006) in 86,352 households, of which 41% are in Balasore district, 15% in Jagatsinghpur district, 13% in Bhadrak, 12% in Puri, 10% in Ganjam and 9% in Kendrapara districts. Out of 1,21,282 persons engaged in marine fishery activities in Odisha, 74,980 are full-time fishermen, 34,315 are part-time and 11,987 are occasional fishermen. Marine fishery of Odisha is mainly carried out by a means of mechanised boats, medium size trawlers, traditional crafts, motorised and non-motorised boats. As per the recent statistics, the present fleet size of the State is as follows.

Table 1: The Present fleet size of the State					
Sl.	Name of the dist.	No. of Fishing crafts			Total
		Mechanised	Motorised	Nonmotorised	
1	Balasore	569	738	538	1845
2	Bhadrak	293	295	181	769
3	Kendrapara	119	305	385	809
4	Jagatsinghpur	656	323	588	1756
5	Puri	76	1446	1056	2578
6	Ganjam	0	696	1182	1878
	Total	1902	3803	3930	9635

(Source: Fisheries Department Draft, 2009, Dept. of Fisheries, Government of Odisha)

(Source: Fisheries Department Draft, 2009, Dept. of Fisheries, Government of Odisha)

Maximum sustainable yield from Odisha coast has been estimated to be 1.61 Lakh Metric Ton. But since last four years the catch is almost at the same place increasing from 1.2 lakh to 1.3 lakh MT Year-wise production is illustrated below:

Table 2: Fish catch in Odisha coast

Year	Production (in MT)
2003-04	1,16,880
2004-05	1,21,928
2005-06	1,22,213
2006-07	1,28,141
2007-08	1,30,568
2008-09	1,35,486

(Source: Fisheries Department Draft, 2009, Dept. of Fisheries, Government of Odisha)

### Coastal regulation for fishing activities:

#### Laws and Policies:

The state has a clear cut policy towards marine fishing in the form of Odisha Marine Fishing Regulation Act (OMFRA). This comes in to force from 1982. It aims at sustainable fishing through numerical restriction of mechanized fishing vessels in the landing centers and protecting the economical interests of traditional fisher operating in the marine sector. Fishing ban and ban on particular gears are done under the Act. As regards protecting the coast, the Coastal Regulation Zone (CRZ) notification & the Coastal Aquaculture Authority Act (CAA), 2005 notified by GOI have been in force.

#### Institutions/ Authorities:

Govt. in Fisheries & ARD Department is responsible for implementation of the OMFR Act & Rules and CAA Act, 2005 in the State. Olive Ridley Sea Turtles in the coastal waters of Odisha is reported to start from mid October to end of April/ May. That's why there is a ban on fishing from 1st November to 31st May vide notification no.1895/FARD Dt.04.02.2005. Besides this, uniform ban on fishing by all mechanized vessels from 15th April to 15th June, every calendar year is imposed in the territorial waters in line with the ban on fishing in the EEZ by GOI for marine fishery resource conservation.

#### Effect on the livelihood of the fishermen:

Apparently, the ban on fishing for the protection of Olive ridley turtle and the general ban imposed by the Govt. of India, the fishermen of the coast of Odisha lose almost seven months in a year. The rough weather condition also prevails for more than two months, in which the



fishermen cannot go for fishing. Hence the livelihoods of these fishermen are badly affected and tempted them, in turn, to be exploited easily. From a conservative estimation, it is envisaged that about 26,861 active fishermen in the vicinity of the prohibited areas are mostly affected. Out of the said population about 30% active full time fishermen (8070) are perpetually losing their daily wages to the tune of about Rs. 21.78 crores per annum during the active ban period (1st November to June 15th including 60 days common ban in the entire East Coast from 15th April to June 15th). Other part-time fishermen are also losing their income to the tune of Rs. 25.42 crores annually, considering average daily income of active full time fishermen and part time fishermen as Rs. 150/- and Rs. 100/- respectively. Out of 240 days of fishing 180 days of fishing are affected by turtle conservation.

#### OBJECTIVES OF THE STUDY:

- To understand the social and economic life of fishermen in Odisha.
- To explore the areas of concern for development base.
- To find out their miseries and device a plan for their feasible panacea.

#### RESEARCH DESIGN:

The very nature of our study indicated the type of research to be 'Descriptive' in nature.

##### Data collection:

For the present study of our data were collected from both following primary and secondary sources. The data were collected for a non-specific period.

**Secondary data:** The data sources were various publications related to the topic, viz. magazines, journals, newspaper and so on.

**Primary data:** These were collected through a structured questionnaire.

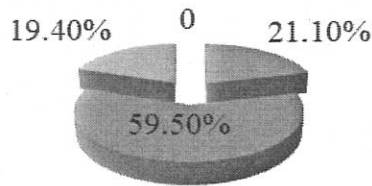
For the study the sample size is **300 households**, randomly chosen from the coastal districts namely Puri, Ganjam and Balasore.

#### DATA ANALYSIS AND INTERPRETATION:

Chart 1

(Number of years of respondents staying in the coastal area)

Less than 20 years	Over 20 years	Less than 10 years
21.1%	59.5%	19.4%

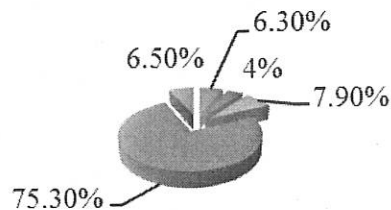


■ Less than 20 years ■ Over 20 years ■ Less than 10 years

About majority of the respondents (59.5%) have been staying in the coastal area for more than twenty years.

Chart 2  
(Reason for moving to the area)

Native of the area	Farming	Livestock grazing	Fishing	Others
6.3%	4%	7.9%	75.1%	6.5%

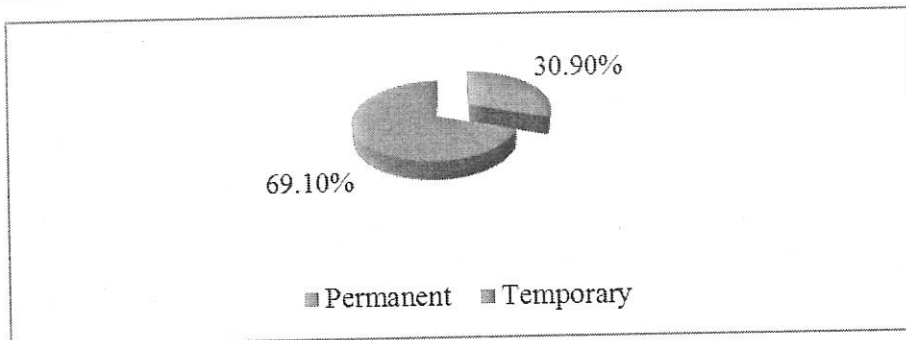


■ Native of the area ■ Farming ■ Live stock grazing  
■ Fishing ■ Others

When asked about the reason for migration most of the respondent (about 75.30%) indicated it for fishing.

Chart 3

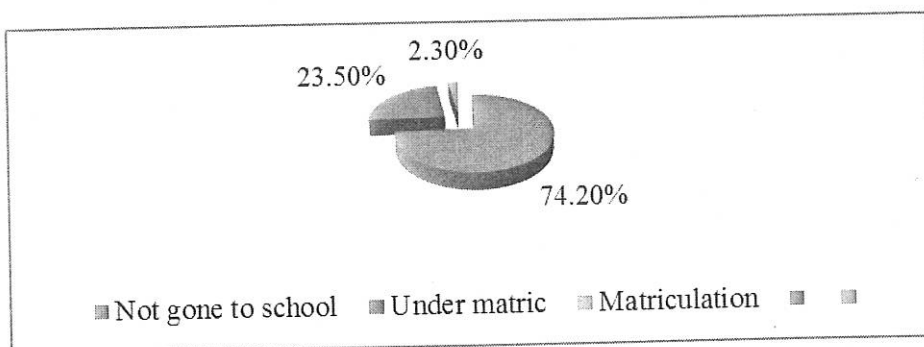
Permanent	Temporary
30.9%	69.1%



It was found that most of them (69.10%) still do not have a permanent home.

Chart 4  
(Educational level)

Not gone to school	Under Matric	Matriculation	Intermediate	Graduation
74.2%	23.5%	2.3%	0%	0%

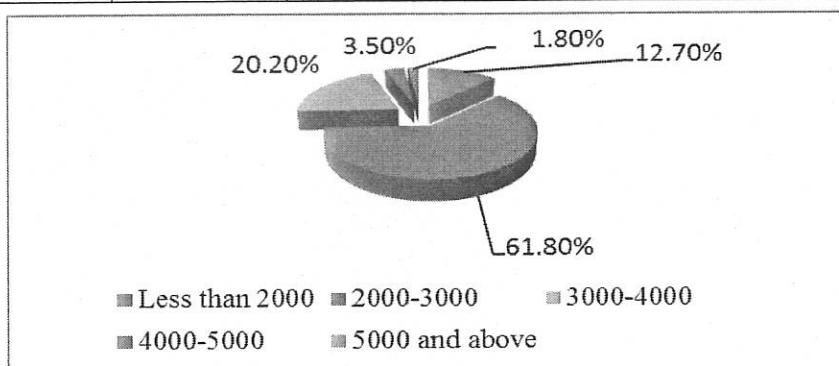


Around 74.2% of the respondents have never gone to school in their life, whereas 23.4% have not even completed Matriculation. And it was only 2.3% who have completed Matriculation and nobody have ever gone to college.



Chart 5  
(Income per month in Rupees)

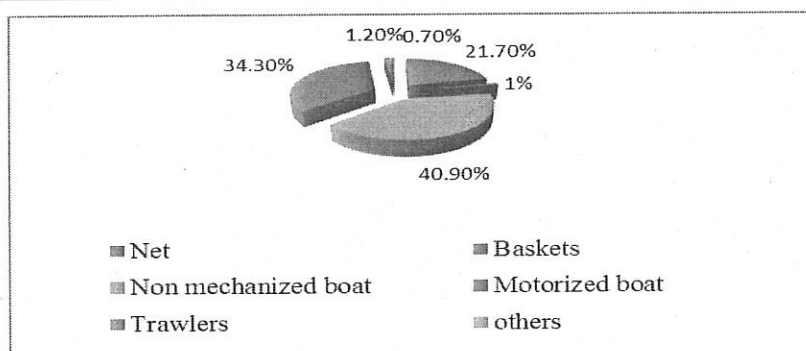
Less than 2000	2000-3000	3000-4000	4000-5000	5000 and above
12.7%	61.8%	20.2%	3.5%	1.8%



Majority of the respondents (61.8%) have a monthly income of two to three thousand rupees per month. Less income is the main roadblock to their economic condition.

Chart 6  
(Common Fishing Methods used)

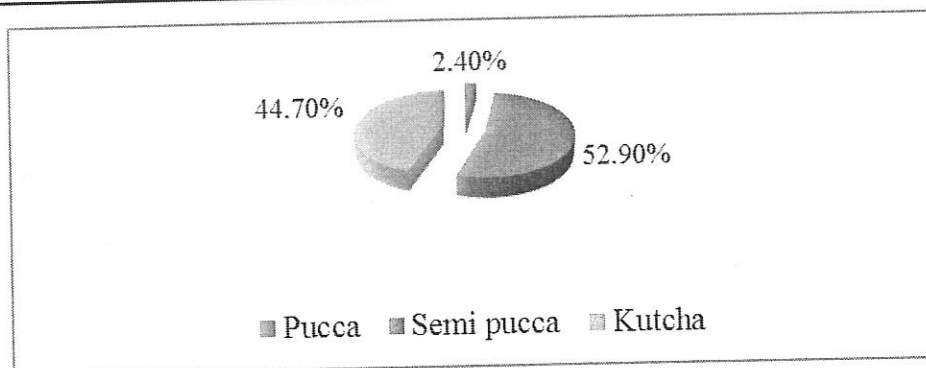
Less than 2000	2000-3000	3000-4000	4000-5000	5000 and above
12.7%	61.8%	20.2%	3.5%	1.8%



The above figure shows that they are still not that sound technology wise, till today more than 60% of the respondents catch fishes in a traditional manner whether through net, non mechanised boat or baskets.

Chart 7  
(Type of house)

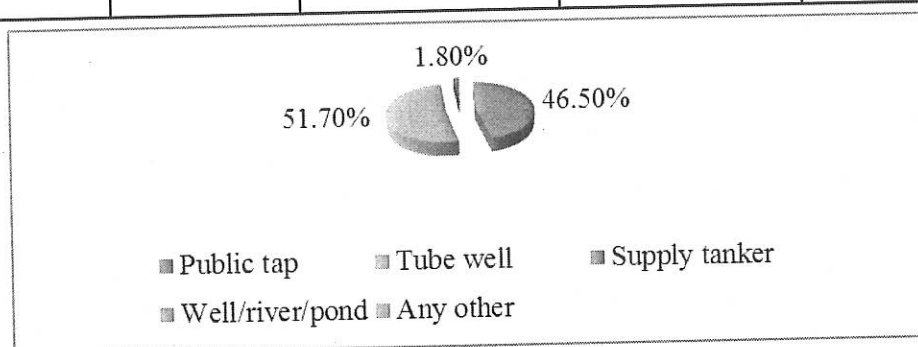
Pucca-1	Semi-pucca-2	Kutchha-3
2.4%	52.9%	44.7%



Around 44.7% of the respondents still stay in a kutchha house or in a hutch, whereas with some assistance from different institutions 52.9% of the samples have made it slightly better, or semi-pucca, but in these cases the roof is not made up of concrete.

Chart 8  
(Sources of drinking water)

Public tap	Tube well	Supply tanker	Well/River/Pond	Any other
46.5%	51.7%	1.8%	0%	0%

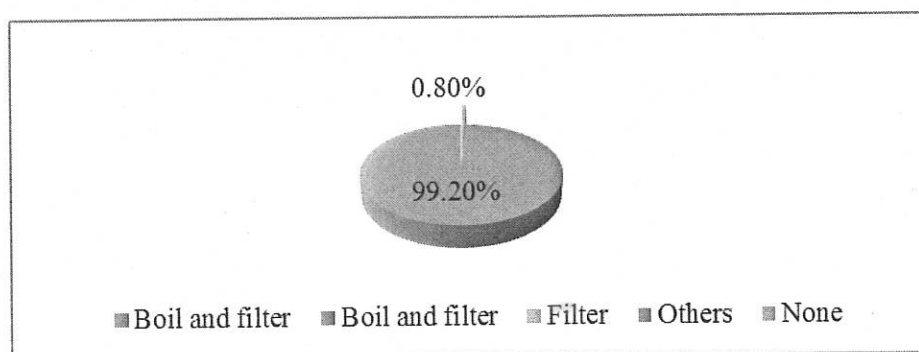


More than 95% of the respondents rely on public tap or tube well for drinking water.

Chart 9

(Ways of treating the water before drink)

Public tap	Tube well	Supply tanker	Well/River/Pond	Any other
46.5%	51.7%	1.8%	0%	0%

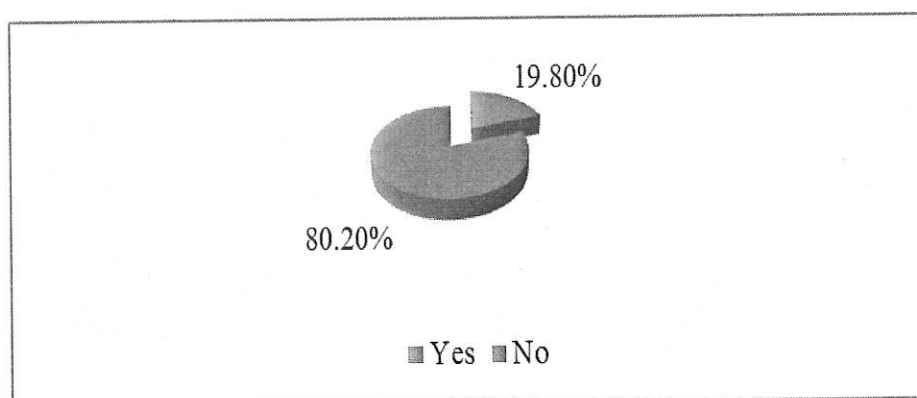


Almost 99% of the respondents drink the water directly after getting it from the public tap or tube well or any other. And that's why they are prone to diseases caused by water.

Chart 10

(Separate space for cooking)

Yes	No
19.8%	80.2%



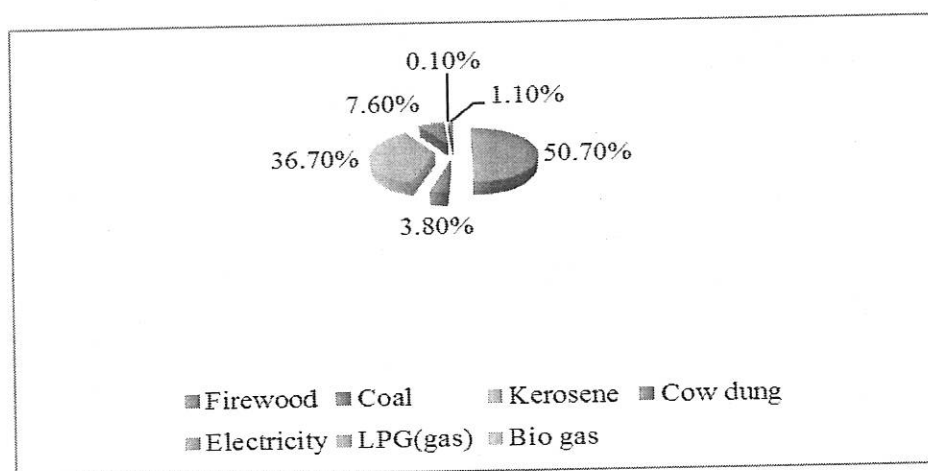


More than 80% of the respondents cook in open, since they do not have a separate cooking space.

Chart 11

(Fuel mostly used for cooking)

Firewood	Coal	Kerosene	Cow dung	Electricity	LPG	Bio-gas
50.7%	3.8%	36.7%	7.6%	0.1%	1.1%	0%

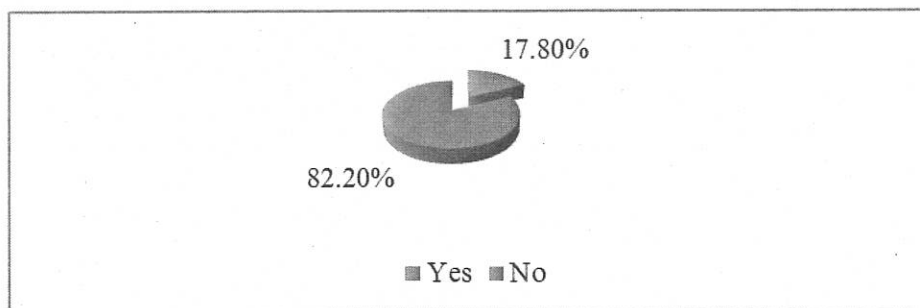


More than half of the sample use firewood for cooking purpose. Usually women or children are busy in collecting wood from the free source. 36.7% of the respondents use kerosene as the fuel for cooking. And they collect it from the Public Distribution System.

Chart 12

(Presence of Toilet)

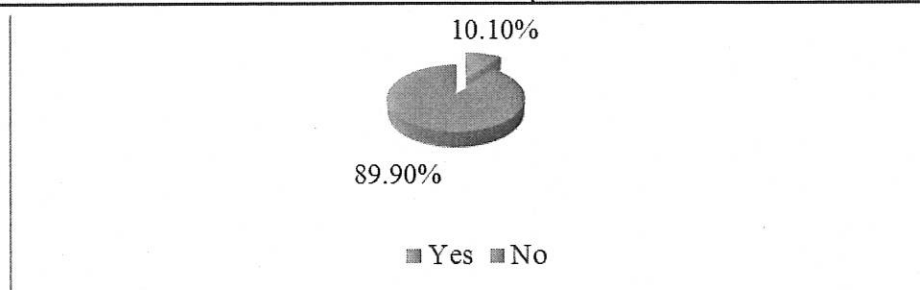
Yes	No
17.8%	82.2%



Around 82.2% of the respondents use open space for their toilet, whereas with the assistance of Govt., NGOs and others about 17.8% of the respondent have made their own toilet.

Chart 13  
(Ownership of Agricultural land)

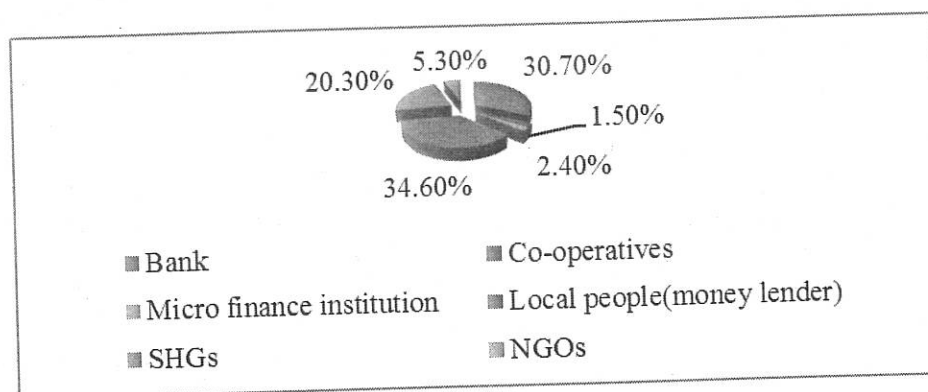
Yes	No
10.1%	89.9%



Even if a large percentage of the sample is interested in farming, but due to lack of agricultural land, they could not do it. But at times, they work in others farm as daily labourers.

Chart 14  
(Avail and access to finance)

Bank	Cooperatives	Micro finance	Local people	SHG	NGO	NBFC	Others
30.7%	1.5%	2.4%	34.6%	20.3%	5.3%	2.1%	3.1%

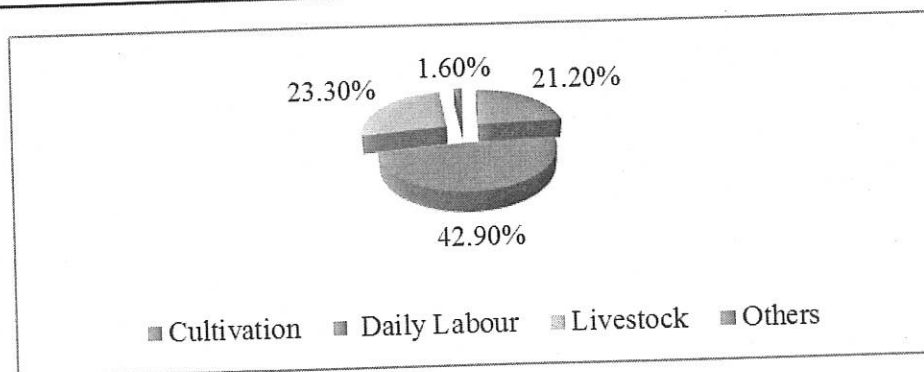


Around 34.6% of the respondents depend on the local people such as money lenders, their relatives to get micro credits. Of course, with the presence of Govt. and public sector banks in the rural areas, presence of self help groups with assistance from different institutions, they do get an access to these alternatives hardly ever.

Chart 15

(Other sources of Income besides Fishing)

Cultivation	Daily Labour	Livestock	Others
21.2%	42.9%	23.3%	12.6%



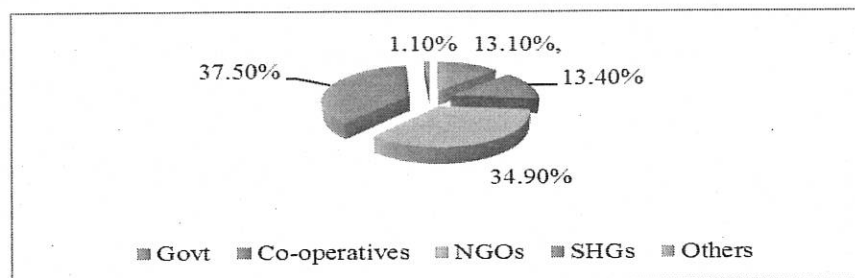
Around 42.9% of the respondents work as daily labourers other than fishing, whereas 23.3% relies on livestock. 21.2% put their effort on cultivation, by migrating themselves to other locations. They do this because of seasonal unemployment reasons.



Chart 16

(Assistance from the last 5 years from the following Institutions)

Govt.	Co-operatives	NGOs	SHGs	Others
13.1%	13.4%	34.9%	37.5%	1.1%



The role of self help groups and several non-governmental organizations are actually trying hard to develop their socio-economic conditions, whereas even the Govt. claims taking initiatives for their betterment, but in real sense they are getting very less benefit out of it. This can be understood by looking in to the above figure.

Chart 17

(Problems of Fishermen in Coastal Odisha)

Consolidated ratings on the variables by respondents about their problems in daily life (where 1 = Insignificant, 2 = Less Insignificant, 3 = Neither Insignificant nor Important, 4 = Important, 5 = Extremely Important)

Sl No.	Problems of fisherman	1	2	3	4	5
1	Owner ship of homestead land	0%	2%	10%	23%	65%
2	Health problem	1%	2%	7%	12%	78%
3	Food insecurity	0%	0%	1%	5%	94%
4	Low literacy rate	0%	2%	0%	6%	92%
5	Uncertain livelihood	0%	0%	1%	3%	96%
7	Seasonal unemployment	2%	3%	3%	10%	82%
8	Govt. restrictions on fishing	2%	4%	9%	33%	52%
9	No savings	0%	2%	3%	4%	91%
10	Accidents in the sea	%	4%	10%	38%	48%
11.	Transportation problem	3%	2%	15%	13%	67%
12.	Funding problem	0%	0%	0%	2%	98%
13.	Lack of Amenities	0%	0%	1%	2%	97%
14.	Insurance	0%	0%	2%	3%	95%
15.	No electricity	1%	3%	6%	18%	72%
16.	Child labour	1%	2%	3%	12%	82%
18.	Natural calamities	0%	0%	2%	34%	64%

**LIMITATIONS OF THE STUDY:**

1. The limited time span and non availability of official information germane to secondary data has put our study in the state of motion less.
  2. Non- comply of the respondents due to the illiteracy, ignorance and act of inquisitiveness put our study in a state of motion less.
- In spite of this, the study tried its best to forward the plight of fishermen and their families to the limelight.

**FINDINGS:**

With the advent of modern technology of fishing germane to even marine fishing, the traditional activity of the community as a whole is missing when we talk of fishing. In the recent past or so, people were involved with a sense of togetherness, sharing and cooperation, of course. This scenario has undergone a remarkable change and time and again they are now accommodated with the individualistic approach in their task ahead. The presence of globalization with capital-intensive mode of operation in the realm of marine fishing, the traditional and more labour-intensive method of fishing is completely obsolete, this in turn, rendering more fishermen to be unemployed. And indirectly pushing them to be an unskilled labour pool which is an unknown domain altogether. Of course, the modern technology has created frictional unemployment amongst the illiterate fishermen. Since they lack sharpness in fishing, they have no other way out to meet the global demand and competition for which they, indeed, are the victim of poverty and unemployment too recently.

Apparently, the traditional fishing community is facing the problem of survival now. Their women have ventured out for new avenues say labourer in the nearby hotel, restaurant and street vender for petty goods and construction, plantation works even or in the agricultural field. Their children are away from schooling but supplementing to family's income and being the victim of child's labour.

Moreover, the community lack proper housing, sanitation, safe drinking water, affordable education and health services, communication and transport for developing their inner urge towards a competitive world and face the challenges in life. Lack of encouragement from government, natural calamities i.e. cyclones, floods, ban on their unorganized fishing, accidents at sea are added to their poverty for which they are exposed to exploitation and diseases. The world of tourism, WHO, and other voluntary organizations are also putting pressure upon the fishing community for which the community has been sandwiched between traditional but known life to an uncertain and difficult modern life. Their plight is known to many and efforts have been undertaken by governments and non-government agencies but the situation is too much for the community to bear with due to their illiteracy and unskilled state of nature

in this world. In fact, they are alien to the other world but fishing. And this isolation from the mainstream is adding a salt to their infected sore.

However, some extent government has enacted certain specific programs for their socio-economic development and result is coming out, of course slowly.

In the recent past, the state has a clear cut policy towards marine fishing in the form of Odisha Marine Fishing Regulation Act (OMFRA) that came in to force from 1982. It aims at sustainable fishing through numerical restriction of mechanized fishing vessels in the landing centers and protecting the economical interests of traditional fisher operating in the marine sector. But in reality it is not so. The socio-economic condition of fisher community at least in Odisha has been deprived of certain amenities for which the community as a whole is in the midst of vicious circle of poverty. Indeed, the lack of schooling facilities for their errand children, unavailability of medical facilities to treat waterborne diseases and poor sanitation facilities have compounded their miseries to a point of no return in the economic life. The limited available basic infrastructure facilities have also blocking them to move ahead in the socio economic ladder. It is also seen that the programmes and schemes for their development are only decorating the bureaucratic files, and they become the white elephant of the state. The state machinery is far away from the reality and the fishermen have no intention to go away from the age-old but experienced life style and listen to the complicity of the e-governance that is alien to them.

#### SUGGESTIONS:

1. Housing facilities with legal support must be provided.
2. Affordable sanitation must be adhered to.
3. Transport facilities must be linked to the locality.
4. Adult education must be followed for fishermen and women.
5. Co-operative credit societies must be opened with the self help group of women folk of the community.
6. To fight against the natural calamities and sustain the environment for their smooth livelihood, basic knowledge from disaster management group must be imparted.
7. To cope with the wave of globalization and modernization the fisher community must be trained to handle both the traditional and intermediate technology in their profession.
8. Above all, government and non-government organizations must encourage, motivate and explain the benefits of schemes more convincingly. Let them feel that the programs are meant for them only.



**CONCLUSION:**

The present study has given a vivid picture of fisher community of Odisha that they need a helping hand badly either from Government machinery or from NGOs, so that they could break the vicious circle of poverty that they have been for a long time. To build confidence and inculcate the beauty of programs, schemes into the community and also bring them close to the mainstream of the middle affluent society of the state, it is very much pertinent on the part of the government to provide them education, health care facility, transportation and communication with humane touch. It is also understood that education coupled with banking facilities with cheap credit will enhance their confidence towards a life of achievement in the days to come.

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## A Study of Receivables Management in Select Companies of Indian Automobile Industry

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### Abstract

The automobile industry in India is one of the largest industries and a key sector of the economy. A firm's profitability is determined partly by way of its working capital management. An efficient management of receivables will yield significant results and its neglect can be highly dangerous to any firm. A sample of three companies was selected for this study and data for this study were collected for a period from 2009 to 2013 to analyse whether the sample companies really managed their receivables or not. The study used Ratio Analysis and ANOVA as tools to find out the efficiency of Receivable Management during the study period. The study found out that the select companies of Automobile Industry in India efficiently managed their receivables.

**Keywords:** Receivable management, Automobile industry, Receivable to current asset ratio, Receivable to total asset ratio, Receivable to sales ratio, receivable turnover ratio, etc.

### Introduction

The fundamental challenges for all businesses are creating value by optimizing cash flow, profitability and customer service. In the event of credit sales, the sundry debtors are one of the significant and major components in the Receivables Management. The objectives of Receivable Management are to increase the volume of sales, to ensure credit worthiness or financial soundness of the concern and to measure the effective handling of accounts Receivables. In a business concern, the accounts receivable is considered to be the most important aspect of financial planning and control next only to inventories and cash. .

The term receivable is defined as; 'debt owed to the firm by customers arising from sale of goods or services in the ordinary course of business.' (Joy, O M) Economic conditions and the firm's credit policies are the chief influences on the level of receivables. Finance manager has to keep the trade-off between profitability and risk. The objective of receivables management therefore is to have a trade-off between the benefits and costs associated with the extension of credit. The benefits are increased sales and anticipated increased profit / incremental contribution. (Khan & Jain) The major costs are collection costs, capital costs,

delinquency costs and default costs. The firm should consider only the incremental benefits and costs that result from a change in the receivables or trade credit policy. The management of receivables involves crucial decision in three areas; credit policies, credit terms and collection policies. The framework of analysis of all the three decision areas in receivables management is to secure a trade-off between the costs and benefits of the measurable effects on the sales volume, capital cost due to change in investment in debtors, collection costs, bad debt and so on. The firm should select an alternative which has potentials of more benefits than the cost. A well-developed transportation system plays a key role in the development of an economy and India is no exception to it. With the well-developed transportation system the auto industry of India is also growing at rapid speed, occupying an important place on the canvas of Indian economy. The Receivables, the key element of working capital, usually push up business revenue and help to earn profit. But they also affect liquidity and also increase chances of bad debts. It is to be noted that maximizing sales is possible only through credit sales. When firms do more credit sales, there is also the possibility of funds being locked up as Receivables in the total Current Assets. Hence the Receivable Management is a real challenge that needs to be tackled. Under these circumstances, this study was conducted to test how best the Indian automobile companies were able to manage these challenges to realise better Receivable Management.

### **Review of literature**

An attempt has been made to review the research works already undertaken in the area of Receivable Management to understand research gap and methodology adopted by earlier researchers. A review of selected studies has been given under.

The short term finance i.e. working capital management holds an important place in the theory of finance. A large number of models, theories and technique (Baumol 1952, Beranek 1963, Haske Benshay 1965, Haley and Higgin 1973, walker 1964 and Krause 1974; have been developed in the past towards the optimal allocation of funds, Efficient utilization of working capital has a direct bearing on profitability and liquidity. Ioannis Lazaridis and Dimitrios Tryfonidis (2002) examined the relationship between corporate profitability and working capital management. The study used a sample of 131 companies listed in the Athens Stock. The study showed that there were significant returns between profitability, measured through gross operating profit, and the cash conversion cycle. It is found that the manager should be efficient enough in handling the cash conversion cycle and keeping optimum level of account Receivables, account payables and inventory. Ron Gruendl (2006) Mellon Global Cash Management, a payments industry leader considered it as synonymous with quality performance.

Hitesh and Shukla J (2007) examined the Receivable Management of sample companies using working capital ratios and ANOVA test. The authors found that there was significant relationship between and within the groups of the sample companies. The study found that the pharmacy industries were efficient in managing their Receivables. Cash and Working Capital Management, by KPMG international group (2007), have noted that the main work of financial manager is to work with management to help and generate cash and embed a cash culture within the business. They have suggested that working capital cycle reviews to help identify process and control opportunities for improvement, detailed balance sheet review for cash generation opportunities, hands-on assistance in implementing opportunities, development and transfer of skills to the management team, Design of enhanced cash reporting. Bhattacharya (2003) in Indian context observed that an average Indian company maintained twenty six percentages of receivables to total assets that is higher than the suggested standard and that of USA based manufacturing firms. India.

S. Benjamin Christopher and A.L.Kamalavalli (2009) examined the relationship between working capital management and corporate profitability of 14 sample corporate hospitals in India by using panel data analysis for the period 1996-97 to 2005-06. The analysis of correlation revealed that eight variables were significantly associated with ROI. From regression analysis, it was evident that an increase of one unit in current ratio, cash turnover ratio, Current Assets to operating income and leverage decreases the profitability.

Khandelwal (1985) investigated that working capital management process and practices among small-scale industry in the state of Rajasthan, between 1975-76 and 1979-80, revealed that the management of receivables was highly ineffective and disorderly. It was also found that receivables were about fifty percentages of total current assets in this industry. It was also observed that the reasons behind the sickness of units were inefficient management of working capital. Oppedahl and Richard (1990) had examined in many studies that receivables management was a neglected area that affects the decisions of working capital management. In conclusion one may find that receivables management is found disorganized in the financial management of corporate world. Considering this fact that automobile industry is poised for unprecedented growth, it is relevant to examine the trends of receivables management in the light of various developments taking place in the economy.

### **Research method**

The scope of above research can be extended to other sectors of economy, industry. One can find independent studies on working capital management of the manufacturing firms in India. This work is an attempt to study receivables management of automobiles in some selected units in India. The main purpose of this paper is to analyse the important dimensions



of the efficient management of receivables within the framework of a firm's objectives of value maximization. The study attempts to analyse the efficiency of receivables management in terms of receivables' turn over along with critically examining the percentage of receivables to current assets, total assets and sales. In order to meet the objectives of the study, three units of the industry based on their sales were considered for the study. They are Maruti Udyog Ltd, Tata Motors Ltd and Hindustan Motors Ltd. This study has used two way ANOVA analyses along with necessary ratio analysis. The period of the study was from 2008-09 to 2012-13 i.e. five years. Data were collected from secondary source such as the annual reports of the sample companies.

### Hypotheses of the Study

The present study tested the following two null hypotheses.

- H1: There is no significant difference in the ratios of Receivable Management within the groups of sample companies.
- H2: There is no significant difference in the ratios of Receivable Management between the groups of sample companies.

### Analysis and Interpretation of Data

#### Receivables to Current Assets Ratio

Receivables as a percentage of current assets would reveal the size of receivables in current assets and the opportunity cost associated with the same; higher the percentage, higher the cost of carrying the receivables. It is therefore desired that a firm needs to carry the least percentage of receivables as possible without affecting the sales volume. This ratio is calculated as  $[(\text{closing receivables} / \text{current assets}) * 100]$ . Table-1 provides the ratios of receivables to current assets of the sample companies.

**Table No-1**  
**Receivables to Current Assets Ratio**

Years	Maruti Udyog	Tata Motors	Hindustan Motors	Mean
2008-09	17.02	16.04	11.01	14.69
2009-10	21.65	16.94	7.71	15.43
2010-11	14.64	13.48	11.54	13.22
2011-12	8.95	20.56	14.91	14.81
2012-13	13.35	17.93	16.98	16.09
Mean	15.12	16.99	12.43	14.85
ANOVA				

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	13.66189	4	3.415473	0.178804	0.943042	3.837853
Columns	52.54981	2	26.27491	1.375518	0.30659	4.45897
Error	152.8146	8	19.10182			
Total	219.0263	14				

The above table reveals that Tata Motors has large amount of receivables as a part of current assets, followed by Maruti Udyog and Hindustan Motors. Table also provides the two-way ANOVA result. Looking at the data of within the group, calculated value of F (0.178) was lesser than the critical value of F (3.837) that leads to the conclusion that there was no significant different in the ratios of receivables to current assets within the group. Data makes us clear that calculated value of F for between the group (1.375) was lesser than critical value of F (4.458), that leads to the conclusion that the there was no significant different in the ratio of receivables to current assets of the sample companies.

### Receivables to Total Assets Ratio

Another indicator of effective management of receivables, i.e. the percentages of receivables to total assets is found out using the following formula =  $[(\text{closing receivables} / \text{total assets}) * 100]$ . Receivables to total assets ratio of the sample companies is presented in Table-2.

Table No-2 shows that Hindustan Motors has best performance of receivables to total assets. It was followed Maruti Udyog and Tata Motors. It was found that that Tata Motors has higher percentages of receivables to total assets. The two-way ANOVA result for the ratios of receivables to total assets shows that F calculated for within the group (0.065) was lesser than that of the critical value (3.837), which suggests that the ratio of receivables to total assets has no significant difference within the group.

It was also found that calculated value of F for between the groups (0.189) was lesser than that of the critical value (4.458), that leads to the conclusion that the ratio of receivables to total assets has no significant difference across the sample.

Years	Maruti Udyog	Tata Motors		Hindustan Motors			Mean
2008-09	6.97	4.17		3.43			4.86
2009-10	5.03	8.26		2.52			5.27
2010-11	4.97	6.79		4.63			5.46
2011-12	4.36	4.99		5.49			4.95
2012-13	5.42	3.48		7.75			5.55
Mean	5.35	5.54		4.76			5.22
ANOVA							
Source of Variation		SS	Df	MS	F	P-value	F crit
Rows		1.131893	4	0.282973	0.065837	0.990475	3.837853
Columns		1.629693	2	0.814847	0.189585	0.830914	4.45897
Error		34.38451	8	4.298063			
Total		37.14609	14				

### Receivables to Sales Ratio

Receivables to sales ratio indicates the amount of receivables held by the business firm as a percentage of sales during a particular period.

**Table No-3**  
**Receivables to Sales Ratio**

Years	Maruti Udyog	Tata Motors	Hindustan Motors		Mean		
2008-09	4.61	6.06	2.71		4.46		
2009-10	2.9	7.77	2.25		4.31		
2010-11	2.56	5.59	3.27		3.81		
2011-12	2.86	4.99	3.98		3.94		
2012-13	3.45	4.06	2.86		3.46		
Mean	3.28	5.69	3.01		3.99		
ANOVA							
Source of Variation		SS	Df	MS	F	P-value	F crit
Rows		1.923907	4	0.480977	0.383567	0.814759	3.837853
Columns		21.82961	2	10.91481	8.704293	0.009827	4.45897
Error		10.03165	8	1.253957			
Total		33.78517	14				

The main purpose of this ratio is to work out the efficiency of receivables management in the business organization. High ratio indicates that the business firm is doing business with huge debtors and vice versa. Higher the sales and lower the debtors indicate that the company has a good collection system. This ratio is calculated as =  $[(\text{closing receivables} / \text{sales}) * 100]$ .

The ratio of receivables to sales of the sample companies is presented in Table-3

Above data makes it clear that the amount of receivables as percentage of sales across the industry on an average was the lowest of 3.46 in the year 2013 and the highest was 4.46 in

the year 2009. Hindustan Motors was the more efficient by holding less amount of investment in receivables as percentage of sales while compared to the others in the industry. Two-way ANOVA result for the ratios of receivables to sales of sample companies were, F calculated between the groups (0.38) was less than that of the critical value (3.84) that leads to the conclusion that the receivables to sales ratio within the group of sample companies were same. While looking to the calculated value of F for within the group was 8.70 against the critical value of 4.46. It was respect fully submitted that the receivables to sales ratios between the sample companies differ significantly.

### Receivables Turn Over Ratio

Receivables turn over ratios measures the liquidity of debtors of a business firm and average collection period. It indicates the average time lag in days between sales and collection thereof. Debtors' velocity indicates receivables management efficiency rate. Higher receivables turnover and lower debtor collection period reflect the firm's ability of managing a larger volume of business without corresponding increase in receivables and vice versa.

This ratio is calculated as; Receivable turnover ratio in times = (sales / average' receivables). The average receivable is calculated as = [(opening, receivables + closing receivables) / 2]  
Receivables turnover ratio is presented in Table-4

**Table No-4**  
**Receivables to Turn Over Ratio**

Years	Maruti Udyog	Tata Motors		Hindustan Motors		Mean
2008-09	29.10	19.11		19.18		22.46
2009-10	36.56	11.61		39.63		29.27
2010-11	40.69	17.5		38.26		32.15
2011-12	35.97	11.33		23.93		23.74
2012-13	34.63	12.38		35.83		27.61
Mean	35.39	14.39		31.37		27.05
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Rows	189.6374	4	47.40936	1.389677	0.319943	3.837853
Columns	1242.802	2	621.4008	18.21468	0.001051	4.45897
Error	272.923	8	34.11538			
Total	1705.362	14				

The receivables turnover of the sample companies varied in between 22.46 to 29.27 (times) during the period of study. The overall average ratio of the industry was 27.05 times. Maruti Udyog has the highest receivables turnover ratio. It shows the efficient receivable management to achieve higher turnover. Two way ANOVA result for the receivables turn over ratios of the sample companies shows that the calculated value of F for within the group was 1.39 while the critical value was 3.84, it leads to the conclusion that there was no significant difference between the ratios of sample companies. While looking at the data of between the groups, calculated value of F (18.21) is higher than that of the critical value (4.46) means, there was significant difference between the ratios of sample companies.

### Conclusion

This study divulges that the level of receivables to current assets ratio of the industry was found 14.85 percentages. While looking at the receivables to total assets this industry has about 5.22 percentages of receivables against total assets. The data of receivables turnover of the industry, it was about 27.05 times in a year. The study reveals the level of investment in receivables as a percentage of sales was only 3.99 only. The present study found that the level of Receivable Management in the select companies of Automobile Industry during the study period was fairly good. The overall analysis indicates the fact that the performance of the companies in the Automobile Industry in respect of Receivables Management was satisfactory.

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## Derivatives Market in Emerging Asia: The Current Status and Challenges

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### Abstract

Derivative products like futures and options have become important instruments of price discovery, portfolio diversification and risk hedging in recent times. With more and more capital being dedicated to emerging market equity, the derivatives market play important role in this context. Derivatives market in countries like India and China operate in emerging economy. Emerging markets are characterised by low transaction values, high concentration of market capitalisation and low liquidity. There are several market anomalies that affect option and future prices. Volatility of stock markets are greatly affected by introduction of derivative products. Some new derivative products have come up in the emerging markets for risk reduction in investment. The conceptual study aims at examining the present status of derivative trading and the new derivative products that have come up in the emerging markets of Asia. It also examines the challenges the emerging countries are facing to make the derivative trading more systematic and transparent.

**Key Words-** Derivatives, Emerging Markets, Hedging, Market capitalisation

### Introduction

The need to create some financial instruments that will allow investors to hedge and thus to be secured from price fluctuations has given birth to concept of derivatives. The introduction of derivatives such as futures and options gave financial managers the ability to create efficient portfolios in order to benefit from price fluctuations. Derivative products like futures and options have become important instruments of price discovery, portfolio diversification and risk hedging in recent times. A derivative is a financial instrument whose value is derived from other underlying security or basket of securities. Using these extremely flexible instruments, the traders can assume highly leveraged positions at low transaction cost. Emerging markets are nations with social or business activity in the process of rapid growth and industrialisation. Emerging markets are characterised by low transaction values, high concentration of market capitalisation and low liquidity. Emerging markets now need to start addressing second-generation capital market development issues. These are: developing financial intermediaries that have professionals

with financial sector skills; enhancing domestic institutional investor base in addition to foreign investors; providing self-regulatory organizations; and developing mechanisms for investor protection. More importantly, risk management at all levels of the financial structure is extremely important, but is severely lacking in emerging markets due first to the scarcity of derivative instruments and second, where the derivative markets are already functioning, because of failure to generate liquidity. International efforts to reduce systemic threats in financial markets face unusual challenges from over-the-counter derivatives in Asia. Though the volume of derivatives trading in Asia is modest compared with that in other nations and regions, its extraordinary growth implies substantial risk — particularly given the uneven regulation in the many jurisdictions in which the trading occurs.

The conceptual study aims at examining the present status of derivative trading and the derivative products that have come up in the emerging markets of Asia. It also examines the new challenges the emerging countries are facing to make the derivative trading more systematic and transparent.

### **Findings and Analysis**

Many Asian financial derivatives market are still in the very early stage of development. The two top financial centres in the region, Hongkong & Singapore, have the most advanced derivatives market with least regulation, while at the other end of the spectrum are China, Pakistan, Indonesia who lag behind most of their Asian neighbours.

### **Hong Kong**

Hang Seng Index (HSI), the bench mark of Hong Kong stock market is one of the best known indices in Asia. From 2012 onwards sensex index futures are traded in Hong Kong stock exchange. The HIS volatility index (VHSI) futures are innovative tools for investors to manage volatility risk in Hong Kong stock market. Interest rate swaps represent the largest segment of interest rate derivatives transactions in Hong kong. HKD swaps are among the widest in Asia. In April 2010, the HKMA conducted regular triennial survey of the turnover in Hong Kong FX and OTC currency and interest rate derivatives market as part of the global survey co-ordinated by the Bank of International settlements (BIS). According to it Hong kong is the sixth largest centre of FX activity and the seventh when interest rate derivatives are included. The US dollar continued to be the most heavily traded currency in the Hong Kong FX market, being used on one side of 95.6% of all transactions in April 2010.

Average daily net market turnover of FX and interest-rate derivatives in emerging countries of Asia

Economy	FX Market- April 2010	Interest-rate derivatives April 2010
Singapore	266	78
Hong Kong SAR	238	18
Korea	44	11
India	27	3

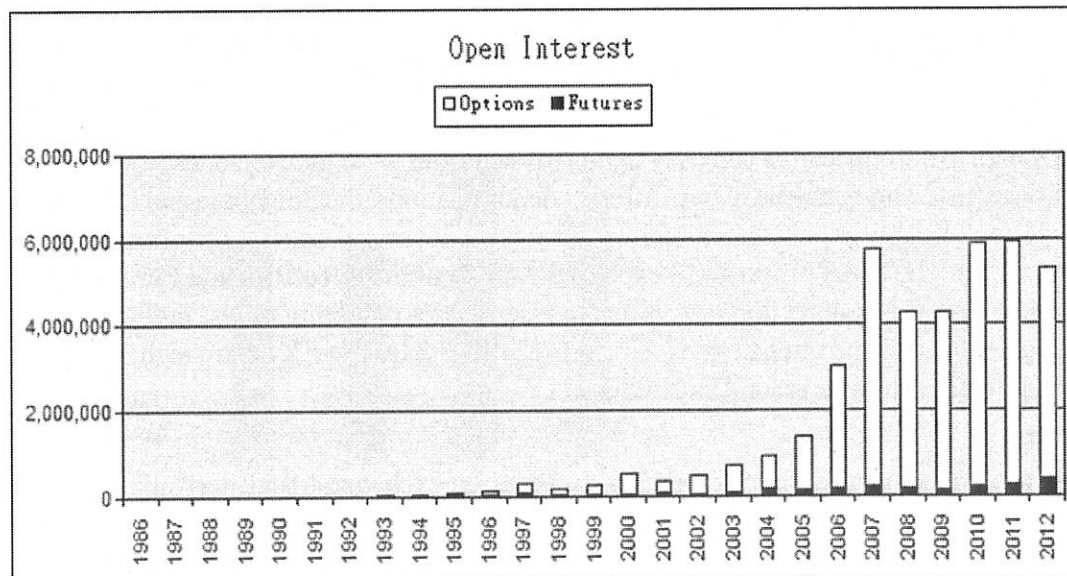
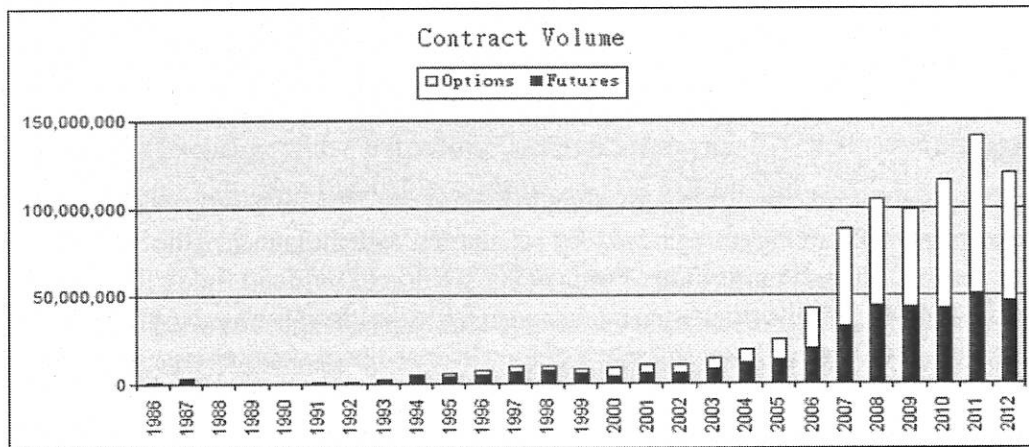
## Notes:

1. Data are adjusted for local inter-dealer double counting ("net-gross" basis).
2. Beginning with the 2010 survey, "foreign-exchange market" is redefined as including all five foreign-exchange instruments: spot, outright forwards, FX swaps, currency swaps and currency options.
3. Figures may not add up to total because of rounding.

## Source: BIS

The open and sizable OTC derivatives markets in Hong Kong and Singapore are bellwethers for the region. Hong Kong and Singapore have been especially sensitive to expansion opportunities by permitting the use of non-local CCPs that use similar trading and clearing standards, and taking a flexible approach to trade repository arrangements while mandating basic local requirements. The Depository Trust & Clearing Corporation has established a pan-Asian trade repository that is being offered to the markets in the region. Hong Kong plans to revamp Hibor, the Hong Kong equivalent of Libor, in the wake of the derivatives scandal that ended with a \$464 million fine for Barclays. In September 2009, the G20 group of countries agreed that standardised OTC derivatives should be centrally cleared and, where appropriate, traded on exchanges or electronic platforms by the end of 2012 in an effort to enhance regulatory oversight and mitigate counterparty transaction risk. Hong Kong Exchanges and Clearing (HKEx) will begin clearing over-the-counter derivatives in April 2013. The Hong Kong bourse is positioning itself for more derivatives hedging instruments such as renminbi-denominated interest rate swaps and more innovative products like the deliverable CNH interest rate swap.

## Yearly Statistics - Futures and Options



Source: Hong Kong Stock Exchange

Hong Kong Exchanges and Clearing Limited (HKEx) introduced renminbi (RMB) currency futures on 17 September, 2012. The US Dollar vs Renminbi (Hong Kong) or USD/CNH\* Futures contract is the world's first deliverable RMB Currency Futures.



### Yearly Statistics - RMB Currency Futures - USD/CNH Futures

year	Total contract volume	Open interest
2012	20277	3673
2013(up to 04 19)	30274	4178

#### Singapore

SGX offers Asia's broadest range of derivatives. In interest rate derivatives Singapore maintains its dominant position among emerging market economies. With the launch of the SGX Nikkei stock average Dividend point Index Futures (SGX Nikkei Dividend Index Futures), the Singapore Exchange is the first Asian exchange to trade dividend futures contracts. It also benefits from the Central Counter-Party facility which removes counter-party credit risk. SGX-DC is now a Qualifying CCP (Central Counterparty). The SICOM market is recognised as the world's price discovery centre for natural rubber. Singapore is the world's top bunkering port and the world's third largest oil trading centre. The existing underlying physical trading and its associated risk management activities provide a good basis for the launch of a fuel oil futures market to serve the trading and risk management needs of the oil trading, bunkering and shipping market participants. The SGX Fuel Oil 380cst Futures contract is developed based on Residual Marine Grade ISO 8217. The contract will be electronically traded on SGX Quest.

SGX plan to introduce dual currency trading of securities — Which includes stocks, bonds and other listed investments in two different denominations, the Singapore and US dollar. , Singapore, has been the latest market to address the leverage associated with margin FX (and CFD). The MAS proposes to expand the scope of the Securities and Futures Act to regulate over-the-counter derivatives on the asset classes of commodities, credit, equities, foreign exchange and interest rates. Singapore is the 5th largest FX centre in the world, its average daily volume is around \$50 billion.

#### Korea

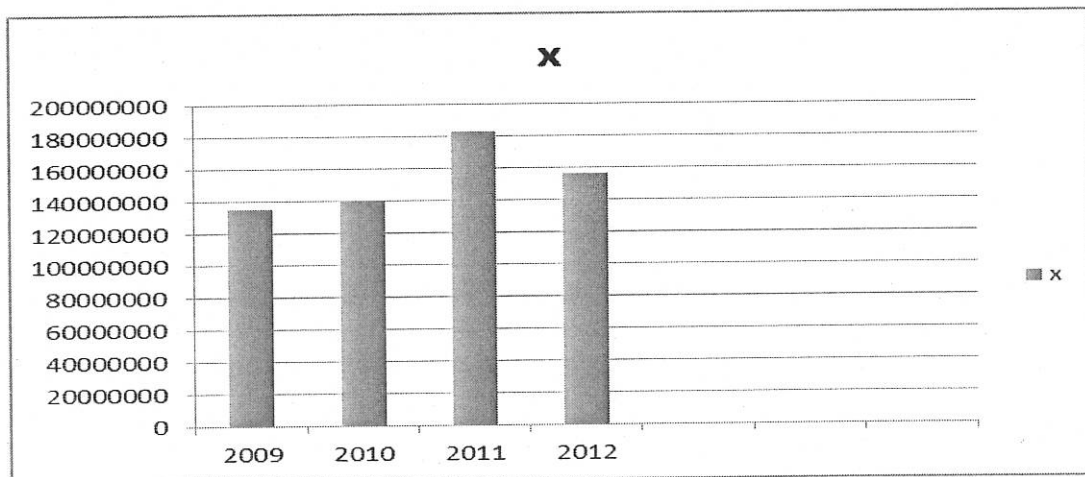
Korea is a major centre among emerging countries for exchange-traded derivatives with \$2 billion daily turnover in FX and \$8 billion in interest rate derivatives in April 2010. According to the data compiled by the Korea Exchange (KRX), the average daily turnover of South Korean derivatives came at 51.6 trillion won (US\$46.4 billion) through April 25th 2013, down 5.5 percent from 2012. Turnover in the derivatives market in South Korea could be reduced by a large percentage if a proposed new transaction tax on derivatives is approved. KRX on Mar.30,2012 launched Petroleum Trading Market. Compared to bond futures, turnover in interest rate swaps is relatively small and volatile in Korea.. The Korean IRS market is highly driven by technicals. To stem the tide of the quickly appreciating won,

South Korea is curbing exposure to currency derivatives. Banks will be allowed to hold 30 percent of their total equity, a ten percent decrease. Foreign bank subsidiaries will now be allowed to hold FX positions of 150 percent, down fifty percent from the previous rule. Korea's exchange-traded derivatives market has the largest transaction volume in the world, but its OTC derivatives market is tiny. The country is in the process of passing legislation to implement G20 guidelines but has not yet fixed its rules, and it has tasked the clearing house of the Korea Exchange with the creation of central clearing for OTC derivative products. For now, it is likely to impose mandatory clearing only on Korean Won interest-rate swaps.

### Taiwan

The Central bank of China manages the currency via capital controls and direct intervention which is supported by its substantial FX reserves. Liquidity in the Non Deliverable Forward (NDF) market is relatively good. TAIEX trades 10 year ROC book-entry govt. bonds maturing in not less than 8 years and 6 months, but not more than 10 years from the expiration of futures contract. It also trades in 30-day commercial paper interest rate futures.

#### Total annual trading volume of Futures and Options in TAIEX



Taiwan is looking forward to design contracts for difference (CFDs) in future. Taiwan has not tried to position itself as an OTC derivatives market due to capital and related market restrictions. The Gre Tai Securities Market, the exchange and industry-backed interest-rate and bond-derivatives exchange in Taiwan, will establish a trade repository covering all asset classes, and the Financial Supervisory Commission will require mandatory daily reporting of all OTC derivatives transactions. Work is ongoing with respect to mandatory central clearing.

## Malaysia

Bursa Malaysia Derivatives (BMD) offers 3 categories of derivatives: Commodity Derivatives, Equity Derivatives and Financial Derivatives. Its main product is the Crude Palm Oil Futures contract (FCPO) which is the global price benchmark for the palm oil industry. Financial derivative products are based on the Malaysian short-term interest rate instruments that are traded in the money market. The interest rate and bond futures products mainly refer to the underlying 3-month KL Interbank Offered Rate (KLIBOR) that is traded in the underlying money market.

In 2010 Bursa Malaysia Derivatives (BMD), a subsidiary of Bursa Malaysia Berhad, made partnership with the Chicago Mercantile Exchange (CME) Group in developing initiatives jointly towards the growth and internationalisation of the Malaysian derivatives market. The notional trading value on the derivatives market is expected to grow rapidly from RM512 billion in 2010 to RM4.2 trillion in 2020 with positive spillover effects for stock market liquidity. In April 2010, BMD received the central bank's (Bank Negara Malaysia) approval for the relaxation of the Foreign Exchange Administration Rules. In May 2010, the U.S. Dollar-denominated futures contract in Crude Palm Oil (CPO) was launched on CME GLOBEX®. Comparing the first five months of 2011 to the first five months of 2010, total derivatives volume have increased by 48.9% amounting to around 1.2 million contracts traded. Open position has risen to around 152,000 contracts as at end-May 2011 from 132,000 contracts at the end of 2010. Malaysia's central bank, Bank Negara Malaysia, is liberalizing its FX and interest rate derivatives markets.

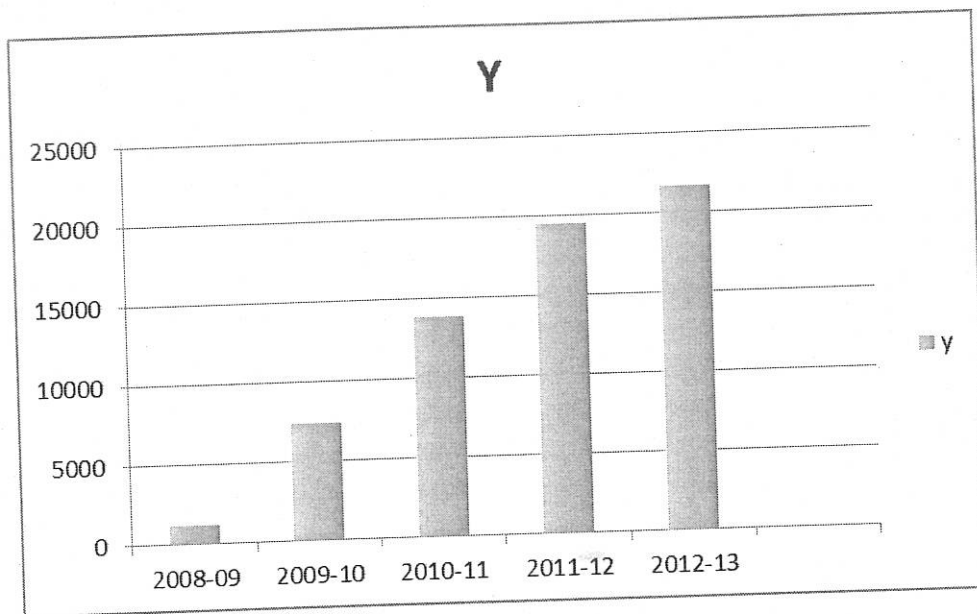
## China

Despite becoming a major player in global commerce, Chinese economy remains relatively closed. The Shanghai Futures Exchange widens trading bands and link margin requirements with daily price-movement limits as the European debt crisis and weak global growth causes increased volatility. Singapore Exchange (SGX) and China Financial Futures Exchange (CFFEX) have signed a Memorandum of Understanding (MOU) to cooperate in the development of the derivatives markets in China and Singapore. Mature financial futures market is needed in China. The 3-year-old index futures market opened in April 2010, is still limping along without making much of an impact on the stock market. The volume of trading in index futures is tiny compared to the size of the stock market. Index options are not traded in CFFEX. In a move apparently to inject new life into the market, the authorities earlier said they would open the market to QFII investors, including some of the largest global financial institutions. But it remains doubtful if these big fish are willing to play in a market that is too illiquid to do much meaningful hedging. CHINA is ready to launch government bond futures in near future as it expands the scope of financial derivatives allowed to trade on the domestic

market. Turnover on China's futures market reached 171 trillion yuan (27.21 trillion U.S. dollars) in 2012, an increase of 24.44 percent from a year earlier, industry data showed. More than 1.45 billion transactions took place on the country's futures market last year, up 37.6 percent from the previous year, according to latest data from China Futures Association. Among China's four major futures markets, the China Financial Futures Exchange recorded the greatest turnover in 2012, followed by the Shanghai Futures Exchange, the Dalian Commodity Exchange and the Zhengzhou Commodity Exchange. In another major sign that China is opening to forex trading, Chinese State Administration of Foreign Exchange (SAFE) has allowed Yuan options trading from April 1st, 2011. China has taken an active role in discussions of OTC derivatives before the FSB and the International Organization of Securities Commissions. It is working to adopt new requirements, but its market for the products is still relatively small and its infrastructure development is still at an early stage. The Shanghai Clearing House, which was established in 2009, is not yet fully operational, and standardization in China has made little progress. China plans to launch its international payment system, known as CIPS, in 2014.

## India

The National Stock Exchange of India Limited (NSE) commenced trading in derivatives with the launch of index futures on June 12, 2000. The futures and options segment of NSE has made a mark for itself globally. In the Futures and Options segment, trading in S&P CNX Nifty Index, CNX IT index, Bank Nifty Index, Nifty Midcap 50 index and single stocks are available. Trading in Mini Nifty Futures & Options and Long term Options on S&P CNX Nifty are also available. On August 29, 2011, National Stock exchange launched derivative contracts on the world's most followed equity indices, the S&P 500 and the Dow Jones Industrial Average. This was the first time that derivative contracts on global indices are available in India. This is the also the first time in the world that futures contracts on the S&P 500 index were introduced and listed on an exchange outside of their home country, USA. The new contracts include futures on both the DJIA and the S&P 500, and options on the S&P 500. The first day volumes at the close of trading on August 29, 2011, on the 2 indices in futures and options contracts was nearly Rs 122 crores (1220 million). On May 3, 2012, The National Stock exchange launched derivative contracts (futures and options) on FTSE 100, the widely tracked index of the UK equity stock market. This was the first of its kind for an index of the UK equity stock market to be launched in India. NSE recorded a volume of 500 crores (5000 million) on the 1st day of trading. Interest Rate derivatives (IRD) introduced on NSE from 2009, offers futures contracts on 10 Year Notional Coupon-bearing Government of India (GOI) security (10YGS7) and the recently introduced (2011) 91-day Government of India (GOI) Treasury Bill.



Y=Avg.daily turnover of currency futures and options at NSE in( Rs.crores)

A new generation stock exchange, MCX-SX currently offers a world-class electronic trading platform in currency futures contracts. The average daily turnover (ADT) of MCX-SX currency futures stood at Rs 12,927.83 crore at the end of June 2012.

A Cash Futures Spread(CFS) is a new facility being introduced in BSE'S derivative segment. It consists of two legs such as one equity segment leg and second shall be the futures instrument with a view to derisking arbitrage between future and cash segments. Indian OTC derivatives markets still remains small because credit default swaps were conspicuously absent in India until now. The markets for interest rate swaps (in the category of interest rate derivatives) and foreign currency forwards (in the category of foreign currency derivatives) enjoy significant position in the Indian OTC space. New OTC foreign exchange rules came into play in early 2011. Concerns in India relate largely to a lack of interconnectedness with foreign markets and counterparties in what is otherwise a quite global market.

Global investors have easier access to the BRICS markets through benchmark equity index derivatives, now offered in local currencies on BM&FBOVESPA, MICEX-RTS, the BSE Ltd, Hong Kong Exchanges and Clearing Limited and the Johannesburg Stock Exchange ("the BRICSMART products"). Interest rate derivatives in emerging markets are distinguished by the outsized growth of turnover in the Korean won, which in 2010 constituted more than one quarter of all turnover of interest rate derivatives in emerging markets. There is a shift in



Asia's OTC derivative markets. The proliferation of Central Counterparties (CCPs) and trade repositories being set up in Asia may risk fragmentation, and may hamper monitoring of systemic risks as regulators may see only their own segments of the market. Market participants will also face additional costs if CCPs and trade repositories lack economies of scale. Besides risk management, technology can be useful in developing liquidity in Asian markets. An estimated 80% of trades are executed in electronic platforms in developed country FX markets, whereas 85% of FX trades in Asia are still executed by voice. The RMB market will potentially play a transformational role in Asian finance. The greater acceptance and use of the RMB as a trade settlement currency, there will also be important implications for the interactions between China and Asia's financial markets, and indeed for global financial markets.

## Conclusion

The largest emerging market derivatives markets in Asia are now located in Korea, Hong Kong and Singapore. About half of the derivatives turnover in emerging markets occurs over the counter, compared to one third in advanced economies. FX derivatives are by far the most commonly traded. Growing local bond markets and the rapid accumulation of FX reserves highlight the potential for active intra-regional local currency bond investment in Asia. Although many Asian countries have recently launched an array of derivative products, virtually none of them has good liquidity. Generally, investors would welcome a simple and straightforward product. In those countries, focusing on a few liquid products might be more effective in accelerating market development.

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## INNOVATION IN MICRO ENTREPRENEURSHIP

### A case Study of Islamic microfinance

**\*Sk. Zakir Hossen**

#### ABSTRACT

Different definitions were given to what we call Micro entrepreneurship; most of researchs link it with microfinance, self-employment and microenterprises development. However, it is globally admitted that micro entrepreneurs are the owners of very small businesses with very low start-up costs such as: home-based businesses, bakeries, beauty shops, repair shops, arts and crafts shops, fish men, family-owned shops, etc. The experience of the last two decades in many countries has emphasized the importance of supporting such type of entrepreneurs to start and grow is fundamental for the diversity and the social development in emerging economies.

The most challenging needs facing the development of Micro entrepreneurship, is the need to develop innovative socially-oriented banks that care about the "unbankable" segment of the society. Family Bank is considered to be one of the "social business" which are based entirely upon the partnership as well as social corporate responsibility (CSR) of private sector.

Family Bank is established as the 1st Islamic microfinance bank in Bahrain with the prime objective to contribute to poverty alleviation and socio-economic empowerment through the provision of sustainable Islamic financial services to the underserved. The Family Bank is currently acting as a mechanism to guide and maintain programs aiming at enhancing micro entrepreneurs' capabilities through training, counseling, marketing support as well as finance within a comprehensive approach.

The present paper discusses the main concepts of the Micro entrepreneurship as well as different perceptions of microfinance and microenterprise developed and industrialized countries. It provides a brief description of the family bank as an Islamic microfinance social bank aims to support micro entrepreneurs to grow and develop their business beyond

microenterprise level in order to contribute to the socio-economic development of Bahraini society by creating jobs, economic assets, and spreading the benefits of the economic growth.

**Keywords:** *Shariah (Islamic Law), Social entrepreneurship, Social development, self employment & Poverty alleviation.*

## 1. INTRODUCTION:

The world is now facing one of the most important challenges that has ever had. In the midst of an expanding socio-economic crisis, the likes of which the world has not known since the Great Depression, the ILO's preliminary estimates are that world unemployment could rise by 20 million reaching over 210 million during of 2009, Juan Somavia, (2008). Furthermore, the already poor are likely to see their very low incomes squeezed further by still high food and fuel prices. As a result of the food and fuel crises, the number of extremely poor was estimated to have increased by at least 100 million. Informal activities and involved workers will increase. Middle classes throughout the world are also affected and uncertain, concerned particularly about the future of their pension systems, unemployment benefits and access to healthcare. As this situation in the world jeopardizes the efforts done for poverty alleviation, it gives another important dimension for the self-employment and microenterprise development programs.

Already ninety per cent of the world's self-employed poor – more than a billion people – lack access to basic financial services as explained by Richards (2006). In a country like Indonesia, more than 90% of its 50 million small businessmen have no access to regular bank financing (Soraya Permatasari, 2010). Hassan and Alamgir (2002) maintain that the roots of poverty lie in that the poor are systematically disorganized by economic, social and political relationships within which they are caught. The only long-term solution to the problem of poverty, therefore, lies in assisting the poor to challenge the relationships that improvised them. Micro entrepreneurship plays a key role herein allowing the poor to unleash their potential and go beyond their dependence on welfare and social aides investing to create their own employment and/or income generating activities.

While, conventional microfinance has been effective at supporting and uplifting the living conditions of the poor in many countries, it is not fully satisfying the cultural and spiritual aspirations of others. In some Muslim communities, conventional interest based microfinance has always been rejected due to its non-compliance with the Islamic principles, particularly on the issue of paying of interest or *riba*, which is forbidden. Moreover, Islamic microfinance

has one major advantage, namely risks are shared between financial institutions and beneficiaries, which allow entrepreneurs to concentrate on what they do best. At the same time, the disbursement of collateral-free loans in certain instances reflects the sharing of common objective between financiers and enterprises, thus advocating entrepreneurship.

Family Bank is established as the 1<sup>st</sup> Islamic microfinance bank in Bahrain with the prime objective to contribute to poverty alleviation and socio-economic empowerment of the communities it serves through the provision of sustainable Islamic financial services to the underserved.

## 2. OBJECTIVES:

The main objective of the present paper is to evaluate the potential of family bank as a micro entrepreneurship development catalyst and its contribution to the Bahraini society by creating wealth, economic assets, and jobs.

## 3. METHODOLOGY:

The data used has been collected from various secondary sources like books, journal, newspaper, & internet. The accuracy of the study is limited to the accuracy of these sources.

## 4. TENANTS OF ISLAMIC FINANCE:

Islamic finance is an elaborate financial system based on the rules of Islamic law. According to Islamic financial systems, in order for a transaction to be deemed in accordance with the *Shari'ah* (Islamic Law), it must adhere to the following basic tenants:

- **The prohibition of interest:** Interest or *riba* is prohibited in all financial transactions. This is because interest is a “cost that is accrued irrespective of the outcome of business operations and may not create wealth if there are business losses” (Iqbal 1997, p.43). Islamic finance demands that lenders share in clients’ rewards and losses.
- **Risk-sharing:** Due to the fact that interest is not utilized in Islamic banking, the creditor and the borrower operate as partners and share in both the risks and returns of an investment.
- **Money is potential capital and is not a commodity in itself:** Islam’s view on money is that it is not an asset in itself and that it only becomes capital when it becomes utilized with other resources to “undertake a productive activity” (Iqbal, 1997, p.43).
- **Prohibition of speculative behavior:** Speculative behavior that encourages transactions with extreme uncertainties, gambling and risk is strictly prohibited.
- **Investments must comply with the shari’ah:** For example, investments in alcohol, gambling, and other activities against the tenants of the *Shari'ah* are not permissible in Islamic banking.



## 5. MICRO-ENTREPRENEURSHIP:

Microfinance is emerging tool for economic development, poverty alleviation, empowering of low income communities and contributing a new role in micro-entrepreneurship (Mondal, p.1-3). It has gained a prominent role in developed and also developing countries. Most of research on micro financing is developed on issue of poverty alleviation and empowering of poor but there is very less shed light by researcher on Micro enterprise and Micro-entrepreneurship. Our studies will based on this our initiative that role of micro financing contribution in entrepreneurship.

According to Mondal (p.3), there are two types of microfinance borrowers; one is Micro borrower and other Micro entrepreneur. Micro borrower has mind like capitalist who is aim to earn profit while doing business. So micro borrower get finances from MFIs (Micro Finance Institutions), after paying back, again they will get finances but only motive is to generate profit but not any entrepreneurial achievement. On the other hand, micro entrepreneur financed their business and brings innovation, creativity and doing a different from others.

## 6. MICROFINANCE ACTIVITIES:

Economic activities base upon sellers and buyer and their capacity. Sellers, before market their product, look at buyer intention and capacity. On the other hand, banking activities depend on both sellers and buyers. Lenders (financial institutions) finance both sellers and buyers for their activities. Commercial Banks invested in projects at large scale while with this, banks invested in consumer finance also. While MFIs usually don't invest in consumer finance. but give finance only for micro enterprise. MFIs encourage people to lift up their

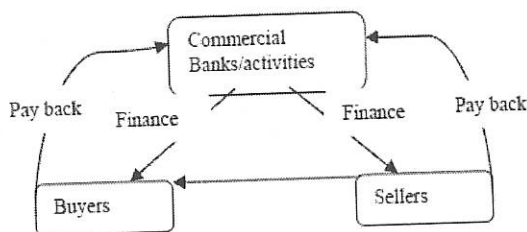


Fig 1: Economic activity by commercial banking

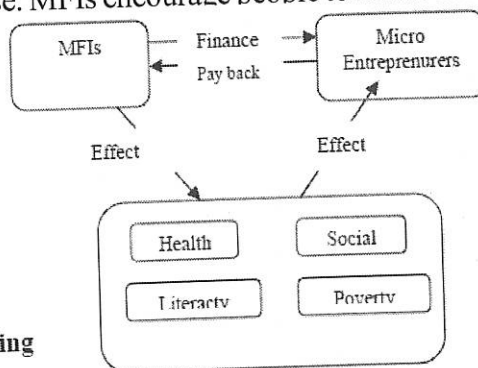


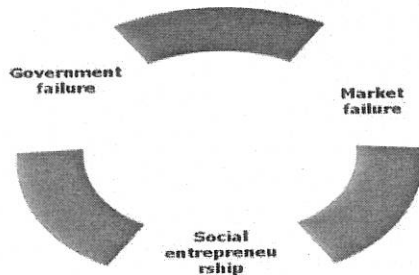
Fig 2: Economic activity by MFIs

According (Ledgerwood, 2000, pp.1), there are many activities and characteristics are included in microfinance. Some are:

- Small and short term loans.
- Search and access the real poor and their business demand.
- Continuous monitoring of business.
- Easy way to access finance, therefore not too much paper work, and easy procedures.
- Offering saving services to borrowers even for smallest amount.
- Literacy training to borrowers so that they can come up with competence to daily business problems and its solutions.

## 7. SOCIAL ENTREPRENEURSHIP:

Entrepreneurial is derived from French literature in 17th and 18th centuries A. D. Entrepreneurship pointed out to those who have been looking for better ways to do works done, and with experiencing Economic development as a result. Entrepreneurs with optimum use of resources and limited facilities offered more, productivity and efficiency act that it has a remarkable and more exact value-added. In economic discourse Joseph Schum Peter, Commercial entrepreneurs are innovators who are pursuing economic goals (Dees et al., 2001). Always in search for change, smart reaction to the changes and use the maximum benefit form changes. In entrepreneurship Literature, in addition to the commercial entrepreneurship which is more business and commerce oriented and taking the risk is their concern to achieve the profitability goals; **Social entrepreneurship** is as a complementary to business entrepreneurship, have a special position in social development literature. The nature of Social entrepreneurship is the cooperative activities such as the philanthropically activities alms, charity, benevolence, and sense of responsibility for the problems of the vulnerable and deprived classes of the society. The necessity for social entrepreneurship in modern society, that is revealed today, is deadlock of capitalist system which has emphasis on personal profitability and ignoring the rights and needs of vulnerable classes, caused the added severity of poverty and deprivation and increase the gap between classes in the society. Government and commercial institutions' failure to solve the social issues has been declared that, today society for confrontation with complex social issues needs social entrepreneurship and creativity.



**Fig 3: Social entrepreneurship; complement the government and market (Weerawardena, 2006).**

## **8. FINANCIAL CHALLENGES FACING MICRO ENTREPRENEURS**

The lack of access to finance is perceived worldwide as a key reason for the poor to remain poor. As the entire financial system comprising of private commercial and semi private-semi public specialized banks, financial institutions leave a large chunk of population untouched by their activities as *“unbankable”*. In most developing countries, less than half the population has an account with a financial institution. In many countries, the ratio is less than 20%. Less than 20% of small firms use external finance, about half the rate of large firms. These are the poor, poorest of the poor and marginalized people who do not enter into the market at all. In fact, M Obaidullah (2008), pointed out that there are three blocks which hinder the access of poor to banking and financial system: high cost of financing, high cost of processing and the traditional system of collaterals.

## **9. MICRO ENTREPRENEURSHIP & POVERTY ALLEVIATION:**

Micro entrepreneurship programs were implemented in many countries to serve microenterprise development, for many reasons: individuals seek additional ways to earn income, labour is become in surplus supply, jobs are hard to come by, wages are low, and many people are self-employed out of necessity, women with small children seeking greater flexibility, etc.

Meanwhile and precisely microcredit is generally perceived as a tool for poverty reduction via self-employment and income-generating activities. M. Yunus (2008, pp 85) concluded one of the significant social impacts of microcredit movement has been the realization that the key to alleviating poverty is often *not* the creation of jobs that is, salaried work for large corporate employers but rather the encouragement of self-employment for all individuals, particularly women, who create goods and services and market them on a local level.

## 10. MICROFINANCE IN MUSLIM COUNTRIES: THE NEED TO FOSTERING ISLAMIC MICROFINANCE:

Despite being able to demonstrate successes, conventional microfinance is criticized to not fully reaching the poorest of the poor and loans are going to activities unrelated to entrepreneurs. In some Muslim communities, conventional interest based microfinance has always been rejected, principally of its non-compliance with the Islamic principles, particularly on the issue of paying of interest or *riba*, which is forbidden. Meanwhile, conventional microfinance institutions have often been criticized for charging the poor exorbitant interest rates and fees. This is largely due to the higher transaction costs incurred, including the provision of services such as monitoring, advice and health insurance.

Although the number of Islamic microfinance initiatives remains limited, less than 1% of total global microfinance outreach, there is an increasing interest in developing microfinance programs based on Islamic financing principles. Generally speaking, Islamic microfinance represents the confluence of two rapidly growing industries: microfinance and Islamic finance.

Many argued that Islamic finance could help correct the shortcomings as it focuses on achieving social justice, prohibits exploitation and battles poverty. This is further strengthened by the fact that the philosophical basis of Islamic financial system lies in **Adl** (social justice) and **Ihsan** (benevolence). During the past decade or so, the value of total assets held by banks complying with Sharia has grown more than 12 times. Having reached nearly \$ 1 trillion in value worldwide at the last count, the industry is set to continue growing strongly over the next ten years, (Abdulkarim Bucheery, 2010)

The involvement of Islamic banks can also help to increase the scope of Islamic microfinance, that can provide microfinance at lower operating and financing costs compared with MFIs as it can operate from existing branches and do not require a whole range of professionals/staffs and not incur extra fixed costs. Currently, there are not many Islamic microfinance institutions but their number is incessantly increasing. They largely use the lending format of the conventional MFIs and adapted Islamic principles and values. The table below illustrates full data collected by Nimrah Karimet al (2008) to evaluate the number, seize and types of Islamic microfinance programs working worldwide.

Institution Type	# of Institutions	Total # of Clients		Total Outstanding Loan Portfolio (Islamic)		Avg. Loan Size (Islamic)
		#	% of Total	US\$	% of Total	US\$
Cooperative	1	6,671	2	926,251	<1	132
Village Bank (Syria)	1	2,298	1	1,838,047	<1	800
NGO	14	125,793	42	41,421,580	21	303
Rural Bank (Indonesia)	105	74,698	25	122,475,158	62	1,640
NBFI	3	4,293	1	1,893,207	<1	595
Commercial Bank	2	87,569	29	29,030,997	15	305
TOTAL	126	305,237	100	198,090,268	100	629

Table 1: Islamic Microfinance by Institution Type, Nimrah Karimet al 2008)

## 11. MICRO ENTREPRENEURSHIP IN BAHRAIN:

Bahrain is a country in transition, where the economic reforms have resulted in the rapid liberalization of domestic economy and improvement in the business environment. Many economic sectors especially the service sector has been growing rapidly. But as evidenced in many countries, economic growth can bypass the poor whereas poverty can continue to coexist in certain social categories with the high growth of salaries and improving standard of living. That is why Bahrain has a strong social protection net that assists the poor and vulnerable groups. These programs include consumption subsidies and social safety nets in the form of cash transfers. **The major initiatives establish to develop the needy families living standards through micro entrepreneurship.**

Number of MSMEs in Bahrian Q1 2010

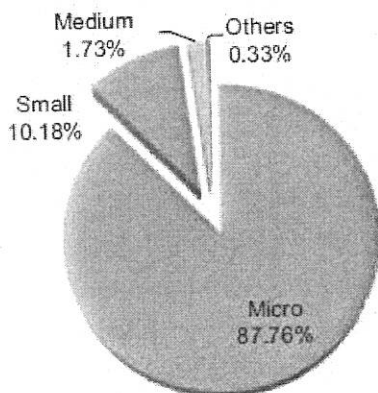


Fig 4: The MSME's in Bahrain, (EDB 2010)

- **THE MICROENTERPRISES AND SME'S**

The government has taken several great steps like: enlarging the financial support, providing enhancement development programs, training of national workers and recently developed the concept of micro, small & medium enterprises to better target their support programs.

- **THE MICROFINANCE IN BAHRAIN:**

The microfinance in Bahrain was initiated in 1999 by both of the United Nations Development Program (UNDP) and the Ministry of Labour and Social Affairs through a program entitled: **MicroStart**. This program was a highly successful microcredit instrument that providing small, short-term loans to low-income individuals, including women, while at the same time creating a system of sustainable credit delivery and management capacity.

- **THE INFORMAL MICROENTERPRISES (PRODUCTIVE FAMILIES)**



The Ministry of Labour and Social Affairs launched the microenterprise and self-employment development program entitled "productive families program". The project has a general goal of creating a successful comprehensive model of support to productive families which not only stimulating a bigger number of families recipients of welfare to integrate income generating activity but also to grow the "matured ones to become SME's". It has several strategic goals as follows, A El Shabrawy (2008):-

- Shifting the charity spirit to focus on support the work done by needy,
- Shifting the involvement of sponsors/partners from donation to partnership,
- Shifting supporting development services to focus on value-added services,
- Shifting the microcredit NGO's-based to create Microfinance Bank for unbankable.
- Shifting charity associations from exclusive charity works to turn into service providers to microentrepreneurs.

Strong partnership	Marketing & outlets						Quality & branding
	Services	Counseling	Workspaces	IT center	Design creativity		
	Funding	Micro-finance bank		Micro-start program			
	Training	Product develop	How to start Micro-enterprise		Specialized training		
	Infrastructure	jewelry center	Kitchen incubators	Ceramics center	Hand craft		
Home-based law		Supporting NGO's		HH Shkha Sabeeka Al Khalifa Rewards		International cooperation	
Adequate resources (financial & human)							
Governmental support & commitment							

Fig 5: Framework of National productive families' project, - A. Elshabrawy 2006.

## 12. THE ESTABLISHMENT OF FAMILY BANK:

The significance of microfinance services in a society is accentuated by several features affecting the socioeconomic context and spirit of microentrepreneurship in this society. Bahrain has the required ingredients to make it an example of entrepreneurship development in the Middle

East. It has business incubator, SME's financial and technical support, UNIDO programs, Productive families programs, industrial zones, etc. Only microenterprise sector is still needs more development. This is one of factors that were behind the establishment of a microfinance bank which are mainly the continuous increase in numbers of welfare recipients, and the gap in financial services for microentrepreneurs. Until the end of 2008, there was no formal microfinance institution/bank in Bahrain, except for the UNDP MicroStart program, that leaves a large gap in financial services.

Family bank is established mainly to develop the microentrepreneurship in Bahrain. The Bank's underlying principles are broad community service outreach, maximal impact on the target clientele, and long term sustainability. The Family bank was officially launched the Islamic microfinance program on January 14th 2010. Family Banks is to be considered as development non-for-profit organization based on solid collaboration with different partners to achieve the following strategic goals:-

1. Providing a better eco-system for microentrepreneurship, with focuses on very small businesses that may not be bankable, but are feasible,
2. Providing innovative banking services for "unbankable" such as:-
  - Shari'a compliant microfinance services & Collateral Free finance
  - Target the Financially Disadvantaged
  - The Bank will go to the poor
3. Targeting Youth. In order to have a real and sustainable impact on unemployment, family bank will target the youth, as a large proportion of the youth are suffering from unemployment.
4. Focus on Women. International experience has demonstrated that a high degree of female participation as borrowers in micro finance programs serves as a basement for the strong performance of the overall lending process. Moreover, women have proven in all cultures to be more responsive than men to the opportunities gained through micro-finance schemes, as well as more reliable regarding finance repayment.
5. Focus on handicapped. A special program is to be arranged to empower the disabled individuals.
6. Involve a sufficient number of NGOs in the lending process. In order to expand the positive impact of the bank services in reducing unemployment and developing the capacity of NGO's in Bahrain.

### 13. THE INNOVATION IN FAMILY BANK:

Facing the dilemma of self-employment and micro-entrepreneurship in a welfare-state like Bahrain where different SME's players are providing competitive supporting schemes and where the needy families have mostly a previous banking experience (either for personal loans, housing loans, auto loans, etc.) is not an easy task. These factors forced the family bank applying an innovative philosophy focuses on provide poor and micro-entrepreneurs with a comprehensive adopted financial and non-financial services to start and expand their very small businesses, at the same time working with all the instruments of professional banks operating under the supervision of the central bank. The main characteristics of the bank are as follows:-

#### *13.1. Provide full fledge Programs & Services*

The principal activities of bank are divided into four main programs as follows:

- A group finance through **Grameen-based program & Microenterprise development finance**: A collateral, guarantee and commercial registration free finances with a subsidized rate of return and against no administrative fees. Repayment to be made in equated monthly installment.
- Finance schemes **throughout the Non-Government Organizations (NGOs)/ Micro-Finance Institutions** as well as Charity organizations in order to work as MFI. This program is designed to work in partnership with the bank to cover geographically the whole country. The program targets also certain disadvantaged categories like women, handicapped and youth.
- Comprehensive non-financial services for all clients (training on money management, how to start a business, counseling, marketing support, providing new business ideas).

#### *13.2. Provide max supporting for first steps*

As microenterprise development has proven to be an effective method for fighting poverty and rising up entrepreneurs in the society, Family Bank is trying to maximize its efforts to be a real catalyst for Bahraini self-employment and microentrepreneurs who are entering the business world for the first time. Some of those individuals are already recipients of welfare support, undergoing a special program for graduation out of poverty. Many clients are working currently in very small scale as home-based businesses; they are willing to get finance to shift to formal. For these reasons Family Bank ensures that the microentrepreneurs and their communities benefit now and in the future.

#### *13.3. Develop Islamic microfinance services*

Islamic Finance has grown tremendously over the past 3 decades whereas an opportunity and need of Islamic Microfinance has been spotted. Hence, Family Bank has combined

*Grameen method* and combined it with expertise in Islamic finance to re-structure the products to become 100% Shari'a compliant. After implementing these products and proven its success, more microfinance models will be introduced to serve Family Bank's clients in different life improvement and empowering aspects. Currently, the developed Islamic microfinance products in family bank are:-

#### ***13.3.1. Micro-Mudharaba***

Mudharaba is a trust based financing agreement whereby an investor (Family bank) entrusts capital to an agent (Mudarib) for a project. Profits are based on a pre-arranged and agreed on a ratio. This agreement is akin to the Western style limited partnership (or venture capital), with one party contributing capital while the other runs the business and profit is distributed based on a negotiated percentage of ownership. In case of a loss, the bank earns no return or negative return on its investment and the agent receives no compensation for his/her effort. Family bank is the first microfinance bank who designed a new type of Micro-Mudharaba.

#### ***13.3.2. Micro-Murabaha***

A particular kind of sale, compliant with Shari'a, where the seller expressly mentions the cost he has incurred on the commodities to be sold and sells it to another person by adding some profit or mark-up thereon which is known to the buyer. As an Islamic Microfinance bank, Family Bank adds a mark-up that is very low, allowing citizens to have access to these commodities without needing to pay large amounts of mark-ups, and will ease the process for them through deferred payment. The bank doesn't incur any administrative fees on this process.

#### ***13.3.3. Adjusting a Grameen –based 100% Islamic finance***

Grameen Foundation helps the world's poorest, especially women, improve their lives and escape poverty through access to microfinance and technology. An agreement for implementing Grameen program is signed between Family Bank and the Grameen Trust, and two professional experts are employed as full time employee in the bank for the first years of operations. Grameen family bank program conducted a general feasibility study to check the suitability to the program to local culture. A detailed marketing plan was elaborated to identify the targeted customers & areas. Grameen team worked to enable family bank department to analyze the local socioeconomic texture as well as getting familiar with the local communities. Once the customers identified and recognized the program immediately starts to educate them by offering training in how to utilize the amount of money which they are asking and any amount that they would to raise in order to improve their living conditions.

#### ***13.3.4. Competitive Pricing philosophy:***

Family Bank aims to enhance and improve the living standard of needy Bahraini by employing them in different areas of business within very socially oriented terms. Under the pricing

methodology adopted by the Family Bank, the bank is charging the lowest cost on money available in Bahrain and may be in the region with a profit rate ranging around 1% per month.

#### ***13.3.5. Provide a Takaful life Insurance for clients***

As the mutual sharing of risk is based on the concept of Taawun (Mutual Protection), Family Bank has signed an agreement with one of the biggest Takaful insurance company to provide a protection for clients in term of the death and the disability. The insurance company will have the full responsibility to repay the finance amount to the Bank in case of death and the disability of the customer. The cost of this operation was agreed to be with nominal fees as the Takaful Insurance Company considered the agreement as part of its CSR activities.

#### **14. CONCLUSION:**

As a conclusion of the analysis of characteristics of micro entrepreneurship and microfinance programs worldwide, one can admit that as the perception of micro entrepreneurship is widely different and accordingly its role is multiple. While marginalized or excluded individuals are forming the main basin of micro entrepreneurs in industrialized countries, welfare recipients, poor, unemployed and low income families are the major players of microentrepreneurship in developed and underdeveloped countries. As a result, not only the microfinance stereotype programs will differ by also the training needs, and non-financial services may largely vary from a country to another.

To a significant extent, conventional microfinance has been effective at supporting the development of very small and small enterprises and consequently uplifting the living conditions of the poor in many countries. However, this convention microfinance is not fully satisfying the cultural and spiritual aspirations of all needy. Potentially, Islamic microfinance can chart a rapid growth given the prevailing high proportion of poor population (particularly in Muslim dominant countries) involved in small and micro-enterprises that are not having access to formal banking system. Islamic finance and conventional style interest-based finance should not be viewed as competitors. Instead, the application of Islamic finance should be seen as a supplement to interest rate credit financing to help micro entrepreneurs.

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## Strategies for Insurance Marketing in India

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### Abstract

Last one decade of reforms in India have started yielding the results in the Indian economy. The Government's resolve to push the reforms measures further, less bureaucratic hurdles, absence of red tapism, investors' friendly business environment all put together have given tremendous boost to the industries in terms of FDI and investments from FIIs. Though the impact is felt in all the sectors, service sector is the one which is most benefited out of all those reforms and the contribution of service sector to the GDP of the country has grown manifold. New economy organizations are spreading their wings into service industry like banking, financial services, insurance, communication, entertainment, telecom and so on. And no wonder why India is considered to be the most preferred nation in the world for Business Process Outsourcing (BPO). The service industry in India has achieved a phenomenal growth in the recent past and among them, Insurance is one sector, which has witnessed high decibel growth thanks to the investor friendly regulator in the name of Insurance Regulatory Development Authority (IRDA). The growth the market has achieved in terms of 18-20% in life insurance and 15-17% in non-life insurance stands testimony to that. In this scenario, this paper makes an attempt to understand the paradigm shift that taking place in marketing of the insurance products and the strategies adopted by the players in the market.

### Introduction:

Looking back at the history, the ride had not been so smooth to the public sector players like LIC, GIC and its subsidiaries. For a long time, the insurance policies are not bought but sold in the country because of so many odd reasons like low awareness level, aversion towards the products as such, superstitious beliefs and less diversified product portfolio. The monolith in the life insurance sector, Life Insurance Corporation of India had been basking in its past glory and enjoying the monopolistic situation in the market. Even the General Insurers like GIC and its subsidiaries were able to reach the people with very few products out of many products in their kitty offering little or no options to the customers. The rules of the game have started changing with the introduction of reforms towards liberalization and

privatization. Infact private sector participation in insurance is not new in the Indian context. In 1956, when the Government of India nationalized the business of life insurance, there were 245 private insurance companies operating in the country. And sixteen years later, when the same happened to General insurance, there were 106. But the seeds were sown as far back as 1993, when the Malhotra Committee headed by former Finance Secretary and Ex-RBI Governor R.N.Malhotra was created to recommend the directions the Indian industry should take. By 1994, the Committee was ready with its report.

The salient suggestions included those on the structure of the industry, competition and the necessity and role of a regulator. The Committee also recommended the opening up of the industry to private sector to increase the reach of the insurance products. Essentially Malhotra was laying the foundation for the creation of regulation and the liberalization process. In April 2000, Insurance Regulatory Development Authority (IRDA) came into being as a statutory body to regulate the industry and to keep a hawk's eye on the private players. The mission of IRDA is "to protect the interests of the policyholders, to regulate, promote and ensure orderly growth of the insurance industry and for matters connected therewith or incidental thereto". What happened after April 2000 is well known in terms of new entrants in the field, the market growth rate and the achievements of new players with in a short span of two to three years.

### **Industry -an outlook**

Insurance is estimated to be Rs.400billion business in India and the gross premium collection is about 2% of GDP growing between 15% and 20% per annum. India also has the highest number of insurance policies in force in the world and the total investible funds with LIC alone are almost 8% of GDP. Yet, more than three-fourth of India's insurable population has no life insurance cover. Considering that only about 65million out of 250 million people are covered by life insurance, the potential is quite evident. Switzerland is the world's largest per capita insurance spender (\$ 4663 per inhabitant), ahead of Japan (\$ 4132 per inhabitant) and far ahead of (200% more) North America, and even further ahead of (250% more) Western Europe. In India, the per capita premium is Rs.490, which is less than 1% than the per capita premium collected in developed nations like UK. India has a savings rate of 22% but less than 5%of it is spent on insurance.

The General insurance market is about Rs.11000crores and with the expected growth in the Indian economy and new players moving in, the market for general insurance is expected to grow at 18% per annum. Over the last ten years, the compounded average growth rate for the industry works out to more than 15%. The five major categories - fire, marine (hull), engineering, motor (both owner-driven and third party) and workers

compensation (clubbed either with engineering or miscellaneous) comprised 62.41% of non-life business in the year 1999-2000.

### **Players in the market**

The untapped potential in terms of potential insurable population in the country has attracted many players to the market. According to IRDA sources, there are 12 private players in the life insurance sector and 9 in case of non-life insurance sector vying for their pie. Homegrown business barons like TATAs, Birlas, Bajaj and ICICI have jumped into the foray joining hands with foreign players as joint ventures. The indigenous knowledge about the Indian consumer behaviour coupled with the expertise of the foreign partners in insurance business has enabled the new entrants making an inroad into the market with roaring success. In addition to the market share, the private insurers are also able to grab the mind share of the upwardly mobile Indian. The list of players in life and non-life insurance is given below.

### **Table 1. List of players in life and non-life insurance**

#### **1 (a). Life Insurers**

01. HDFC Standard Life Insurance Company Ltd.
02. Max New York Life Insurance Company Ltd.
03. ICICI Prudential Life Insurance Company Ltd.
04. Om Kotak Mahindra Life Insurance Company Ltd.
05. Birla Sun Life Insurance Company Ltd.
06. Tata AIG Life Insurance Company Ltd.
07. SBI Life Insurance Company Ltd.
08. ING Vysya Life Insurance Company Ltd.
09. Allianz Bajaj Life Insurance Company Ltd.
10. Metlife India Insurance Company Ltd.
11. AMP Sanmar Assurance Company Ltd.
12. Aviva Life Insurance Company Ltd.

#### **1 (b). General Insurers**

01. Royal Sundaram Alliance Insurance Company Ltd.
02. Reliance General Insurance Company Ltd.
03. IFFCO-Tokio General Insurance Company Ltd.
04. Tata AIG General Insurance Company Ltd.

05. Bajaj Allianz General Insurance Company Ltd.
06. ICICI Lombard General Insurance Company Ltd.
07. Cholamandalam General Insurance Company Ltd.
08. Export Credit Guarantee Corporation Ltd.
09. HDFC Chubb General Insurance Company Ltd.

The FDI limit in insurance sector has been capped at 26% with the remaining 74% in the hands of Indian players. The proposal by the Government of India to increase the FDI limit to 49% has met with lukewarm response, as the players are comfortable with the existing norms.

### **Strategies adopted by the players in the market**

Gone were the days when the customers were forced to take up the kind of products whatever coming from LIC's and GIC's stables. But now, the customer has been portrayed as the king and to his delight, the products are redesigned and customized suiting his need taking into account his paying capacity and multiple benefits. To much of his chagrin, he has also got an option of withdrawing his offer within a period of 15 days (free-look period) if he is not satisfied with the policy features. Let us look at the strategies adopted by the players in the market.

### **I Shift in the product portfolio**

Earlier the entire industry was revolving around investment and savings oriented plans. As the interest rates are moving southwards, all the players are deliberately focusing on selling pure risk covers in an effort to capture the new customers. The premium on such products is low as it covers only the risk aspect and does not factor in investments or savings. Even the market leader LIC has withdrawn some of the products, which are positioned, on the assured returns platform. Though the share of the term plans in the product portfolio is quite negligible, the shift towards the term products is already visible. Typically a term plan does not provide anything by way of maturity, unlike moneyback or endowment policies. Globally, close to a third of the policies fall into this category must be an encouraging news to the players. Unit linked products are also gaining momentum in this country. Om Kotak and Birla Sun Life have launched unit linked schemes focusing on equity, debt and gilt edged stocks. These schemes are expected to yield better returns when compared to normal insurance schemes. As the awareness level about these unique products is much lower, the companies resort to educate the customers about the salient features of the products.



## II Value For Money (VFM)

The sea change since the sector opened up has been on the way the basic products have been packaged innovatively, often tailor made to provide a bundle of benefits to the customers. This is possible through the introduction of riders, which have added value to the risk cover at minimal cost. Riders are nothing but add-ons coming along with the base policies for a slightly additional premium. Riders have become the major instruments for the organizations to lure the customers away from the competitors. The removal of 30% cap on the premium of the base policy for the health riders alone has come as a shot in the arm for many players since this is used as an Unique Selling Proposition by many private players vis a vis the LIC. Later, LIC has also started announcing riders along with the main policies dancing to the tune of the market forces. This could see many non-life players going out of the business as life insurers offer a plethora of personal line products as add-ons. Riders can also be availed by the existing policyholders.

## III Tapping the Niche Markets

Private insurers are concentrating much on designing attractive products by investing heavily on research, studying life expectancy and health statistics across age groups, income levels, professionals and regions on their own instead of relying on data with state insurers. The products are designed with a technical team of actuaries and a product development team working closely together to target the niche market. The innovations for the niche markets are abound and to name a few.....

- MetLife India Insurance Company has recently launched a Charitable Trust Policy in Kolkata, which has evoked a lot of interest especially among the Marwaris business community who want to set up a temple in their name after their death. Similarly a Buy & Sell Agreement cover from the same company permits a business enterprise to take out a life plan on each of its partners, to ensure that the company continues.
- The other segments, which have attracted almost all the players, are the women and the children segments. Though the State insurer has had a chunk of products sufficiently for a longer time, it faces stiff competition from the private players in these segments.
- Tata AIG has offered a specialized life insurance package where the insured and the employers of the insured have a say in it. Termed as Worksite Marketing, AIG, which has adopted this practice in different places across the world, is spreading the concept in India too. Worksite Marketing is a distribution method used to offer voluntary insurance products (employee benefits) to employees at their place of work with the sponsorship or backing of their employer, traditionally done on a deduction from the payroll. The policyholder carries the policy with himself throughout his life, even if it happens to change the organizations.

- Tata AIG General Insurance, for the first time in the country, has launched a specialized product for Accountants (after tasting the success with specialized products such as Directors and Officers policy in India) in its bid to segment the market for professional indemnity policies. The policy has been designed with the assistance from Bombay Chartered Accountants Society. This policy covers claims pertaining to professional negligence, wrongful acts committed in the performance duties. It also provides for coverage of all legal expenses incurred in defending such claims.
- Any other way to promote non-smoking? Or to reward those who give up smoking? Om Kotak Mahindra has taken an initiative by offering a term insurance plan - a pure protection product - to non-smokers at much cheaper price. As against an annual premium of Rs.2400 on a Rs.10 lacs policy for a 10 year term for a 30 year old under the preferred term plan, the regular term premium works out to Rs.3400 for a similar cover. Though there are apprehensions in the industry circle about the success of the policy, the intention of the company is quite appreciated.
- Even the unborn child's future can be safeguarded now. The offspring can be insured against unfortunate congenital defects. State owned General Insurers have started aggressively marketing these kinds of products.

#### IV Thrust to the rural markets

Thanks to the norms stipulated by the regulator IRDA, all the players have turned their eyes towards the rural market. Towards ensuring equitable distribution of insurance policies in every nook and cranny of the country, IRDA stipulates the rural obligations to be met by the players over the years. The rural obligation on part of the new private insurance companies is incremental in nature. It goes from 5% to 15% over the period of 5 years for life insurance and from 2% to 5% in case of general insurance. IRDA has also defined what it meant by rural.

1. The place should have a population of less than 5000
2. Secondly, the density of the population should be less than 400 persons per square kilometer.
3. 75% of the male population should be engaged in agricultural pursuit.

Of the 11 private sector life insurers, 10 companies substantially performed in the rural sector with the percentage of policies issued in the rural sector standing higher than 5% level mentioned. Most of the non-life insurers achieved the base level of 2% gross premium from rural sector. Since the penalty for not adhering to the obligation includes Rs.5 lacs penal fee and upto 3 years of imprisonment of the Chief of the organization, all the companies are swarming the rural market. The challenge lies in reaching the critical mass with the redesigned products. And the organizations have been fairly successful in their efforts. For instance, Om

Kotak Life Insurance is successful in selling the single premium policy in rural market. Reaching the doorsteps of the villagers through non-conventional channels like Regional Rural Banks (RRBs), Co-operative banks, Self-Help Groups (SHGs), ITCs e-choupal is also being tried by the players.

### V Tapping unconventional distribution channels

Nevertheless all the players depend heavily on their agents force to reach out (LIC has reached a figure of 8,50,000 agents and planned to increase it to 1 million by this year), they are trying out other distribution channels also like banks and corporate agencies in addition to the channels mentioned above. The following table shows the strategic alliances the insurers have entered into to distribute their products.

Sl.No	Insurer	Banks / Corporate Agencies
01	Bajaj Alliance (General Insurance)	Jammu & Kashmir Bank, Karur Vysya Bank, Punjab & Sind Bank
02	United India Insurance Company Ltd.	Andhra Bank, Indian Bank, South India Bank, Federal Bank
03	New India Assurance Company Ltd.	Punjab National Bank (General Insurance) Vijaya Bank (Life Insurance)
04	SBI Life	SBI branches and branches of its subsidiaries
05	ICICI Prudential	Allahabad Bank, Bank of India, Citibank, Federal Bank, Lord Krishna Bank, Punjab and Maharashtra Co-operative Banks
06	LIC of India	Corporation Bank, Oriental Bank of Commerce
07	Metlife	Karnataka Bank, Dhanalakshmi Bank, Jammu & Kashmir Bank
08	AMP Sanmar	Kerala based Co-operative Banks – Peruntalmanna Bank and Manjeri Bank
09	Birla SunLife	Citibank, Deutsche bank, IDBI Bank, Catholic Syrian Bank, Bank of Rajasthan, Bank of Muscat
10	HDFC Standard Life Insurance	Indian Bank, Union Bank
11	Dabur CGU Life	Lakshmi Vilas Bank, Canara Bank, Amex, ABN Amro Bank

LIC is also exploring ways to rope in Regional Rural Banks (RRBs) across the country. Cross-selling could be another key strategy in selling insurance provided the restrictions on the functioning of corporate agencies are lifted. Once the curbs are removed, the market may see a wave of cross-selling. Royal Sundaram Alliance may offer household insurance with Sundaram Housing Finance and sell customers of Sundaram Finance Mutual Fund a whole range of insurance products. ICICI-Prudential and HDFC Standard will tie up with their parent companies to use their network. Once the much-awaited Insurance Brokers

Regulations comes into force, the industry is poised to change the way the insurance products are sold with the entry of brokers. While an insurance agent represents an insurance company and offers only the products of that company, an insurance broker is independent and represents a number of insurers. He can also compare the benefits of different policies and premiums to find the best coverage for the customer.

## **VI Cause Related Marketing (CRM)**

Cause Related Marketing has become the order of the day in Insurance industry. By creating a goodwill about the organizations, the insurers are making an attempt to change the negative attitude of the people towards insurance products. For instance,

- Towards serving the society in a better way, LIC has adopted a novel way through its Bima Grams policy. Accordingly, LIC pays 25% of the premium collected from the villagers or Rs.25000 whichever is lesser for undertaking developmental work in the villages provided,
  - The population of the village is between 1000 and 5000
  - Life insurance coverage for atleast one person in 75% of the households
  - Acquisition of 100 new policies in a single year
- Iffco-Tokio General Insurance Company is planning to launch a novel insurance policy Sankat Karan for farmers in which for the every purchase of 50kg bag of fertilizers, insurance worth Rs.4000 would be provided to the farmers. The policy will remain in force for a period of 12 months from the date of purchase.
- Birla Sun Life Insurance has adopted 332 villages around Renukoot and actively involved in improving the lives of the residents.

## **VII De-tariffing in General Insurance**

Though the issue of de-tariffing in general insurance has been debated upon at length, the response from the industry is quite mixed. By fixing a tariff for a product, Tariff Advisory Committee (TAC) maintains discipline in the market and makes sure that the insurance companies do not resort to under pricing to gain market share. IRDA is now working on detariffing the general insurance sector beginning with commercial vehicle business since it constitutes more than two fifth of the non-life business volume. Both IRDA and TAC are working out the modus operandi of the deregulations of motor premium. Sensing the indifferent attitude of the private general insurers towards motor insurance, the Government is contemplating on coming out with obligations to be met by the private insurers in this segment (like rural business). Once the motor insurance premium is detariffed, the end user is likely to see another cola war like.

## Conclusion

Observing the trends the industry has been moving for the last two years, the commitment of the players to take the business forward is quite apparent. With the increase in awareness level about the insurance and the products, the day is not far off all the insurable population in the country would have been brought under the insurance net. The Governments resolve to continue with the reforms coupled with investor friendly IRDA's regulations will surely take the business far.

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## Carbon Tax: an Emerging tool for Environmental Sustainability

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### Abstract

**“We cannot solve a problem by using the same kind of thinking  
we used when we created them”**

**Albert Einstein.**

India is booming and sustainable development becomes increasingly more important. According to a United Nations report, India's population currently encompasses about 1.2 billion people and is expected to grow by another 300 million within the next couple of decades. To meet the challenges of continuing growth without destroying the environment, smart planning for sustainable development is crucial. Sustainable development ties together concern for the carrying capacity of natural systems with the social, political, and economic challenges faced by humanity. But, in order to achieve this optimum sustainability for our planet, we need to focus on effective, innovative and efficient solutions. Carbon Derivative is an emerging tool that is increasingly used by Business Houses for this purpose, now-a-days. This present paper tries to focus on the role of Carbon Tax in sustainability development by using Kaya Identity. Carbon taxes offer a potentially cost-effective means of reducing greenhouse gas emissions, while the Kaya Identity (given by Japanese energy economist Yoichi Kaya) is an equation relating factors that determine the level of human impact on climate, in the form of emissions of the greenhouse gas carbon dioxide. It has been tried in this paper to use the modified Kaya model (Kaya identity), best suited for Indian Business Challenges. For the study, some selected macroeconomic variables are also analyzed and both the above tools are used.

**Key Words: Carbon Tax, Kaya Identity, Sustainable Development**

### **INTRODUCTION**

Sustainability development refers a steady and constant growth that includes all the macro economic factors into consideration. In today's cut-throat competition where Business Houses

seek long term growth, sustainability development is the “mantra” for them. Taking into account Sustainable Development issues when defining a company’s business strategy and management has emerged as a basic data for any company wishing to base their development on the three balanced goals of economic efficiency, social fairness and preservation of the environment. Implementing a “Sustainable Development” project requires setting up a precise methodology in order to identify Sustainable Development issues related to corporate activities and values and establishment of an action plan for achieving the Sustainable Development objectives, It has some major issues that every business house has to check like environment, society etc. Environmental challenges, such as climate change, air and water pollution, occur when the assimilative capacity of a particular environmental resource is exceeded. Society is affected by the resulting pollution and the polluter is often not held accountable for the costs of such pollution. Therefore a market failure occurs (because the costs of pollution are not reflected in the final prices of the goods and services). Regulatory command and control policies require quantitative restrictions on the level of pollution allowed. In the present paper it has been tried to focus on the sustainable development program by using emerging tools like KAYA Identity and Carbon Tax in Indian context.

## OBJECTIVES

- To study the extent of CO<sub>2</sub> emission in India over last 20 years.
- To study some prominent factors responsible for CO<sub>2</sub> emission in India.
- To study the Kaya Identity for India.
- To use carbon tax as a solution

## KAYA IDENTITY & JEVONS’ PARADOX

Pollution has been the major concern for the nations all over the world. India has been major source of pollution in the world today. There has been a tremendous increase in the emission of CO<sub>2</sub> over the years (Graph 1). The amount of CO<sub>2</sub> generated depends on various reasons. All the variables used here show correlation of more than 0.9, meaning a high degree of linear relation between them. The relationship is positive meaning variables move in the same direction. Developing nations back out from signing any treaty relation to control of CO<sub>2</sub> emission because the growth of the nation depends on the optimum production function which also refers to minimum cost function. Any technology adopting pollution control method may not be cheap. In competitive world of today high price products may not attract potential buyers. With increase in CO<sub>2</sub> emission India’s GDP has been increasing (Graph 2). CO<sub>2</sub> emission also depends on the size of population. The unprecedented growth in population in 90’s started many environmental problems, such as rising levels of atmospheric carbon dioxide,

global warming, and pollution. The greater the population the more the output required to feed the growing population. Economic growth dominates contemporary thinking, and this is reflected in consumer oriented culture. Businesses attempts to expand and individuals are encouraged to work longer to earn and consume more. In country like India, where major part resides in rural area, the price of the product matters more than the quality from consumer perspective. The cheaper the price the more market it can cover. So the size of the market also determines the volume of emission. With increasing population the emission also moves up (Graph 3).

Kaya identity developed by Japanese energy economist Yoichi Kaya can be used to describe the key factors which determine fossil fuel CO<sub>2</sub> emissions by human activity from an economic perspective.

$$CO_2 \text{ a"} = \text{population} * \text{energy intensity} * \text{carbon intensity} * \text{output per capita} \\ \text{population} \times [\text{energy/GDP}] \times [CO_2/\text{energy}] \times [GDP/\text{population}]$$

The countries with the highest output per capita have historically been generally concentrated in three main economic blocs, the US, the European Union and Japan which have been responsible for the majority of global CO<sub>2</sub> emissions. However, expanding economies of China, Brazil and India have recently become major emitters. This is due to the population size combined with a rapid increase in economic growth. Jevons' paradox proposed that increasing energy efficiency makes use of energy relatively cheaper thereby fuelling economic growth, which leads to increased use of energy and emissions of CO<sub>2</sub>. So efficiency improvements may have to be used in conjunction with taxes or emission caps to limit any significant effect. India's position regarding Kaya valuation is roughly upward sloping (graph 7). Except for three years 1993, 1998 and 2001 the rate of change has been positive, meaning increasing rate. In the post US depression phase India's CO<sub>2</sub> emission has increased. In this period India attracted a large amount of FDI only next to china and its GDP too climbed up.

#### *Modification to the Kaya Model*

Urbanization is another reason for greater emission. With increase in urban population there has been tremendous increase in the consumption of electronic gadgets that consume more of energy and generate more of CO<sub>2</sub> (Graph 4). When we replace the total population with the urban population the discrepancy between the results seem to widen over the years. The contribution of urban population towards total emission seems to reduce compared to other sources today.

Considering children and elderly people as polluter at par besides youth may not be justifiable. Depending on the data availability if population is only meant to include productive population

or here the employment to population ratio the changes are remarkable. The gap between the two values increases with time, but on an average it is much less.

### TREND IN CONSUMPTION OF GREEN TAX COMPONENTS

Non-renewable resources are resources for which there is a limited supply. The supply comes from the Earth itself and, as it typically takes millions of years to develop, it is limited. Non-renewable resources can generally be separated into two main categories; fossil fuels and nuclear fuels. Fossil fuels are derived from organic matter which has been trapped between layers of sediments within the earth for millions of years. The plants decompose and compress over time, leaving fossil fuel deposits. These deposits, and the materials produced from them, tend to be highly combustible, making them an ideal energy source. They are difficult to obtain as they are typically retrieved through drilling or mining. The change in the rate of consumption of these items are unique in their own way.

Crude oil is a non-renewable resource that builds up in liquid form between the layers of the Earth's crust. It is retrieved by drilling deep into the ground and pumping the liquid out. The liquid is then refined and used to create many different products. Crude oil is a very versatile fuel and is used to produce things like plastics, artificial food flavorings, heating oil, petrol, diesel, jet fuel, and propane. The top three oil-producing countries are Russia, Saudi Arabia, and the United States. The consumption of crude oil in India has been increasing since 2005-06. The growth rate in consumption was satisfactory till 2008-09 but in the subsequent year the rate of consumption jumped up (from 160 Million Tonnes to 192 Million Tonnes). But after that it reduced back to previous trend.

Natural gasses gather below the Earth's crust and, like crude oil, must be drilled for and pumped out. Methane and ethane are the most common types of gasses obtained through this process. These gasses are most commonly used in home heating as well as gas ovens and grills. Russia, Iran, and Qatar are the countries with the largest recorded natural gas reserves. The use of natural gas in India is not so distinctive. Except for 2008-09 rest all year's show negative or negligible rate of increase.

Coal is the last of the major fossil fuels. Created by compressed organic matter, it is solid like rock and is obtained via mining. Out of all countries, China produces the most coal. According to the *Statistical Review of World Energy*, published in 2011, China produced an astounding 48.3% of the world's coal in 2010, followed by the United States who produced a mere 14.8%. Coal is most typically used in home heating and the running of power plants.

The other form of non-renewable resource used to produce energy, nuclear fuels, is primarily obtained through the mining and refining of uranium ore. Uranium is a naturally occurring

element found within the Earth's core. Most uranium deposits occur in small quantities which miners gather together, refine, and purify. Once gathered, the uranium is brought together and compounded into rods. The rods are then submersed into tanks of water. When it reaches critical mass, uranium begins to break down and release energy which heats the water it is immersed in. This is known as "fission." The heated water then creates pressure and it is this pressure which drives the turbines that generate the electricity we use every day. Nuclear fuels are essential to maintaining the Earth's environment since they are the cleanest of all non-renewable resources.

Reducing exploitation of non renewable natural resources through fiscal policy mechanisms requires imposition of taxes. Resource Taxes refer to taxes on resource extraction. Tax on environment can be imposed in the form of transport taxes, energy taxes, pollution taxes and resource taxes. Energy Taxes include tax on energy products for transport and other purposes. Examples of tax on petrol, diesel, natural gas, coal can be taken in this respect. Transport taxes mainly include taxes related to the ownership and use of motor vehicles. Pollution Taxes are imposed on estimated emission to air and water, management of solid waste and noise.

The green taxes will boost energy made from renewable sources by building vast wind farms, nuclear power stations, more solar panels and a new pylon network. The environmentalist's claims the taxes will not necessarily push up bills as consumers will cut heating costs thanks to better substitutes. But it is very unlikely that people will be able to cut their energy use enough to keep bills stable. If people do not slash their energy use, this 'high-price scenario' would see the average bill moving up at increasing speed. The only way people can make savings is to switch to a more competitive pricing plan, which will save them some money a year, and reduce energy use and make their homes more energy efficient.

The Per-capita Energy Consumption refers to the method of calculating the amount of energy that an individual consumes in a particular time interval. Per-capita Energy Consumption (PEC) (the ratio of the estimate of total energy consumption during the year to the estimated mid-year population of that year) increased from 3047 KWh in 2005-06 to 6419.53 KWh in 2011-12. The reason for such drastic increase in Per-capita Energy Consumption is change in life style. With increase in the income level people start consuming more sophisticated equipments. Most of these gadgets are energy driven. Along with it the notion of 'time is money' prevents people from vehicle pooling, using public transport, tolerance of traffic, following traditional mode of cooking and many such environmental friendly options. To stop this cat race and to prevent something that cannot be restored too easily Green Tax is the only way out.



The Energy Intensity (amount of energy consumed for generating one unit of Gross Domestic Product) (At 1999-2000 prices) increased from 0.1374 KWh in 2005-06 to 0.1597KWh in 2008-09, but it has again come down to 0.1478 KWh in 2011-12. Modern technology is more capital oriented than labour intensive. The latest technologies are more energy consuming than their productivity. Each time a machine operates it runs the law of indivisibility of factor, which attracts attention.

### RELATION BETWEEN KAYA IDENTITY AND CARBON TAX

The Kaya Identity suggests that there are four macro-scale policy levers that are available for reductions in emissions and each of the four levers suggests a particular approach to policy:

1. For population (population management)
2. For wealth (reduction in economy size)
3. For energy (increase of energy efficiency)
4. For carbon intensity (low emission)

Keeping all the above in mind, it has been tried to use Carbon Tax as an innovative tool as a solution to the above macro scales. Carbon tax is a form of pollution tax. It levies a fee on the production, distribution and/or use of fossil fuels based on how much carbon their combustion emits. The government sets a price per ton on carbon and then translates it into a tax on electricity, natural gas or oil. Because the tax makes using dirty fuels more expensive, it encourages utilities, businesses and individuals to reduce consumption and increase energy efficiency. Carbon tax also makes alternative energy more cost-competitive with cheaper, polluting fuels like coal, natural gas and oil.

Carbon tax is based on the economic principle of **negative externalities**. Externalities are costs or benefits generated by the production of goods and services. Negative externalities are costs that are not paid for. When utilities, businesses or homeowners consume fossil fuels, they create pollution that has a societal cost; everyone suffers from the effects of pollution. Proponents of a carbon tax believe that the price of fossil fuels should account for these societal costs. More simply put — if you're polluting to everyone else's detriment, you should have to pay for it.

Kaya identity smoothly put a number against each year's CO<sub>2</sub> emission, making it easier for policy framers to decide on the amount of tax to be charged on a particular type of emission. Kaya identity may have many faults but its simplicity cannot be ignored. Other more refined formulae can be adopted for better results; but lack of data in case of over populated developing nation like ours may not permit their use. Sometimes something is better than nothing. So depending on methods that are adoptable in our practical situation like Kaya's is a more logical choice. By using Kaya model the various sources of emission can be detected

spontaneously. Once the origin of the problem is located then proper steps can be taken to reduce the emission. By the use of a progressive tax system on the source of emission a proper systematic mechanism can be developed by which total CO<sub>2</sub> emission can be controlled.

### STEPS THAT HAVE BEEN TAKEN

The French **Environmental Taxation Committee** examined and then adopted an **opinion on introducing a carbon tax base in French taxation**. Canada introduced fuel conservation tax (1991) in Ontario whose main objective was to achieve environmental protection, energy consumption and revenue generation. China, the biggest carbon emissions producer, has proposed to introduce a carbon tax based on carbon dioxide output from hydrocarbon fuel sources. China has adopted 'polluter pays' principle by implementing a pollution levy system (PLS).

After a lot of controversy with respect to creation of pollution India decided to take prominent steps towards checking the amount of pollution. Creation of CO<sub>2</sub> emission cannot be reduced immediately as it may hamper other sectors. The only alternative left is to plant more trees to lessen the negative effect (Graph 5). Large reductions in the carbon intensity of energy use can be made by switching to lower carbon fuels, such as from coal to natural gas, or from any fossil fuel to nuclear and renewable sources of energy such as wind and solar. Other greenhouse gases such as Nitrous Oxide and Methane, which can be translated to equivalent units of CO<sub>2</sub> global warming potential, can also be reduced by changing agricultural processes.

India introduced a nationwide carbon tax of 50 rupees tonne of coal, both produced and imported into India in the year 2010. It is a welcoming step as Coal in India contributes to power more than half of country's electricity generation. Also few tax exemptions in India have been given to those who work on environment-friendly projects. As per the proposal of 13<sup>th</sup> FC, the demerit/sin goods like emission fuel, tobacco, and alcohol should be subject to dual levy of GST and excise duty without any provision of input tax credit.

Another direct step taken by the GOI to spread awareness about environmental pollution is inclusion of this subject in every stage of education. A common paper on environment has been in primary, secondary and higher education (till post graduate level). Education expenditure is taken as a proxy to measure the amount of education imparted. As can be seen both the variables seem to move in the same direction showing no impact on control of pollution via education (Graph 6).

### CONCLUSION

The subject of taxation is dynamic one and has passed through several reform phases. Now a time has come to offer a green and environmentally sustainable look to the process of tax

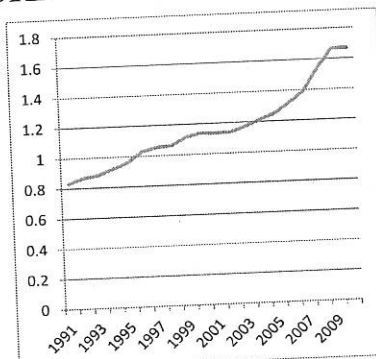
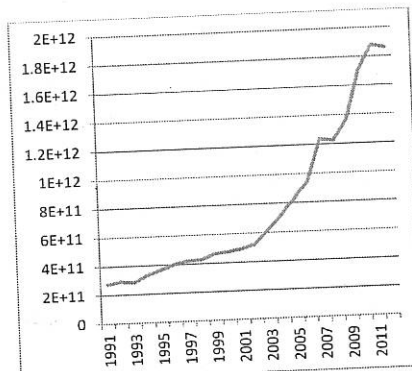
reform. The proposed Goods and Services Tax (GST) has significant implications in this respect. The Task Force on GST set up by 13<sup>th</sup> Finance Commission defines sin goods as goods causing negative externalities and the consumption of sin goods needs to be discouraged. This implies that our policy makers have realized the significance of green tax. The main challenge in enforcing Environmental Tax is the difficulty in setting taxes at a level that accurately reflects the real environmental costs of economics activities. Also, imposition of Environmental Taxes at the national level may affect domestic producers, forcing them to import goods from countries where similar taxes are not imposed. Considering the immense importance of it, ways are to be found out for its effective implementation. The principle of Cost-Benefit analysis, which is most vital for taking any kind of investment decision, should include the price of environment by internalizing the negative externalities. Kaya identity may not be the ultimate solution to all the emerging problem of Green Tax, yet it can be a mechanism to its probable solution. However, much more development is required in this field and there should be concern for environmental sustainability while making any policy decision. In the face of rapid climate change leading to increase in global temperature, we can no longer afford the cost of environmental degradation.

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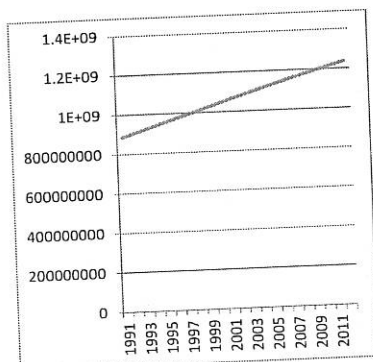
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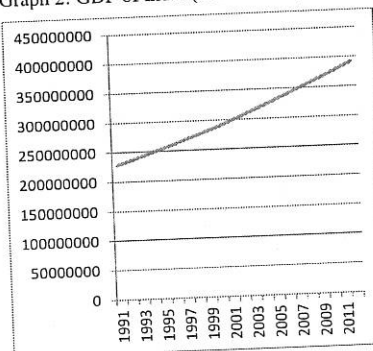
## ANNEXTURE

Graph 1: CO<sub>2</sub> emissions (metric tons per capita)

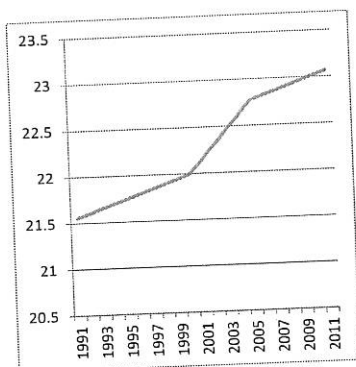
Graph 2: GDP of India (current US\$)



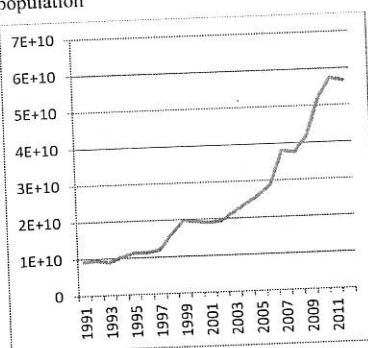
Graph 3: Population of India



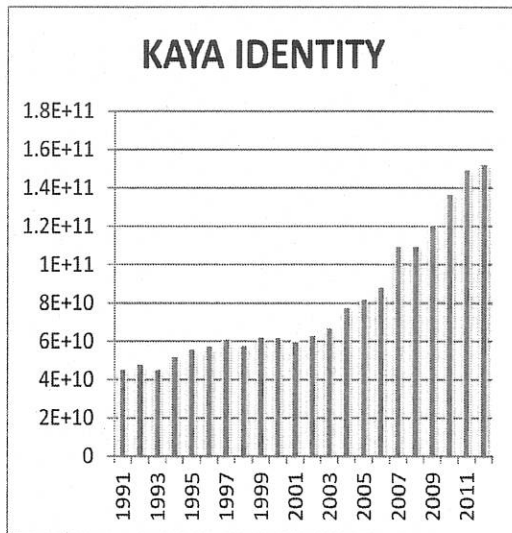
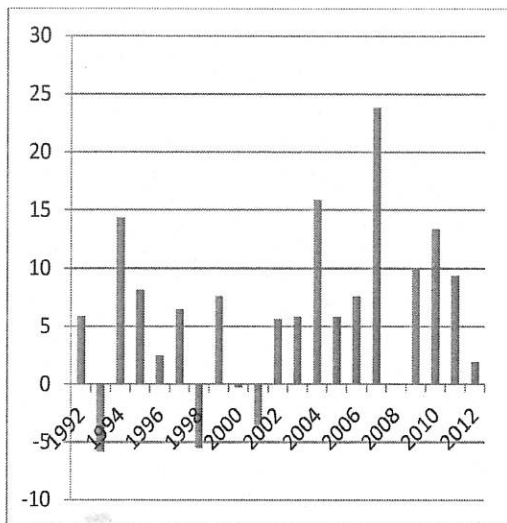
Graph 4: Showing the total Indian urban population



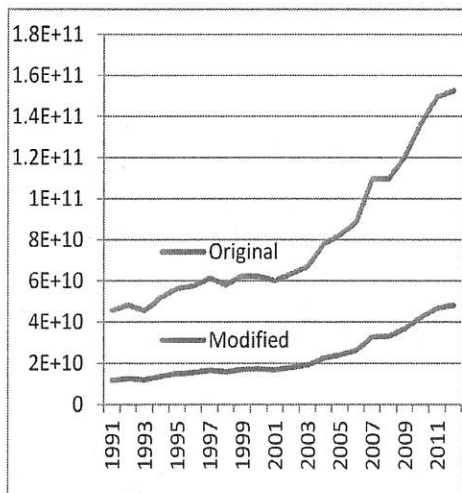
Graph 5: Forest area (% of land area) in India



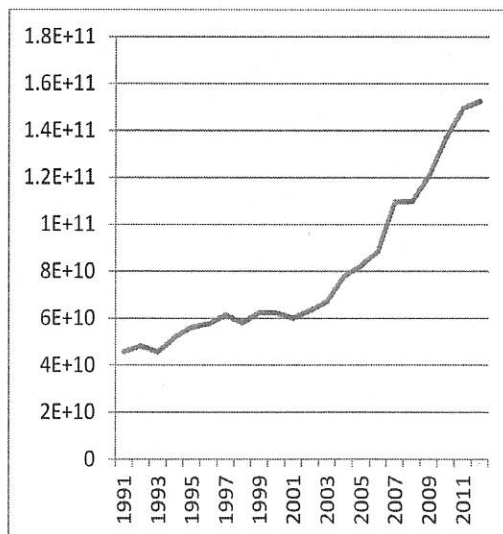
Graph 6: Education expenditure (current US\$) in India

Graph 7: India's Kaya Identity of CO<sub>2</sub> emission

Graph 8: showing rate of change in Kaya values



Graph 9: Kaya values with total population against urban population



Graph 10: Showing discrepancy in Kaya values with only employed population



Table 1: STATISTIC

	<i>GDP</i>	<i>Population</i>	<i>Education Expenditure</i>	<i>CO<sub>2</sub> Emission</i>	<i>Forest Area</i>	<i>Urban Population</i>
Mean	6.71245E+11	1.05E+09	2.18E+10	1.168199	22.23197	2.96E+08
Std Error	92880849072	22381815	2.75E+09	0.055037	0.116876	10092685
Median	4.85282E+11	1.05E+09	1.93E+10	1.137391	22.07121	2.92E+08
S. D	4.15376E+11	1E+08	1.23E+10	0.246131	0.522685	45135861
Sample Variance	1.72537E+23	1E+16	1.51E+20	0.06058	0.273199	2.04E+15
Kurtosis	0.585703464	-1.2245	0.429541	-0.0202	-1.61177	-1.18405
Skewness	1.233987546	-0.04899	1.046546	0.770099	0.273668	0.170333
Range	1.43361E+12	3.19E+08	4.32E+10	0.833747	1.463041	1.45E+08
Minimum	2.74842E+11	8.86E+08	8.94E+09	0.832462	21.55399	2.28E+08
Maximum	1.70845E+12	1.21E+09	5.21E+10	1.666209	23.01703	3.73E+08
Sum	1.34249E+13	2.1E+10	4.36E+11	23.36397	444.6394	5.92E+09
C.I (95.0%)	1.94402E+11	46845677	5.76E+09	0.115193	0.244624	21124233

Table 2: CORRELATION MATRIX

<i>INDICATORS</i>	<i>GDP</i>	<i>Population</i>	<i>Education</i>	<i>CO<sub>2</sub> Emission</i>	<i>Forest Area</i>
GDP	1				
Population	0.901419	1			
Education	0.988746	0.928555	1		
CO <sub>2</sub> Emission	0.963493	0.952762	0.974035	1	
Forest Area	0.918632	0.980018	0.926239	0.933165	1
Urban Population	0.929875	0.997041	0.949978	0.967039	0.986648

Table 3: Trend in Variables

**Trends in Per-Capita Energy Consumption (PEC) and Energy intensity in India**

Trends in Per-Capita Energy Consumption (PEC) and Energy intensity in India					
YEAR	ENERGY CONSUMPTION	MID YEAR POPULATION	GDP	PEC (KWH)	ENERGY INTENSITY KWH/RS
2005-06	3909	1117734	2844942	3047.81	0.1374
2006-07	4226	1134023	3120029	3497.59	0.1355
2007-08	4508	1147677	3402716	3928.16	0.1325
2008-09	6467	1161495	4154973	5568.48	0.1557
2009-10	7127	1175480	4464081	6063.65	0.1597
2010-11	7342	1182105	4877842	6211	0.1505
2011-12	7689	1197813	5202514	6419.53	0.1478

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## HR Roles in Sustainable Development In Indian Context

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### ABSTRACT

Sustainability—balancing social, environmental and economic factors for short and long-term performance—is a critical issue for the world and for business. We interviewed key executives at nine of the world's most “sustainable” companies to examine important issues about their sustainability journeys and the role Human Resources is playing. We confirmed that these companies exhibit first-class sustainability results on a variety of dimensions. We identified a pyramid of seven core qualities of sustainable enterprises that appear to be amenable to managerial intervention, and mapped out the specific HR-related actions to help develop these qualities: inculcating sustainability-oriented values, helping to elicit senior management support for making sustainability central to business strategy; supporting the development of metrics and systems alignment around sustainability; and enabling the organization to achieve broad stakeholder engagement and holistic integration. The concept of sustainability – understood as a company's ability to achieve its business goals and to increase long-term shareholder value by integrating *economic, environmental* and *social* opportunities into its business strategies – seems vital for companies operating worldwide. Additionally, human resources are acknowledged to be among the most valuable assets for them. The purpose of the study is to examine the important factors associated with the organizations' move towards greater sustainability and the role human resources are and might be playing in that process. The paper contributes to the emerging literature linking sustainability to the issues researched in HRM literature. Initially it discusses how the notion of sustainability has emerged and developed in the HRM literature. Then the role of Human Resource Management in the firm's sustainability function is presented. Nine large, public, multinational companies rated among the world's best for their handling of environment, governance, social responsibility, stakeholder management, and work environment issues, are analysed. These are the following: Alcoa, Bank of America, BASF, The Coca Cola Company, Eastman Kodak, Intel, Novartis AG, Royal Philips, and Unilever. Finally, areas of HR's greatest contribution and areas needing

more HR contribution are indicated and discussed and suggestions for managerial practices are delivered.

### Keywords

Sustainability, Human Resource Management, Sustainable Enterprises

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### Introduction

Since the 1990s, there has been increased focus on the strategic role of human resource management. The strategic approach to HRM refers to the relationship between HR practices and strategic objectives, that is, the long term goals of the organisation. With the increasing recognition of the potential of human resources in providing competitive advantage, organisations have begun to consider employees as valuable 'assets' or 'investments'. This view has become more significant in today's knowledge economy that depends on the skill and the knowledge of the workforce. From being a routine, administrative, and reactive function, the HR function today as evolved to being proactive and strategic.

Human Resources refer to the people who work in organisation. The term seeks to communicate the belief that the employees of an organisation are not just people, but valuable resources that helps an organization to achieve its objectives. People are central to organisations. The financial capital, technology, or processes of the organization, by themselves, cannot accomplish organizational goals. These resources depend on human resources for their effective and efficient utilization. At the same time, human resources also need to be managed. Figure 1.1 depicts the centrality of human resources for the achievements of organizational goals.

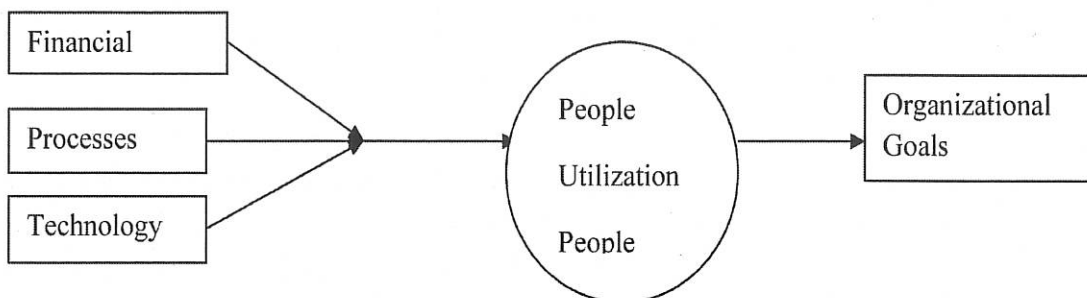


Figure 1.1: Centrality of Human Resources for Organizational Goal Achievement

HRM is concerned with a holistic approach towards the management of people working in an organization, who contribute to the achievement of the organizational objectives. Human resources management ensures the most effective and efficient use of human talent for accomplishing the goals of an organization. In order to successfully utilize and manage the human resources of an organization needs to develop a well-defined HR strategy. Chandler (1962) defined "strategy" as the determination of the long term goals and objectives of an organization and the allocation of resources necessary for carrying out these goals.

Like strategy, HR strategy is concerned with two key elements (Richardson and Thompson, 1999):

- Determining the strategic objectives.
- Developing a plan of action.

Human Resources strategy, therefore, involves the planned and effective use of human resources by an organization to help it to gain or maintain an edge over its competitors. This definition indicates the central role that the people of the organization play in the organisational pursuit of a competitive advantage. An organization is said to achieve competitive advantage when it is able to gain and maintain an edge over its competitors by differentiating its products or services from those of its competitors, thereby increasing its market share. The centrality of people is most evident in knowledge-based organizations, such as software and information services, where the difference between success and failure depends on the skills and knowledge of its workforce rather than on the level of technology.

#### 1. Sustainability in Human Resource Environment

From the industrial era or the machine age to the information age- the evolution of the business environment has been phenomenally fast. In the industrial era, the focus was on the manufacturing goods in plants. The manufacturing process was organised around the concept of assembly-line production. This resulted in job specialization in factories. The blue-collar worker performed his or her part of the job without any idea of how it related to the end product. There was a separation of 'planning' and 'doing'. The worker was hired to 'do' and not to 'think and plan'. The white-collar workers were rewarded for the loyalty.

The end of twentieth century heralded the era of the post-industrial economy, that is, the emergence and evolution of the service economy. This era of the service economy came to be called the 'age of information and knowledge'. Rather than producing goods, the service firms produce 'ideas'. Organization in the 'service era', such as software, financial services and biotechnology firms, depend on 'intellectual capital'. People create 'intellectual capital' and are therefore the most valuable asset of a firm.



The shift from a manufacturing economy to a service economy, from production of goods to production of ideas, and from machine age to the information age has been accompanied by many transformations. The environment within which firms conduct business today is very difficult and much more complex and dynamic when compared to the environment 15 years ago. Firms no longer compete or operate nationally only. Organizations are no longer governed by the business, legal, and political environment of their own nations only. As the world becomes one global playing field, the environment changes in countries other than the home country of a firm affect business decision and the performance of firms. Several societal and global phenomena have challenged the management human resources. Changes in the economic, business, social, and cultural environments have brought about transformation in the HR function and the roles and responsibilities of HR professionals.

Some of the significant environment trends and changes faced by HR managers that pose major challenges are as follows:

- Trends in the business environment.
- The changing nature of the work.
- Demographic, societal and workforce trends.
- The changing nature of the employment relationship.

## 2. Challenges of HRM in Knowledge Economy

The challenges facing HRM in the knowledge economy are

- Attracting and retaining knowledge workers, who are intellectual capital of the firm.
- Obtaining commitment from workers in the context of a changed employer- employee contract.
- Ensuring the availability, development, and utilization of human capital to enhance its value.
- Motivating knowledge workers.
- Ensuring maximum utilization of temporary or contingent employees.
- Encouraging employees to commit to continuous learning.
- Facilitating sharing of knowledge within organization.
- Facilitating work-life balance.
- Rewarding knowledge acquisition and knowledge sharing.
- Enhancing cross-functional team work and team identification.

- Creating a flexible human resource management team that sets and supports the agenda for change.
- Co-ordinating between organizational functions.

### 3. Technology and HRM

Technology has had a huge impact on our lives. Cellular telephones and wireless technology have changed our lives. Technology has also revolutionized the world of work. Today, virtually all office and professional workers use technology, whether by virtue of the telephone, fax, computer, internet or email. Technological advancements at the workplace require people to learn to use technology. A firm is likely to be more efficient and productive as the interaction between the people and technology increases. This relationship enhances the value of the human capital of the firm. It is important for the firms to invest in technology and human capital simultaneously to improve productivity.

Technology has also changed the way HR managers work and the manner in which the HRM function is structured. The new HR function must identify the processes that can be improved and take actions to improve the quality of HR work and lower costs. One way of doing this is by leveraging technology. Technology has changed the manner in which administrative functions of HR are performed. In most contemporary firms HR functions are available electronically or on the internet or the intranet. This form of availability may be called E-HR. E-HR has improved the administrative efficiency and responses of HR to employees. It started with the automation of basic HR transactions, but the impact of technology on HR goes far beyond automating clerical activities.

### 4. HRM in Managing Organizational Change and Transformation

Change management depends on the acceptance, participation, and commitment of all employees in the change process. All managers, including HR managers, have an important role in facilitating the process of change. Management of change in an organization requires that managers develop a future vision; communicate the vision to employees; set clear expectations of performance; and develop organizational capabilities by reorganizing people and reallocating assets.

It is important that the HR function is a partner in an exercise to transform an organization. The HR manager has to be a change agent and a strategic business partner. A major strategic role of a successful HR function is to develop and implement strategies to change and transform the organization. Human resource managers can contribute to managing organizational transformation in their role as change agents by

- Analysing and diagnosing the present state of the organization.
- Communicating business needs and objectives to employees to ensure that employees welcome change.
- Highlighting the people issues or implications that will affect the success of the organizational transformation strategy, such as lowered employee morale due to job insecurity during organizational restructuring.
- Planning and implementation the important aspects of the transformation process, such as training, reward, communication, and other HR practices.
- Hiring, developing, and retaining people who can deal with the change.
- Anticipating people problems, such as downsizing humanely and with minimum disruption to people lives.
- Managing employee resistance to change as well as the concerns of employees resulting from proposed changes.
- Encouraging organization- wide participation in managing change efforts; and
- Creating and supporting a culture that can assist the organization to survive in an uncertain and rapidly changing environment.

##### 5. HRM Approaches to Training and Development

Several changes have taken place over the years in corporate strategy as well as in the training provided by the firms to the employees. During the era of crafts-based enterprises, apprentices worked alongside their master who was a skilled and an experienced craftsman, and gradually learned the skills. In the manufacturing age, workers started working together in factories. The workers no longer owned the machinery but they were still the masters of the production process because they possessed the skills and expertise. The fragmentation and separation of activities began with Adam Smith's idea of the division of labour. This saw the advent of increasing task specialization and began to lead to a continuing disqualification of the worker. This process of fragmentation of expertise became the basic feature underlying the classic organization theories of "Taylorism" and "Fordism". Taylorism proposed the 'one best and only way' that implied training the worker in the 'best way' of accomplishing a task. Fragmentation of the expertise is, however, characterized by a short-term nature, fragmented and shallow content of the knowledge, and transmission of skills that can be immediately applied to measure work tasks. There are three HRM approaches towards T&D in organizations:

- Human Capital Approach
- Contingent Approach
- Strategic Framework

#### 6. Technology and Performance Management

Like other HR practices, technology can support performance appraisal in aspects such as providing ongoing feedback, annual appraisals, and employee development. Technology can be used to enhance the positive outcomes of a well-administered performance management system. Technology supported performance appraisal will not be successful if employees are not satisfied with the appraisal process. Technology interacts with performance management systems, the role of appraisal satisfaction is important for organization. Satisfaction with the appraisal process has impact on productivity, motivation and organizational commitment. Technology may contribute to the performance appraisal process in two ways:

- Technology may perform the function of measuring and individual's performance through computer performance monitoring activities. These activities are mechanical and do not require any input from employees expect task performance. Jobs for which such an appraisal technology is used are the ones that are repetitive and involve little personal judgment and discretion.
- Technology may be used as an aid my mangers to write performance reviews or for generating performance feedback. For example, supervisors or team members can generate multi-rater appraisals online or readymade appraisal software packages may be used to construct an evaluation. Jobs for which this kind of technology is used involve discretion, personal judgment and are open-ended.

The CPM technology helps in collecting performance data by counting the number of work units completed in a time period, error rates, time spent on various tasks, etc. The organization can be using this data for workforce planning, evaluating worker performance, controlling performance, and in providing performance feedback to employees.

#### 7. Career Management : An SHRM Approach

Business planning, which was traditionally concerned with marketing and finance, has now expanded to include human resources to meet business objectives. Integration of human resources planning with business objectives has led to the inclusion of HR managers on corporate business planning teams. All corporate plans are interpreted for their human resource implication. Human resource planning may be appropriately viewed as a macro HR system that provides guidance for the optimum use of the organization's human resources. Human

resource planning systems must also incorporate those HRM subsystems that ensure growth and development of potential of all the employees in the organization. It must also determine linkage between individual growth and maximum utilization of human resources and the interaction between these two aspects.

Human resources planning complement individual career planning. Career planning practices help individuals set career goals. Human resource planning, on the other hand, is aimed at creating and maintaining an effective work force to meet the business goals of the organization. It involves strategies for attracting, selecting, and orienting new employees to the firm. It also formulates approaches for matching individual needs with job opportunities, methods for helping employees develop and perform effectively, and ways to smoothen the separation of employees through retirement. By integrating career planning with HRP, employees' needs can be merged with those of organization. Long-term goals and objectives of the firm are analysed in terms of their implications for manpower requirements- both qualitative and quantitative for the organization to achieve those objectives. By linking employees' career plan with the firm's human resource needs and business objectives, career plans become more realistic and improve the organizations human resources plans. For example, setting up individual career objectives should be aligned with organizations business plans. An individuals concern for performance feedback and development planning may be complemented by organizational activities for helping employees to develop and perform effectively.

#### 8. Mentoring Relationship : A Strategic HRM Approach

An organization should develop a mentoring programme when there is clear business or strategic reasons, such as sharing of organizational knowledge or accelerating the development of future leaders. It is also important to ensure that the goals of the mentoring programme are integrated with the goals of the organization. One of the goals that all organizations, irrespective of industry, type, and size, seek to accomplish through mentoring is to attract and retain high performing top talent by demonstrating the organizations' commitment to developing employees through mentoring.

Retaining employees is a key challenge, since cost of a replacement employee is much higher than the cost of retaining a high performing employee. Other business objectives that mentoring helps to achieve include career development of the protégé as well as the mentor, development of high potential employees, succession planning, visibility for women employees, overcoming the 'glass ceiling' for women, and supporting diversity goals.

To be effective it is important that the mentoring programme supports the informal mentoring relationships that already exist. Hence, informal and formal mentoring relationships should



run concurrently. For protégés to get the maximum benefit out of a formal programme, it is important for the formal programme to incorporate the dynamics of informal mentoring.

Mentoring should also support company values and help in the perpetuation of organizational culture by making the protégé aware about its culture and structure. Mentoring serves the purpose of creating and promoting a high performance culture for three reasons- it creates a sense of belonging by promoting the acceptance of the organization's core values throughout the organization; it promotes socialization and therefore also promotes a sense of belonging and membership; it leads to interpersonal exchanges among the employee of the organization.

The firm should facilitate conditions conducive to the formation of developmental networks rather than the formation of formal mentoring dyads. This is especially important since in a dyadic relationship the protégé may become dependent on the mentor for his/her career development. In a developmental network, employees get to form networks with higher level managers, peers, subordinates, as well as outsiders leading to informal mentoring relationship. An organization can encourage the formation of developmental networks by providing opportunities for cross-departmental interaction, implementing reward systems to reinforce the development of peers and subordinates, developing cross functional teams, having fast track individual teams, and providing training on how to build relationships and achieve goals. Since mentors have a profound influence on the protégés, it's important to train senior managers to enhance their leadership. However, not all senior managers become mentors, though organizations may create a culture that will facilitate the process where each supervisor serves mentoring functions.

#### 9. Strategic Approach To Work-Life Integration

Firms today are moving from single- issues work-life programmes and policies to meet the needs of employees with young children towards a more strategic and comprehensive approach. More- over, work-life practices should also be linked to various individual employee attitude and organization outcomes.

Two aspects important to adopting a strategic approach to work-life integration practices are:

- Linkage of work-life integration practices with strategic HRM.
- Culture change supportive of work-life integration practices.

Strategic HRM literature suggests that HRM is a means for achieving competitive advantage for an organization. How the employees are managed and their resultant attitudes influence their commitment to the organization. This ultimately determines their performance and hence that of the organization.

Consistent with this perspective, the relationship of a variety human resources practices with firm performance measures, such as earnings per share, firms profits, productivity, etc; has been studied by researchers such as Delaney and Huselid (1996), Macduffie (1995), and Arthur (1994). Though individual practices that are included as part of strategic HRM by different researchers vary to some extent, work-family practices have been noticeably excluded by all. Work-life practices are referred to in literature as “progressive” or “innovative” but they have been rarely considered as “strategic”.

Progressive organizations are now recognizing the need to move beyond implementing work family policies towards achieving more fundamental culture change, with work-life balance as a strategic business issues. Companies such as Alcoa, Bank of America, BASF, The Coca Cola Company, Eastman Kodak, Intel, Novartis AG, Royal Philips, and Unilever falls in this class of organizations. Work place norms and culture as pointed out earlier can have major consequences for employees, their families and employers. Therefore, organization now looks at the employees as “whole persons”, as individuals and family too.

### Conclusion:

Sustainability is an emerging phenomenon in HRM practice and research. As the world has entered the 21st century, companies found themselves in need to develop more sustainable business models, and the HR function has a key role to play in the process. This paper has attempted to make a contribution to both: sustainability and Strategic HRM. It provided a short historical analysis of the emergence and different origins of understanding sustainability in HRM.

The challenge HR is now facing is to step up to this call and develop the necessary capabilities to help foster greater business and world sustainability.

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## Rural Techno Skill on Extinction: Lock Making Cottage Industry of Chaupada Kamaarsahi, Cuttack, Odisha

\* Dr Biswaroop Singh

### Abstract

The technology created and used by rural area in the past days needs its way for more sophistication, mass production and marketing of course. Otherwise the mechanized factory products would gradually pushed out the cottage products for obvious reasons. Similar scenario was observed in the lock making cottage industry of Chaupada Kamaraasahi, Cuttack, Odisha. Once upon a time lock- making was a vibrant cottage industry around one hundred black smith families in the area. Due to the superior quality the locks were found almost every important places of Odisha including the famous Jagannath Temple of Puri. But now the industry has almost perished. The article tells about the past and present situations and also recommends plans for the future.

### *Key words*

Rural technology, manual lock, rural lock making

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There is every reason to believe that technology created and used by rural folk in the days of yore found its way for more sophistication and mass production and marketing. The factory products gradually pushed out the cottage product for obvious reasons. The labour content became untenable albeit being cheap in the rural area vis-à-vis the urban. This apart the profession, which was mostly hereditary, skill and technology passing on from generation to generation could not hold them any more. Rural youth craved for more lucrative jobs even though lowly in far off places and migration seasonal and regular took its toll. Even within the rural setup better paying jobs were preferred to family profession.

On receipt of specific information about the dying skill of lock making cottage industry in some villages we decided to have a fact finding mission. The village was Chaupada-Kamarasahi.

That was 29<sup>th</sup> of June, Tuesday. Some 20 k.m away from Phulnakhara, the mid-point of national high-way running through Cuttack- Bhubaneswar, we had to turn to left after driving about 13 k.m on the state express way towards Niali we had to turn left to reach our

destination. Chaupada-Kamarsahi. Repeated queries were to be made to make sure, we were moving on the direction as the road was winding down. We were happy to observe the entire stretch was tarred or of cement-concrete and at places we saw strengthening or widening process were on. It was remarkable wherever we halted to make the query. It was acknowledged that we were concerned about the villages once famous for lock-making. As the place was drawing closer the response from people were becoming more personal. The lock-making families were quite known in the adjoining villages. In one village crossing we stopped our vehicle to interact with one gentleman. Incidentally he was found to be doing black smith's job making sickles, spades nails etc., and intimately knowing about lock makers we intended to visit. He possessed a piece of lock made by one of them. He knew the family details of all. Even informed that only three pieces of locks were available with one of them. None more. He also briefly underlined the plight of once flourishing lock making cottage industry in a matter fact manner. Even he did testify, of the two surviving crafts-masters who possessed greater skill. Interestingly through out the entire strength whomsoever we met were found to be knowledgeable about the two masters.

By noon we were at Kamar Sahi at Madan Ojha's residence. He welcomed us, asked the daughter to spread the mattress on the verandah for us. In response to our queries he went on to narrate the tale of age old a lock-making industry and its subsequent demise. A friend and neighbor of his was sitting with him. He was carpenter by caste. Ojha learnt the craft from his father Das Ojha. There are over one hundred black smith families around. Once upon a time lock-making was a vibrant cottage industry and locks were quite famous for their sturdiness and superior technological excellence. He seemed to be taking pride that the locks made ages ago at their place were still in use in Jaganntha temple. Emar Math (in Puri), Joranda Gadi (Dhenkanal) and other places). The locks manufactured used to be taken delivery by wholesalers flocking from far off places in other districts west and South. Certainly those must finding their ways to neighboring states of MP and Bihar (then).

Depicting the craftsmanship and high technical skill they were endowed with he mentioned that multiple-key system and multiple winding system were introduced by them. For a single lock four keys would be required for locking and unlocking. But such locks were only made to order. Good number of customers were there for double keys and double winding and unwinding locks. There was instance of locks with as many as 14 keys being made and such a law was once made by one Lachonan Choudhury.

Generally the life span of a lock was more than 70-80 years. The brands were called *malei* and *baradee*. Each lock and key was different from the others. So was the method of locking and unlocking. *Malei* was of cheaper variety and was commonly used. There was sizeable gap between demand and supply, the later being shorter.



Raw materials were procured from Cuttack, some 50 Kms away. Even the black smiths would entertain those who would supply their own raw material- iron slabs/pieces/bars. Dinabandhu Maharana has one son. He is not interested in his father's profession. He runs a two-wheeler automobile repairing shop in the village. The villagers had enough number of such vehicles warranting such workshop. He had a small smithery in his courtyard, which collapsed unable to withstand the high velocity wind some two years ago. He appeared to have no zeal to reconstruct it. However, he could go back to work if an appreciable order was placed.

We reached the residence of the second crafts-master Hadibandhu Moharana in the village Kumar Sahi. The family members informed us that he had gone to the temple- site a few meters away to sell guava plucked from trees in his courtyard. As we were walking towards the place we came across his wife, very old returning after bath from the pond. She informed us "Look he is coming". We could see a very frail old man completely bent from the waste was walking dead-slow, with the help of the walking stick. After taking about ten steps he would sit down for a little rest and resume the journey. She advised us to stay put there, as in any case he would return home. We agreed since we wanted secure some information from her in the meanwhile. She is 100 years old and the husband is 102. She narrated the hub of activities in their smithery in those days and the great skill her husband was endowed with. People from neighboring villages used to buy ready made locks as well as placed orders for specifies models. Businessmen from distant places used to buy in bulks. She was in tears while mentioning that her husband had a paralytic stroke in his right hand and no treatment had been helpful. We sat down to discuss as grand old man arrived. At our request they posed for photographs after which we brought in the topic. We could realize that they were struggling to make ends meet.

We all walked in to his house. He places the three lock pieces and three areca nut cutter, all that he possessed of his own products. There will be none in future. We were excited and bought two locks one of which had to be turned twice for locking and unlocking and one piece at areca nut cutter. They were happy as we could observe.

We observed that though the person is physically frail and run down, he is mentally agile and retains the skill and is optimistic that his hand will be cured enabling him to use it, perhaps for the same craft. It was learnt that efforts were made some time in past to grant it the status of small scale industry by the District Industries Center. A cooperative society with 50 primary members was constituted in the 1980s—*Viswakarma Shilpa Sambay Samiti*. Even Khadi Commission extended the helping hand, it did function well for something. But could not stand the ravages of time and environment.

Lock making enterprise was entirely rural technology driven encircled with numerous limitations. Any technology or skill for that matter needs up gradation, honing, refurbishing etc. Stagnation at any point develops negativism. A product to thrive and flourish must posses

the capacity to compete in regard to suit customers taste, market compatibility compensation of the skilled hands and above all the MANAGEMENT. This cooperative was no different from other cooperatives in the stage. The destiny was writ large. The off springs of the skilled crafts men same no virtue in contingency with the profession. Most of them migrate to urban centers in search of greener pastures. Those who stayed back changed to different profession. We were told that most the black smiths have turned to be carpenter and earn daily wage at the rate one hundred fifty. The five sons of Hadibandhu Maharana are working in different towns now.

### Observation

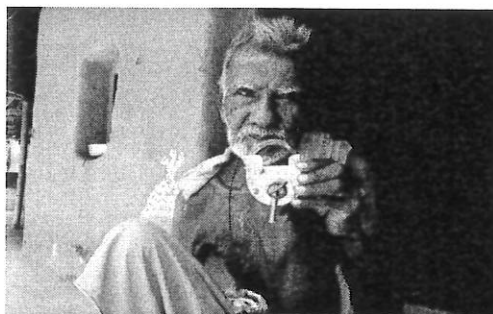
- The lock industry has almost perished
- It could only pass on to history as vainglory.
- Any conscientious person would love to see it as the phoenix.
- From the pragmatic sense to be so a great amount of dedication would be sought fourth.
- Official (govt.) commitment could only help.
- To start with, a group up local youth could be selected, paid attractive stipend, imparted the skill by the surviving craft masters and others.
- There after they could be exposed to modern lock industries particularly for packaging.
- Agencies could be identified for marketing.
- Prior to all this some brain storming exercise such as workshops and seminars have to be organized and a fool proof project has to be prepared by competent agency.
- Only then this great craft can comeback to life and live in glory.

### Interviews

- Mr Madan Ojha, Lock maker
- Mr Hadibandhu Maharana, ( Lock maker) and his family



Mr Madan Oja



Mr Hadibandhu Maharana

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