



PROBLEMS AND PROSPECTS OF NURSERY BUSINESS, HORTICULTURE BUSINESS, GARDEN CENTERS IN WEST BENGAL

Manindranath Pandit*

Abstract: West Bengal has the unique advantage for Horticulture Industry, and is probably the only state where all types of Agro- Climatic conditions are available. Here all types of horticultural crops can be grown very successfully. Lakhs of peoples are engaged in horticulture and its related business activities. This sector plays a vital role in West Bengal's economy. This paper tries to identify the problems of this sector and suggests suitable measures to overcome these problems, so that this sector can play a key role for the development of the economy of West Bengal and become the leader of horticulture sector of India.

Horticulture(Latin: hortus (Garden) cultura (culture) is defined as the art and science of growing fruits, vegetables, herbs, nuts and ornamental plants. The separation of horticulture from agriculture as a distinct activity is usually dated from the Middle Ages in Europe. Horticulture can be divided into three main sectors: fruit growing, market gardening and ornamental cultivation.

India, with its wide variability of climate and soil, produces a large range of horticultural crops such fruits, vegetables, potato, tropical rubber crops, ornamental crops, medical and aromatic plants, spices and plantation crops like coconut, cocoa etc. The Government has identified horticulture crops as a means of diversification for making agriculture more profitable through efficient use of land and optimum use of natural resources like soil, water and environment and creating skilled employment for rural masses, especially women folk.

A nursery is a place where plants are propagated and grown to usable size. The soil, water and environment of West Bengal are best suited for Nursery. Nurseries are engaged with commercial growing of flowers, ornamental plants and beautification of surroundings

Nurseries often grow plants in green house, a building of glass or in plastic tunnels designed to protect young plants from harsh weather especially frost, while allowing access of light and ventilation. Most nurseries remain highly labor-intensive. A U.K. nurseryman has estimated in 2003 that manpower accounts for 70% of his production costs.

Nursery business is highly seasonal, concentrated in spring and autumn. There is no guarantee that there will be demand for the product- this will be affected by temperature, draught, cheaper foreign competition, fashion etc. A nursery carries there risks and fluctuation.

Nurseries grow annuals, perennials and woody plants (trees and shrubs). These have varieties of use: decorative plants for flower gardening and landscaping, green vegetable plants and agricultural plants

Annuals are sold in trays, peat pots or plastic pots. Perennials and woody plants are sold either in pots, bare-roots or balled and burlaped and in a variety of sizes, from liness to mature trees. Balled or Burlap

* Associate Professor in Commerce, Vivekananda College, Thakurpukur, Kolkata-700063.



trees are dug either by hand or by a loader that has a tree spade attachment on the front of the machine. Although container grown woody plants are becoming more and more popular due to the versatility.

The growing of ornamental plants in nursery for sale is divided into following industries.

- 1) The production of cut and flowers.
- 2) The production of potted plants.
- 3) The growing and forcing of flowering bulbs and corms.
- 4) The production of bedding plants.

Since these nursery industries have special requirements, facilities and technical knowledge, they are highly specialized.

West Bengal produces a large portion of India's total nursery products and a large number of families earn their livings from Nurseries.

ORIGIN OF RESEARCH PROBLEM

Nursery is most labor intensive but requires least area of land for cultivation. Hence it is most suitable for thickly populated area. But nursery business in West Bengal is handicapped mainly by the following constraints.

- Establishment of Nursery involves high initial costs for setting up structure and running the plantation work.
- Production in Nurseries is uncertain due to vagaries of nature.
- Cost of production is too high as some plants are vulnerable to diseases.
- Cost of packing and preservation are too high as the plants and flowers are perishable in nature.
- The market of nursery products is controlled by some middlemen who exploit the nurserymen in various pretexts.
- Lack of proper transportation system for sending nursery products to the markets outside West Bengal, forces the nurserymen to sell their products to the local businessmen at low prices.
- Scarcity of finance sometime forces the farmer to enter into agreement with middlemen to sell their future products at low prices.
- Imbalances between demand and supply of the produces, limited opportunity for foreign market, inadequacy of financial assistance from Government and financial institutions, illiteracy and ignorance of nurserymen create a lot of problem to their Nursery industry.

The present study aspires to enquire into infrastructural, managerial, financial and marketing problems of the Nursery industry in West Bengal with particular reference to South 24 Parganas and Howrah districts and try to find out possible ways to minimize the problems.

OBJECTIVES OF THE STUDY

With a view to find out the solutions to the problems mentioned above this study thrives to investigate the issues with the following objectives:-

- To study the problems faced by Nursery industry relating to infrastructure, supply of raw materials, production, employment, marketing etc.
- To determine the cost structure of different types of plants.



- To enquire financial aspect in general and sources of financing, capital structure and return on investment in particular.
- To analyze the marketing system of nursery products with a view to find out where there is any scope of minimizing the financial advertising of nursery industry.
- To what extent the modernization of nursery industry would improve the economy not only in the districts of South 24 Pgs and Howrah but also of the state of West Bengal?
- How can the poor farmer of these districts be motivated to engage themselves more in this nursery industry which would bring in more employment opportunities and other necessary improvements-economic and social?
- To focus on existing infrastructural facilities available so as to assess the additional need from promotion of nursery industry.
- To assess the overall growth of potential of nursery industry in West Bengal with special...
- To focus on effectiveness of govt. policy and guidance, both state and central govt. in the context of need for development of nursery industry in the era of globalization, liberalization and privatization.
- To make suggestions that will have policy implications both at micro and macro level for the development of nursery industry.
- To highlight the economic viability of the industry in large, medium, small scale and tiny sector.

METHODOLOGY OF THE STUDY

We have confined our study to the state of West Bengal because West Bengal produces a large portion of India's total nursery products and a large number of families earn their livings from Nurseries. The period of discussion covered both pre and post -independence period up to 2012.

For the purpose of our study, data have been collected from both primary and secondary sources. Primary data have been collected by field survey. For this field survey a questionnaire has been prepared first and then with this questionnaire we have visited 10 nurseries in west Bengal for collection of data and information relevant to our research work The approach of the whole investigation has been as follows:

We took interviews of several owners, workers and trade union leaders of 10 nurseries in West Bengal mostly located at south 24 paraganas, north 24 paraganas,Howrah and Hooghly. Besides we have gathered information and data (published and unpublished) from different government agencies. Extensive reliance has also been made on existing works and available literature on the subject.

The data and information obtained at the field survey and that from secondary sources have been tabulated and analyzed to highlight the present position and natures of problems faced by nurseries in West Bengal and suggest remedial measures.

CHAPTERIZATION

To achieve the objectives mentioned earlier, the proposed work will be divided into the following chapters:

INTRODUCTION

There is a wide diversity of horticultural crops grown in West Bengal. Major crops arefruits and nuts, vegetables, spices, plantation crops, medicinal and aromatic plants,flowers and ornamentals. Important fruits are: mango, pineapple, banana, papaya,mandarin orange, sweet orange, guava, jackfruit, lichi and sapota, watermelon, pear, avocado, cherry, peach, strawberry, passion fruit, plum, Jam/Black Plum/Java



Plum, Parsimon, Jamrul/Rose Apple. Common vegetables (excluding potato) are: tomato, cabbage, cauliflower, radish, carrot, pea, brinjal, onion, garlic, ladies finger (okra, bhendi), palwal, cucurbits (gourd, cucumber, bitter gourd, bottle gourd, sponge gourd, pointed gourd, squash), French bean, leafy vegetables (spinach, amaranthus, Ipomoea), elephantfoot yam, taro (arvi), turnip, beet, brussels sprout, tapioca, etc. Common spices are: turmeric, chilli, red & green pepper, ginger, large cardamom, coriander, black pepper, etc. Common plantation crops are: cashew nut, coconut, areca nut, palmera palm, betel vine, etc. Common flowers are: rose, chrysanthemum, tuberose, gladiolus, Chinese rosejasmine, Arabian jasmine (bel, mallika), Italian or Royal jasmine (chamelli), Cape jasmine (gardenia), holihoc, lotus, anthurium, garbera, begonia, gloriosa, freesia, lilies, zepheranthes, haemanthus, eucharis, caladium and different types of orchids, rhododendrons, camellia, etc. Although West Bengal has a wide diversity of medicinal plants but very little of them is under cultivation. Plants that are now being cultivated (excluding cinchona) include sarpagandha, ashwagandha, ghritakumari, ayapana, anantamul, antamul, chirata, etc. Hardly any aromatic plant is in cultivation except lemongrass and Citronella

HISTORY OF NURSERY INDUSTRY IN INDIA WITH SPECIAL REFERENCE TO WEST BENGAL

The history and evolution of horticulture is intimately connected to the history and development of agriculture. As such, horticulture is the history of humanity's desire to gain control over the nature. This story encompasses exploration, conquest, experimentation, innovation and globalization. This is such a huge story that many aspects such as the fascinating history and development of landscape design, the huge popularity of leisure-time home gardening and the introduction of various plants- economical and ornamental- into different areas of the world, can only be touched on.

The horticulture scenario of the country is rapidly changing. The production and productivity of horticultural crops have increased manifold. Production of fruits and vegetables has tripled in the last 50 years. The productivity has gone up by three times in banana and by 2.5 times in potato. Today horticultural crops cover about 25 per cent of total agricultural exports of the country. The corporate sector is also showing greater interest in horticulture. A major shift in consumption pattern of fresh and processed fruits and vegetables is expected in the coming century. There will be greater technology adoption both in traditional horticultural enterprise as well as in commercial horticulture sectors. Diversification and value addition will be the key words in the Indian horticulture in the 21st Century.

PROBLEMS FACED BY THE INDUSTRY IN WEST BENGAL

In spite of several promising factors, Horticulture sector has not yet been developed in West Bengal up to our expectation because of the following problems:

INFRASTRUCTURE

It is the prime factor responsible for such condition. These include lack of adequate modern machineries and other labor saving gadgets, poor knowledge regarding scientific procedure of production, poor and inadequate cold storage facility, inadequate power (electricity) facility, poor transport facility, poor system of distribution and management of horticulture products etc. inadequate irrigation facility, inadequate farm credit facility in agriculture infrastructure, Inadequate facilities of building of glass or in plastic tunnels to produce plants .etc



SUPPLY OF RAW MATERIAL

Seeds, fertilizer, pesticide in due time at a subsidized rate is another major problem of horticulture business. The acute shortage of quality planting/seed materials including seeds of improved varieties is one of the major constraints limiting faster development in many horticulture and plantation crops. This is despite the fact that a large number of private and government owned nurseries and seed companies are engaged in production and supply of planting materials. In most of the nurseries, no attention is paid to the selection of mother plants and trees. The repeated propagation of a clone from a single mother plant has contributed to the decline in vigor and other characters of plantations. Some unscrupulous nurserymen are even reported to sell seedling plants whenever the demand is heavy. The state Departments of Horticulture / Agriculture are the major buyers of plant materials every year for distribution to the farmers on subsidized costs under various developmental programmes. It is mostly through these purchases that the farmers receive inferior material.

PRODUCTION

It includes:

- Poor quality of seeds and fertilizer and pesticide are another major problem of Horticulture Sector.
- A large part agricultural land in India is still dependent on monsoons. Heavy monsoon hampers production and production system is also hampers because of shortage of rainfall.
- Production system is run by unskilled worker manually. Therefore quantity and quality of production is poor.
- Practices like cooperative farming are not promoted among the farmers.

In west Bengal there is a little scope for large horticulture farming rather there is sufficient scope for small and marginal/ tiny horticulture farming. This is evidenced by operational Land holding in West Bengal.

Size class	Holding Nos.(Lakhs)	Average holding size(ha)
Marginal(0-1.0 ha)	50.03	0.48
Small(1-2 ha)	11.01	1.48
(i) Medium (2-4 ha)	3.82	2.74
(ii) Medium (4- 10 ha)	0.60	5.25
Large(more than 10 ha)	0.01	175.83
Total	65.47	

Source:National Horticulture Mission Report 2005

The West Bengal is an agrarian state with the rural population of more than 72%. The economy of West Bengal is well diversified and agriculture in West Bengal contributes 24% of State GDP and around 70 percent of the population is dependent upon agriculture directly or indirectly. The Net sown area is 60% of total Geographic area against national average of 46%, the Gross cropped area exceeds 97 lakh hac with cropping intensity of 184%. Small and marginal farmers account for 95% of total farmer population and own 79% of net cultivated land. Irrigation covers 45% of net cropped area. There is a high reliance on



monsoons. West Bengal is the highest producer of vegetables in the country and seventh in the production of fruits. Horticultural crop covers 24% of net cultivable area in the State.

LAND USE PATTERN IN WEST BENGAL FOR AGRICULTURE PURPOSE

Total geographical area	8875200 ha
Cultivable area	8686639 ha
Net sown area	5354 196 ha
Gross cropped area	95 10423 ha
Cropping intensity	184%

Source:National Horticulture Mission Report 2010

With a production of 26 MT of horticulture produce from an area of 1.69m. ha. West Bengal is the largest producer of horticulture crops accounting for 12.11% of total horticulture production in the country. The major horticulture produce comprises vegetables (87.33%). The state produces 26m. MT of vegetables from an area of 1.69 m.ha. With the productivity of 15.34 t/ha. The production of fruits comprises 10.68% of total horticulture crops in the state.

Area, production, productivity of Horticulture crops in West Bengal

Crops	Area ('000HA)			Production ('000MT)			Productivity (MT/HA)		
	2004-05	2008-09	Increase (%)	2004-05	2008-09	Increase (%)	2004-05	2008-09	Increase (%)
Fruits	166.29	203.2	22.2	2128	2775.60	30.42	12.80	13.66	6.70
Vegetables	868.41	922.8	6.26	10997	12803	16.43	12.66	13.87	9.57
Flower	17.925	21.07	17.55						
Cut flower production (croresticks) Productivity (lakh sticks/ ha)	6.624	8.46	27.72	89.63	212.33	136.90	1.35	2.51	85.48
Loose flower	11.301	12.6	11.49	44.67	52.01	16.43	3.95	4.13	4.43
spices	97.504	114	16.92	212.5	304.63	43.36	2.18	2.67	22.61

Source:National Horticulture Mission Report 2010

FINANCING

Most of the nurseries in west Bengal are tiny or small or medium size owned by poor farmers. Their financial capacity does not permit them to purchase high quality of seeds, pesticide and other labor saving machinery. They sometimes do not receive bank loans at a moderate rate of interest. They usually borrow money from Mahajans at a higher rate of interest.



Now a days Central and state governments are providing funds in the form of soft loans though it is inadequate as compared to total requirement , for the development of horticulture sector but sometimes the poor and illiterate farmers hardly receive the opportunities to receive this facilities. The annual action plan of State Horticulture mission, West Bengal for 2010-11 has been approved for 51.88 crore including Govt. of India share of RS 44.10 crore. During the year 2010-11 RS 16.00 crore have been released. So far an expenditure of RS 30.48crore has been reported.

Year-wise details of outlay, funds released and expenditure under National Horticulture Mission in West Bengal

(RS IN LAKH)

Year	Outlay	Releases	Expenditure	Balance
2005-2006	8451.00	4035.31	0.754	4034.56
2006-2007	9377.00	4600.00	1013.19	7621.37
2007-2008	3114.51	681.82	2500.65	5802.54
2008-2009	4765.10	607.20	2893.66	3516.08
2009-2010	3627.38		3234.92	281.16
2010-2011	4409.80	1600	3047.80	

Source:National Horticulture Mission Report 2010.

West Bengal has the unique advantage for floriculture Industry, and is probably the only state where all types of Agro- Climatic conditions are available. Here all types of horticultural crops can be grown very successfully. Presently, flower crops are cultivated in 17,328 ha. in West Bengal as against 1,06,477 ha on the national level. In terms of coverage, this State ranks 3rd in the country. Production of loose flowers is about 43,575 MT and cut flowers about 8,766.6-lakh in numbers, in West Bengal. On the national level, loose flower production is about 5,34,576 MT and cut flower production is about 25,647-lakh numbers. In West Bengal cut flowers are mainly Rose, Gladiolus, Tuberose, Gerbera, Carnation, Anthurium, Chrysanthemum, Aster and Orchids.

MARKETING

Horticultural crops being perishable in nature, losses in quantity and quality which affects these products between harvest and consumption. Factors like respiration, ethylene production, evaporation, temperature and relative humidity affects the keeping quality of these products. A post-harvest facility from production linking to the market and consumption points helps in the reduction of losses due to wastage. The existing market Infrastructure in post-harvest facilities like cold storage and the avenues for sale in terms of market and mandi linkages are inadequate as compared to its total need.

There is a three-tire marketing system in West Bengal. It includes 2925 rural hats and bazaars, 159 wholesale markets and 40 marginal (terminal) markets. Most of the markets are privately owned. Besides these, there are also hats and bazaars supervised by Panchayat Samities and Regulated Market Committees. There are hardly any infrastructural facilities in the privately owned markets. There are 46 Regulated



Market Committees in West Bengal as per West Bengal Agricultural Produce Marketing (Regulation) Act, 1972. Of these, 25 Market Committees have constructed Market Yards of their own. Besides, the responsibility of developing and organizing the infrastructure of 159 Rural Hats and Bazaars is also lying with the Regulated Market Committees. Trading centers are located in District Head Quarters and Sub-Divisional Head Quarters. There are 54 Sub-Divisional markets and around 330 markets at the Block level. Fresh Fruits and vegetables are mostly sold through the wet markets in the retail format. (Source: National Horticulture Mission Report 2005)

The need for improved marketing strategies for nursery/ horticulture centers is widely recognized by the nursery/ horticulture industry. This is becoming increasingly true in light of competition for customers due to participation of mass merchandisers who often sell plants at lower prices. By identifying customers' needs in plant sales, nurseries will be able to make the plant purchase a more satisfying event and encourage repeat business.

Agri-export zones (AEZ) are promoted with the objective of promoting exports of agricultural produce from selected areas of productivity prominence, food parks provide an opportunity of increasing processing capabilities in the state, and these are two important linkage points which help in absorption of Fruits and Vegetables for further value addition.

Kolkata is the major center for fruits and vegetable trade, estimated 33% of total arrivals of fruits and vegetables is sent to Bangladesh from the Kolkata market. Goods also move to the neighboring states of Bihar, Jharkhand, Orissa and Assam and to neighboring districts from the Kolkata market. There is lot of scope for fresh vegetable exports to the Far East markets especially for products like beans, asparagus, Cauliflower, Cabbage, Leafy vegetables such as Lettuce and spinach, tomatoes and gourds. Similar opportunities exist for exporting a large number of fruits like Pine-apples and Bananas. The main export markets are Russia and other Republic of Common wealth of Independent States, UK, USA, the Middle East & Germany. The position of exports from the Agri Export Zones for the AEZ identified crops is shown in the following table:

EXPORT OF PRODUCE FROM AEZ

Crop	Production	Exports (Rs. in crore)
Pineapple	238900 tn.	Rs. 2.3 lakh Fresh, processed Rs. 10.9 lakh
Mango	123700 tn.	Rs. 23 crore, processed Rs. 17 crore
Lychee	33730 tn	. Rs. 64.5 Lakh
Potato	2590480 tn.	Rs. 2.61 Cr. Fresh, 50.2 Lakh Processed
Vegetables	2706400 tn.	Rs. 4.74 Crore
Flowers	59.4 crore spikes, 27.4 loose.	Rs. 74.0 Lakh

Source: National Horticulture Mission

The AEZ though established and operational are in a primary stage with scope to increase export from the region.



Conclusion and suggestion for establishment and development of nursery industry in West Bengal.

1. A large part agricultural land in India is still dependent on monsoons. Developing irrigation facility must be a priority area for the government.
2. The back-up infrastructure facilities like cold-storages, roads and distribution and management of horticulture products must also be given due attention.
3. Farmers in India need to be provided the right technical inputs so that the yield is optimum and of a high quality.
4. Organic farming must be encouraged so those Indian horticulture products are able to compete with those arriving from other countries in the international market.
5. Research and development is critical and must be promoted in the sector in areas like development of high-yielding variety of seeds and soil testing.
6. Packaging and marketing of horticulture products is another area that leaves a lot to be desired and people engaged in the sector should be made aware of the two.
7. The farmers involved in horticulture sector should have easy access to financial instruments like micro credits and loans.
8. Practices like cooperative farming need to be promoted among the farmers.
9. Tax structures on horticulture products need to be rationalized so that the cost of the end products can be kept within reasonable limits.
10. Innovations should be promoted in the sector so that newer and useful agricultural implements can be manufactured.
11. Enhance production and productivity of horticulture crops;
12. Increase coverage of crops under improved/ high yielding cultivars;
13. Improve nutritional security and income support to farm households;
14. Enhance production of high value and low volume horticultural products for exports;
15. Strengthen infrastructure facilities for marketing and export;
16. Establish convergence and synergy among multiple on-going and planned programmes for horticulture development;
17. Promote, develop and disseminate technologies, through a seamless blend of traditional wisdom and modern scientific knowledge;
18. Create opportunities for employment generation for skilled and unskilled persons, especially unemployed youth; etc.

Questionnaire

1. Name of the district-
2. Name of the block-
3. Name of the Nurseryman-
4. Address-
5. Name of the head of the family-
6. No. of family members.
Adult- (M- F-) Children- (M- F-) Total- (M- F-)



- e) Govt. agency.
- f) Own retail.
- g) Others.
- 27. Do you export your product- Yes/No.?
- 28. What type of competition involved in the market?
- 29. Any other problem regarding marketing.
- 30. Who determines the price?
- 31. Whether all nursery products are disposed of

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CHANGING PATTERN OF RURAL WORKFORCE IN INDIA: SOME REFLECTIONS FOR THE INFORMAL SECTOR

Pampa Sen Gupta*, Anirban Ghosh** and Sujit Thakur***

Abstract: The present study is divided into three, though not mutually exclusive, parts. First, it analyses the change in the level and pattern of overall rural workforce according to Usual Status (PS+SS) at all India level in the last decade on the basis of NSS data. Owing to their overwhelming predominance in the economy, nature of participation of informal sector workers engaged in non agricultural sector and agricultural sector excluding those engaged in only growing of crops, market gardening, horticulture and growing of crops combined with farming of animals (AGEGC henceforth) is examined at length in the next part. Finally it looks into some qualitative aspects of employment like 'mode of payment', 'existence of written contract', 'eligibility of paid leave', 'eligibility of Social Security Benefits' etc. to understand the quality of life of rural work force. The results are quite interesting and intriguing as well.

One thus notices that despite a decline in the period from 2004-05 to 2009-10, workers engaged in 'Proprietary and Partnership' enterprises... designated as informal sector workers as per NSS data—still dominate (constitute almost 75% of total workforce in the AGEGC and non-agricultural sectors) the rural Indian economy. Interestingly however, formalization in the mode of receiving payments is indicated for the casual informal labourers for the period under study. Otherwise, concentration of workers devoid of enjoying some basic rights and social security benefits is found to be higher in 'Construction' and 'Manufacturing'-ironically two of the main industries providing maximum employment to both genders. Over time, quality of life (QOL) of workers improves in almost all the industries, 'Construction' being the only exception where the situation deteriorates and explains the overall worsening condition of employment in the non-agricultural sector over time. Proportion of workers having unions/associations to safeguard their interest is insignificant, particularly for self employed persons and casual labourers and declines further. Serious policy interventions are called for improving the QOL of rural workforce in general and informal sector workers among them in particular.

Motivation behind the present study stems from two basic known facts. First, defying the conventional paradigm of economic development, the non-agricultural sector in Indian economy, particularly services sector within it, contributes maximum share in GDP but displays disproportionate growth in employment as labour force grows at a much faster rate than employment does resulting in the mismatch between income growth and employment growth (Rangarajan, 2010). Thus agriculture continues to dominate the employment scenario despite contributing least share in GDP. Second, the size of the formal sector of our economy being limited, majority of the workforce languish in informal sector as opportunity cost of not accepting such employment is not unemployment but starvation (Sengupta, 2009). While this feature is true irrespective of whether we consider the urban or the rural sector, concentrating on the rural economy we notice that in recent years there has been some growth in non-agricultural activities. It is in this background that we intend to carry out a study to examine the change in extent and pattern of rural workforce in general and informal workforce within it in particular.

*Associate Professor in Economics, Vivekananda College, Kolkata, West Bengal, India.

**Analyst, Accenture Digital Capability, Gurgaon, Haryana, India.

***Guest Lecturer in Economics, Vivekananda College, Kolkata, West Bengal, India.



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The plan of the study is as follows. The second section renders a very brief literature review in this regard. Methodology and data are spelt out in the third section. Section 4 analyses the major findings. The final section summarises and concludes.

A BRIEF LITERATURE SURVEY

A huge volume of literature has culminated so far relating to the nature and pattern of rural workforce in general and that of informal workers' participation in particular. Below we report a brief review of some of the selected studies in this regard.

The paper on employment creation in the 12th five year plan by Mehrotra, Gandhi, Sahoo and Saha (2012) chalks out an important aspect of changing scenario of employment away from agriculture—a rising trend of non-farm employment in enterprises employing 20 or more workers and a declining trend in employment in enterprises employing less than 6 workers. This study also highlights the fact that the second half of the first decade of 21st century witnesses a surge in educated youth, especially women. So a proactive policy towards employment creation in the organized sector cannot be timed better.

In their study, Sakthivel and Joddar (2006) delineate unorganized from organized workers using both residual and direct approach. The study examines the growth and structure of formal and informal sector workforce by one-digit industry across major Indian states. They also examine the coverage of social security schemes among economically and socially vulnerable sections of the workforce, with particular reference to provident fund schemes in India. It is seen that in the non-farm sectors, the informal pie reduces for the higher income groups but in the agricultural sector, there is no such division i.e. share of the unorganized segment of the workforce remains flat. Their further analysis reveals that the coverage of social security schemes has been largely against economically and socially vulnerable sections and the self employed. The ever increasing army of casual and contract workers in the organised sector also face the same demon.

The study by Mitra (2006) spells out the variation in estimates of total informal workforce in the non-farm sector when surveyed through enterprises and household respectively. Leaving aside magnitude both the surveys display similar trends (for example both the surveys indicate that own account enterprises comprise the bulk of informal sector workers)

In another paper on the informal labour market, Marjit and Kar (2009) analyse the deregulated market in the post-reform scenario in India and suggest that liberal economic environment may benefit the informal workers, by raising both wages and employment under certain conditions that depend on inter-sectoral capital mobility. However in the process, agriculture and formal manufacturing may suffer. This paper is



quite innovative in the sense that it tries to capture the informal sector dynamics in the general equilibrium framework.

The pioneering work by the Sengupta committee (2009) reviews the status of informal sector in India including the nature of enterprises, their size, spread and scope and most importantly the magnitude of employment. It focuses on the dismal situation of the 77% of the Indian population who are stuck below the expenditure on average of Rs. 20 per day per capita and the commission rightfully term this class as the 'Poor and Vulnerable' who cannot reap even the fraction of the GDP growth benefits year after year in the post reform period. This group in the commission's word emerges as a sort of coalition of socially discriminated, educationally deprived and economically destitute. They have very little expansion of their employment as well as enhancement in their earning capacity. Moving on to their quality of employment, an intriguing finding is that around 94%-98% workers in this group belong to the informal sector that accept employment as the opportunity cost of it is not only unemployment but in most cases starvation. The pessimistic scenario does not seem to wash away that easily as the commission study projects an upsurge in the share of informal workers in the near future. It does not stop there as the problem of informal employment plagues the booming 'Manufacturing' sector in the post reform period. The report goes into the details of programmes directed specifically towards upliftment of informal sector which calls for working out of proper planning with the details of demand and supply analysis of employment in different occupations and later a proper implementation would ensure social development.

Sundaram (2008) from his analysis of the 55th and 61st round of NSS survey on employment and unemployment brings up the dark side of the 'organised' sector employment in India. His assessment of employment contracts of the regular wage/salaried works that accounts for the 88% of the organized sector workforce leads him to an inference that a major chunk (65%) of these workers be better labelled as informal workers for not getting any sort of social security benefits.

Kundu and Mohanan (2009) speak about formalisation of informal workforce in the second decade of globalisation and point out that the high growth in income and other economic indicators have been associated with increase in regional and social inequality.

METHODOLOGY AND DATA

As mentioned earlier, the present study looks into three aspects of rural work force in India on the basis of NSS data. First, it considers the overall work participation rates according to usual status (principal status plus subsidiary status) for rural sector over different quinquennial NSS rounds of employment - unemployment surveys. And, then, workers' participation (PS+SS) by broad sectors (agricultural and non-agricultural) as well as by status of employment (self employed person, regular wage/salaried employee, and casual labourer) is examined. The analysis carried out up to this level is expected to highlight some basic changes in the level and pattern, of workforce in rural India over time.

Analysis in Part 2 addresses informal sector workers as they predominate the working arena of Indian economy irrespective of whether its rural or urban sector is concerned. Since the present study is devoted to an assessment of rural workers' participation over time, fuller treatment necessitates an overall review of these workers as well. Some pertinent comments at this stage.

(1) The NSSO though collects data on employment-unemployment situation in India since 1972-73; it is only 1999-2000 when data are collected on informal sector for the first time, using the guideline for the



coverage of informal sector and informal employment as per the 15th International Conference of labour statisticians (ICLS) and 17th ICLS.

(2) The concept of informal sector refers to the production units as observation units whereas the concept of informal employment signifies jobs as observation units. Beginning with 1999-2000, till date, NSSO has collected data on informal sector for 2004-05 and 2009-10.

(3) In 1999-2000, data were collected for informal workers engaged in non-agricultural sector only. Since 2004-05, data on informal workers are collected for non-agricultural sector industry division 02-99 of NIC-2004 as well for agricultural sector excluding growing of crops, market gardening, horticulture and growing of crops combined with farming of animals (AGEGC sector for short henceforth). The AGEGC sector thus refers to industry groups/division 012, 014, 015, 02 and 05 of NIC-2004. The complementary part of AGEGC sector, known as AGGC sector, which absorbs maximum rural workforce of both genders is kept outside the purview of the present study. This issue however does not seem to affect the assessment of changing pattern in the rural workforce as proportion of workers in Agricultural sector declines overtime in both AGGC and AGEGC sectors, implying thereby a continuous rise of rural workforce in the non-agricultural sector (Table 2). This aspect however restricts the period of our analysis, limiting it to 2004-05 and 2009-10 for considering informal workers in AGEGC and Non-agricultural sector as a whole.

(4) Finally, as per NSSO reports, informal sector means Proprietary and Partnership (P&P in short henceforth) enterprises while all enterprises include government/public limited company, co-operative societies, trusts and employer households. Proportion of workers in AGEGC and non-agricultural sectors is found to be small and such enterprises could not be distinguished as formal or informal. Workers absorbed in these enterprises are therefore excluded from the coverage of informal sector as per NSS reports. Also, share of employment in the enterprise-type 'employer household' is excluded from the coverage of informal sector.

After an analysis of the nature of participation of workers engaged in 'P&P' enterprises vis-à-vis all enterprises in AGEGC and non-agricultural sectors during 2004-05 and 2009-10, the final part of the present study looks into some qualitative aspects of workers in these two sectors as a whole. These aspects include 'method of payment', 'provision of written job contract', 'eligibility for paid leave', 'eligibility of getting any social security benefit' (PF/pension, gratuity, health care and maternity benefit), for Regular Employee and Casual Labourers and 'existence of trade unions' for all statuses of employment. This final part seems to throw some light regarding the quality of life (QOL) of workers in general and informal workers in particular, engaged in AGEGC and non-agricultural sectors of rural India.

RESULTS OF ANALYSIS

In this section, major findings of the three parts are analysed.

Rural Workforce Over Time: An Overall View

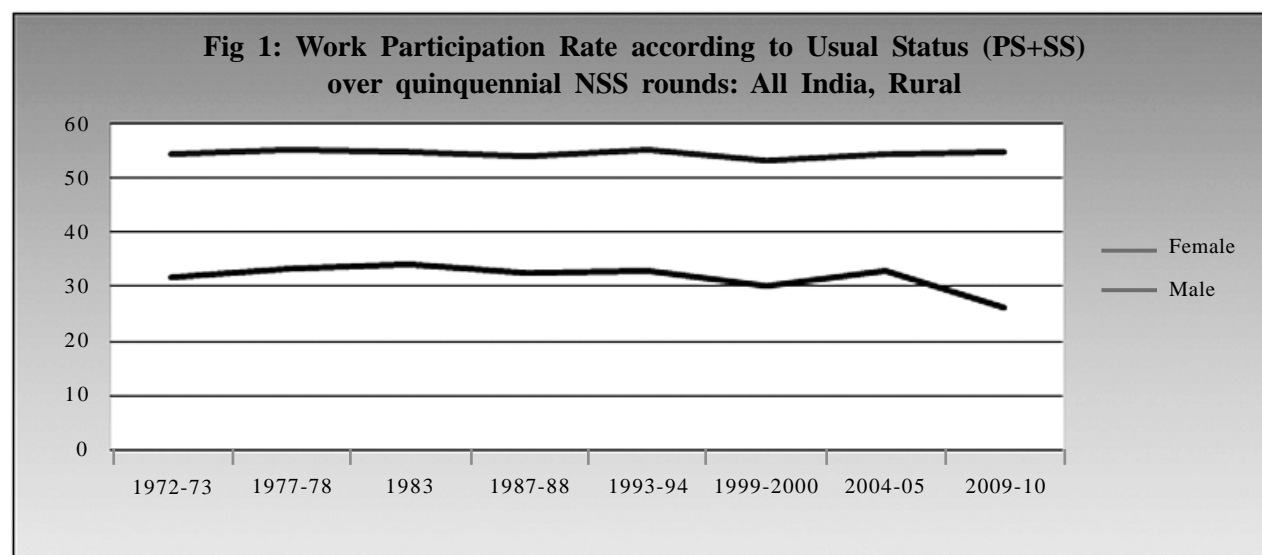
Work participation rates according to usual status (principal status+subsidiary status) in the rural sector (Table 1 and Fig 1) show little variation in male workers' participation (54.5% in 1972-73, no visible trend over the NSS rounds and 54.7% in 1999-2000). Female workers participation is consistently smaller compared to the same of their male counterparts. No definite trend is noticed; however the rate is considerably smaller in 2009-10 (26.1%) than what it was in the beginning (31.8%).



**Table 1: Work Participation Rate according to Usual Status (PS+SS)
over quinquennial NSS rounds: All India, Rural**

Principal Status+Subsidiary Status (Rural)								
Gender	1972-73	1977-78	1983	1987-88	1993-94	1999-2000	2004-05	2009-10
Male	54.5	55.2	54.7	53.9	55.3	53.1	54.6	54.7
Female	31.8	33.1	34.0	32.3	32.8	29.9	32.7	26.1

Source: Various NSS reports on employment-unemployment situation in India



Source: Various NSS reports on employment-unemployment situation in India

It is a well-known fact that over the years, among the rural workers themselves, there has been a shift from agricultural to non-agricultural sector (Table 2 and Fig 2). Instead of considering the long period, the study now focuses on the last decade (1999-2000 to 2009-10) and points out that for the agricultural sector (and particularly the AGGC sector within it) which otherwise provides maximum employment to workers

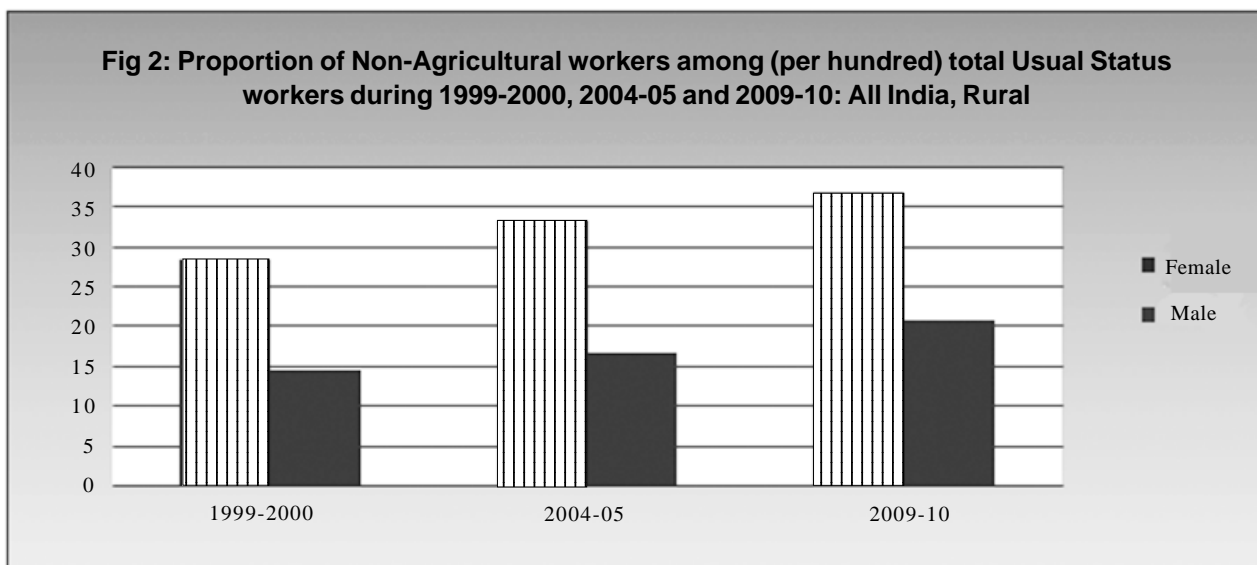
**Table 2: Proportion of Non-agricultural Workers among (per hundred) Usual status workers (PS+SS)
during 1999-2000, 2004-05 and 2009-10: All India, Rural**

Category of Worker	Proportion of Non-agricultural workers in		
	1999-2000	2004-05	2009-10
Male	28.6	33.5	37.1
Female	14.6	16.7	20.7
Person	23.7	27.3	32.0

Source: NSS Report No. 456,519,539



of both genders (**Table 3**) extent of dominance declines at a slightly faster rate for females during the period spanning from 2004-05 to 2009-10.



Source: Same as in Table 2

Table 3: Distribution of Usual Status (PS+SS) Workers by Industry Group/Division during 2004-05 & 2009-10: All India, Rural

Category of Worker	AGGC Sector		AGEGC Sector		Non-Agricultural Sector		All	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Male	63.1	60.3	3.4	2.6	33.5	37.1	100	100
Female	69.0	69.0	14.3	10.3	16.7	20.7	100	100
Person	65.3	63	7.4	5.0	27.3	32.0	100	100

Source: NSS Report Nos. 519, 539

Distribution of workers by status of employment clearly indicates that concentration of 'self-employed' persons is highest (more than half of the workers in 2009-10) among workers and together with the same of 'casual labourers' stand at around 90% in both periods, a little higher for females. Obviously this means meagre numerical strength of regular workers among per 100 total workers. Over time concentration of self employed persons declines while that of 'casual labourers' increases, in both public works and other than of public works more steadily for females (Table 4.1.3). Proportion of regular wage/salaried employees, on the other hand increases mainly among female workers. This explains the rise in the extent of concentration of both genders particularly females in the non-agricultural sector during the period of study.



Table 4 : Distribution of Usual Status (PS+SS) Workers by Status of Employment during 1999-2000, 2004-05 & 2009-10

Category of Worker	Self employed		Regular wage/salaried employee		Casual labourers in Public work		Casual labourers in other than Public work		Total	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
2Male	58.1	53.5	9.0	8.5	0.2	0.8	32.7	37.2	100	100
Female	63.7	55.7	3.7	4.4	0.2	2.4	32.4	37.5	100	100
Person	60.2	54.2	7.1	7.3	0.2	1.3	32.6	37.3	100	100

Source: Same as in Table 3

For better understanding in this regard, one should now delve further into and analyse the nature of work participation of informal sector workers as they constitute the majority of Indian workforce irrespective of whether rural or urban sector is concerned. It is to this that we turn next, for the rural India as a whole.

Nature Of Work Participation In 'P&P' Enterprises vis-à-vis All Enterprises

Workers engaged in 'Proprietary and Partnership' (P&P) enterprises in AGEGC and non-agriculture sectors are largely considered as informal sector workers as per NSS data. In this section, their participation vis-a-vis participation of workers in all enterprises is analysed from two dimensions: i) by industry groups and ii) by status in employment. But before we take up these two dimensions one by one, we note from Table 5 that it is Proprietary enterprises, in particular male proprietary enterprises in which informal sector workers are mainly engaged. And it is the decline in their concentration in such enterprises that mainly explains decline in the proportion of informal sector (P&P) workers during the period from 2004-05 to 2009-10. While this observation is true for both genders, female informal sector worker's proportion decline in female proprietary enterprises as well.

Table 5: Proportion of Workers engaged in Proprietary & Partnership (P&P) enterprises among (per hundred) Usual Status (PS+SS) engaged in AGEGC & Non- agricultural Sectors by area of residence during 2004-05 & 2009-10: All India, Rural

Category of Worker	Percentages of Workers Engaged in Enterprises									
	Proprietary				Partnership				P&P	
	Male		Female		Within same Household		From Different Household			
2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	
Male	75.3	69.8	0.8	0.8	1.7	1.6	1.5	2.0	79.2	74.2
Female	46.0	36.6	37.7	33.8	2.1	2.6	0.5	1.3	86.4	74.4
Person	65.7	61.2	12.8	9.4	1.8	1.8	1.2	1.8	81.6	74.2

Source: Same as in Table 3



Two pertinent comments at this stage: i) despite this decline, vast majority of P&P enterprises (74% in 2009-10) still continue to languish as informal workers in AGEGC and non-agricultural sector as a whole. ii) Ours is effectively a study based on two rounds of NSS data; unless and until it is carried out for several rounds and this feature relating to informal worker's proportion is verified, we are not in a position to infer that there has been a shift of workers from P&P enterprises to other enterprises in rural economy. Nevertheless in the present study one may attempt to identify the industries and statuses in employment which can account for this result.

Participation By Industry Group/Section

Considering first the broad sectors viz. AGEGC and non-agricultural sectors, separately as well as jointly, one notices that informal worker's participation falls in both (Table 6.) and within the latter sector it falls in almost all industries for male workers, ranging from industries where the concentration is usually much higher (and despite a decline in 2009-10, is still considerably high) to the industries where it is usually low. For females, the picture is somewhat mixed. In a number of industries their pattern of participation is similar to their male counterparts so far as the nature of decline is concerned.

Table 6: Informal Worker's Participation

Category of worker	AGEGC Sector		Non-Agricultural Sector		AGEGC & Non-Agricultural Sector	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Male	90.4	90.6	78.1	73	79.2	74.2
Female	97.2	95.0	77.1	64.1	86.4	74.4
Person	95.2	93.4	77.9	71.3	81.6	74.2

Source: Same as in Table 3.

Construction, however deserves special mention as it records a massive fall in female informal workers proportion and together with a decline in such proportion in health and social work offsets the otherwise rise in female informal worker's concentration in manufacturing, transport, storage and communication and financial intermediation and accounts for the overall decline of female informal workers' proportion in AGEGC and non-agricultural sectors as a whole (Table 7).

Distribution of informal sector workers vis-à-vis the same of workers in 'all' enterprises in the economy highlights that, for males, 90% of total informal sector workers and a little more than it in 'all' enterprises are engaged in non-agricultural sector (Table 8).

Within this sector again, the industries which contribute mainly in this regard are 'Manufacturing', 'Construction', 'Wholesale and Retail trade, Repair of Motor vehicles, Motor cycles and Personal and Household goods' and to an extent 'Transport, Storage and Communications'. For female workforce, the picture is different as more than half of them and a little less are engaged in 'P&P' enterprises and 'all' enterprises of AGEGC sector respectively .

Their engagement in the non-agricultural sector, for both the enterprises, is attributable to aforementioned industries, barring 'Transport, Storage and Communications'. In this case 'Manufacturing' tops the list absorbing more than half of female workers engaged in both types of enterprises of non-agricultural sector.



Table 7: Proportion of Informal Sector (P&P) Workers Among (per hundred) Usual Status workers (PS+SS) in different industry group/sections during 2004-05 & 2009-10: All India Rural

Sectors	Proportion of Informal Sector Workers Among Workers in Rural Areas					
	Male		Female		Person	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
AGEGC	90.4	90.6	97.2	95	95.2	93.4
Mining and Quarrying	71.9	63.8	79.8	62.9	73.6	63.7
Manufacturing	85.9	82.9	91.6	92.6	88.1	86.1
Electricity, Gas and Water Supply	8.7	9.8	11.2	0.0	8.8	9.1
Construction	80	69.2	71.8	36.7	79.1	63.6
Wholesale and retail trades; repair of Motor vehicles; motor cycles and personal and household goods	93.7	90.8	95.7	95.6	93.9	91.4
Hotels and Restaurants	94	91.8	93.3	90.5	93.9	91.6
Transport, Storage & communications	83	82.2	67.1	80.6	82.6	82.2
Financial Intermediation	28.4	24.9	48.6	80.4	30.2	31.0
Real Estate, renting and Business activities	86.9	79.8	78.5	76.7	86.4	79.6
Education	26.7	24.3	28.5	24.1	27.4	24.2
Health and social work	60.1	60.3	36.4	21.6	52	43.3
Other community, Social and personal service activities	85.3	82.5	93.2	75.5	87	81
Non-Agriculture	78.1	73	77.1	64.1	77.9	71.3
AGEGC & Non-agriculture	79.2	74.2	86.4	74.4	81.6	74.2

Source: Same as in Table 3.

Over time female workers follow their male counterparts' pattern and display a considerable decline in AGEGC sector to get employed in the non-agricultural sector. And it is these three industries where female workers' concentration increases over time, in both types of enterprises, 'Construction' recording highest rate of increment, and that too at a much higher rate in all enterprises. This feature along with earlier observation relating to decline in female workers proportion in construction, it persists in future as well, would suggest gradual shift of female informal (P&P) sector workers to other enterprises in 'Construction'. For males it may be noted that among the above mentioned industries, it is only 'Construction' which registers a rise in 2009-10 and explains male non-agricultural workers' rise in this period for both P&P enterprises and all enterprises, to a great extent.



Table 8: Distribution of workers (PS+SS) in AGEGC and Non-Agricultural Sectors (P&P) enterprises and 'all' types of enterprises by Industry groups/sections during 2004-05 and 2009-10 : All India Rural

Industry group/section	Male				Female				Person			
	P&P		All		P&P		All		P&P		All	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
AGEGC	10.5	7.9	9.2	6.5	52	42.5	46.2	33.3	24.8	16.9	21.3	13.4
Mining and Quarrying	1.6	1.8	1.7	2.1	0.9	0.7	0.9	0.8	1.3	1.5	1.5	1.7
Manufacturing	23.3	19.7	21.5	17.6	28.6	30.2	27	24.3	25.1	22.5	23.3	19.4
Electricity, Gas and Water Supply	0.1	0.1	0.6	0.5	0	0	0	0.1	0	0.1	0.4	0.4
Construction	18.7	26.4	18.5	28.4	3.9	8.3	4.7	16.8	13.6	21.7	14	25.4
Wholesale and retail trades; repair of Motor vehicles; motor cycles and personal and household goods	23.8	22.1	20.1	18	7.3	9.4	6.6	7.3	18	18.8	15.7	15.3
Hotels and Restaurants	2.8	3	2.3	2.4	1.6	1.9	1.5	1.6	2.4	2.7	2.1	2.2
Transport, Storage & communication	10.8	11.6	10.3	10.4	0.4	0.7	0.5	0.7	7	8.7	7.1	7.9
Financial												
Intermediation	0.3	0.3	0.8	0.9	0.1	0.3	0.2	0.3	0.2	0.3	0.6	0.7
Real Estate, renting and Business activities	1.2	1.2	1.1	1.1	0.1	0.2	0.1	0.2	0.8	0.9	0.8	0.9
Public Administration and Defence; Compulsory Social Security	—	—	3.2	3.1	—	—	0.8	1.5	—	—	2.4	2.7
Education	1.5	1.3	4.3	3.8	1.8	2.1	5.3	6.6	1.6	1.5	4.6	4.6
Health and social work	0.9	0.6	1.2	0.8	0.6	0.5	1.3	1.8	0.8	0.6	1.3	1
Other community, Social and personal service activities	4.7	4.1	4.4	3.7	2.8	3	2.6	2.9	4.1	3.8	3.8	3.5
Private Households with employed persons	—	—	0.7	0.7	—	—	2.2	1.8	—	—	1.2	1
Extra-territorial organizations and bodies	—	—	0	0	—	—	0	0	—	—	0	0
Non-Agricultural	89.5	92.1	90.8	93.5	48.0	57.5	53.8	66.7	75.2	83.1	78.7	86.6
AGEGC & Non-Agricultural	100	100	100	100	100	100	100	100	100	100	100	100

Note: By definition, Industry division 'Public Administration and Defence; Compulsory Social Security', 'Private Households with employed persons' and 'Extra-territorial organizations and bodies' cannot be in the Informal Sector.

Source: Same as in Table 3.



Table 9: Proportion Of Workers Engaged In Enterprises Using Electricity Among (Per Hundred) Workers (Ps+Ss) Of Manufacturing Enterprises And All Enterprises In Agege & Non-agricultural Sectors Separately For P&P And All Enterprises Type During 2004-05 & 2009-10

Manufacturing Enterprises				
	Male		Female	
	2004-05	2009-10	2004-05	2009-10
P & P	29.9	33.7	9.4	13.5
All	35.3	38.6	10.5	14.0
Enterprises in AGEGC & Non-Agricultural sectors				
P & P	11.7	13.5	5.0	7.4
All	13.3	15	5.4	7.2

Source: Same as in Table 3.

Two important issues relating to informal sector workers' participation may be noted at this stage. Of all industries, it is 'Manufacturing' which requires maximum usage of electricity for raising its productivity. Quite expectedly, proportion of workers engaged in 'P&P' as well as 'all' enterprises, both including 'Manufacturing' and other industries is much smaller compared to the same, in both enterprises exclusively for 'Manufacturing' (Table 9.). In the case of the latter, however, percentages of workers in 'P&P' enterprises are considerably less than those in the 'all' enterprises, mainly due to their smaller proportion in proprietary enterprises. Considerable gender differentials exist in this case and females whose concentration otherwise is maximum in 'Manufacturing', lag far behind their male counterparts. Overtime the situation improves a little bit, but still remains an area of concern, particularly for the female informal workers.

Participation By Status In Employment

So far as status in employment is concerned, majority of self employed persons and casual labourers, particularly of the former ones (in the form of own account workers, mainly, for males and along with own account workers, helpers in household enterprises for females (Table 10)) are engaged as informal workers, proportion of which, quite expectedly, is comparatively small among

Table 10: Distribution of Usual Status Workers (PS+SS) in AGEGC & Non-agricultural Sector engaged in Informal sector (P&P) enterprises and 'all' types of enterprises by Status in Employment during 2009-10: All India, Rural

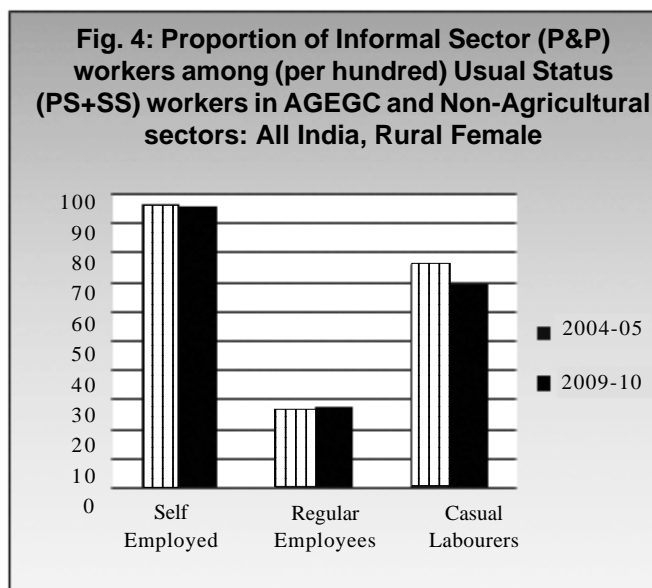
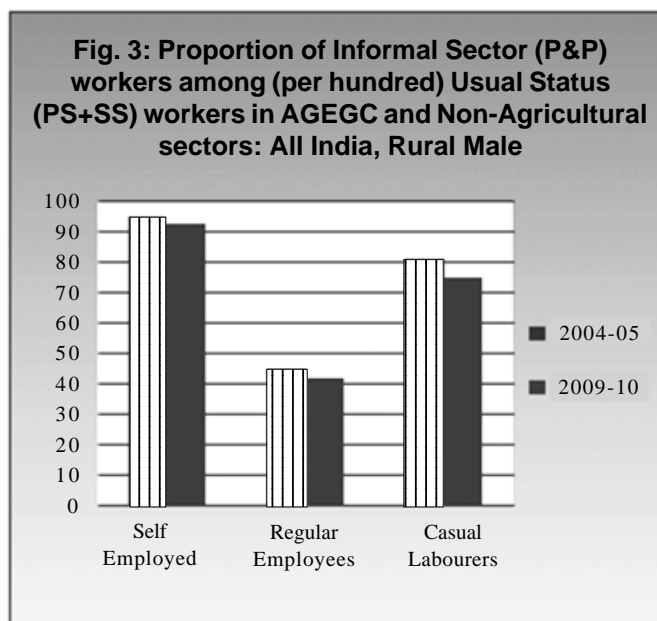
Status in Employment	Male		Female		Person	
	P&P	ALL	P&P	ALL	P&P	ALL
Own account worker	44.6	36.0	42.3	33.2	44.1	35.3
Employer	0.8	0.7	0.1	0.1	0.6	0.5
Helper in household enterprise	8.1	6.5	35.1	26.8	15.1	11.8
Self Employed	53.5	43.2	77.5	60.1	59.8	47.6
Regular Employees	11.5	20.1	5.0	13.3	9.7	18.3
Casual Labourer in Public works	—	1.9	—	7.9	—	3.5
Casual Labourer other than in Public works	35.0	34.8	17.5	18.7	30.5	30.6
Total	100	100	100	100	100	100

Note: By definition, 'P&P' workers among Casual labourers cannot be engaged in Public workers

Source: NSS Report no. 539



regular employees (Table 11 and Fig. 3. and Fig. 4.). It is pertinent to note that over time proportion of informal sector workers declines for all these three categories. This finding along with earlier observation that proportion of casual labourers among total workers increases at a faster rate in public works, if persists in future as well would suggest towards gradual shift of informal casual labourers to formal works.



Source: Same as in Table 3.



Table 11: Proportion of Informal Sector (P&P) Workers among (per hundred) Workers (PS+SS) engaged in AGEGC & Non-agricultural Sectors for different Status in Employment during 2004-05 & 2009-10: All India, Rural

Proportion of Informal Sector Workers Among Workers in						
Status in Employment	AGEGC Sector		Non-agricultural Sector		AGEGC & Non-agricultural Sector	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
MALE						
Own account worker	93.7	95.5	94.6	91.7	94.5	92.1
Employer	100.0	100.0	98.5	94.8	98.6	94.9
Helper in household enterprise	93.6	95.8	96.7	92.2	96.0	92.8
Total Self Employed	93.7	95.6	95.0	91.8	94.8	92.2
Regular Employees	65.4	58.7	44.0	41.4	44.5	41.7
Casual Labourers	86.3	85.3	80.5	74.4	80.8	74.8
All	90.4	90.6	78.1	73.0	79.2	74.2
FEMALE						
Own account worker	97.3	97.2	96.4	92.6	96.9	94.9
Employer	100.0	100.0	96.3	91.2	97.5	92.1
Helper in household enterprise	97.7	97.4	96.7	97.3	97.4	97.4
Self Employed	92.6	97.3	96.6	94.6	97.2	96.0
Regular Employees	72.7	87.1	25.8	26.8	26.3	27.4
Casual Labourers	90.1	86.2	73.8	68.2	76.0	69.7
All	97.2	95.0	77.1	64.1	86.4	74.4
PERSON						
Own account worker	96.1	96.6	94.9	91.9	95.2	92.8
Employer	100.0	100.0	98.4	94.6	98.5	94.8
Helper in household enterprise	97.1	97.1	96.7	94.5	96.9	95.5
Self Employed	96.6	96.8	95.4	92.4	95.8	93.5
Regular Employees	66.0	62.2	40.5	38.6	41.1	39.0
Casual Labourers	87.5	85.6	79.4	73.4	80.0	74.0
All	95.2	93.4	77.9	71.3	81.6	74.2

Source: Same as in Table 3.



One interesting issue on the basis of status in employment may be noted.

Average wage/salary earnings of Regular employees in 'P&P' enterprises are less than half of what they receive in 'all' enterprises. Condition of workers engaged in employers' household is worse. While this is true for both genders, females get much lower payment than their male counterparts. Casual labourers, on the other hand, receive higher earnings in 'P&P' enterprises than in 'all' enterprises. Their condition in employers' household however remains the same. Gender differentials though exist, are not pronounced. Over time, earnings rise for workers of both statuses, at a much higher rate for the regular employees (Table 12).

Table 12.: Average Wage & Salary Earnings (Rs.) per day received by wage/salaried employees according to Usual Status (PS+SS) engaged in AGE GC & Non-Agricultural sectors who had same status in employment in Current Daily Status during 2004-05 & 2009-10

Male						
Status	P & P		Employer Household		All	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Regular Employee	81.82	142.12	65.15	133.89	151.96	256.69
Casual Labourers	69.1	118.33	60.51	82.48	68.54	115.18
All Employees	73.87	126.59	62.39	102.24	112.01	182.1
Female						
Status	P & P		Employer Household		All	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Regular Employees	53.26	107.04	29.72	58.75	87.79	161.13
Casual Labourers	44.75	81.94	41.12	65.76	44.01	80.88
All Employees	47.41	91.13	33.7	60.85	68.61	125.95

Source: Same as in Table 3.

QUALITY OF LIFE OF RURAL WORKERS ENGAGED IN AGE GC AND NON-AGRICULTURAL SECTORS

In this section, we first consider the distribution of workers by 'method of payments' which highlights the maximum prevalence of regular monthly salary among regular wage/salaried employees and that of daily payment among casual labourers (Table 13). While this is an expected result for both the genders, what is interesting to note is that among casual labourers, proportion of those getting weekly salary, increases over time. While for males this rise is accompanied, mainly by a fall in the proportion of casual labourers getting piece-rate payment, for females, it is the fall in proportion of workers receiving daily payment. Whatever be the case, one should remember that despite a decline in their proportion in 2009-10, majority of casual



labourers are still informal sector workers and this observation in the post-reform period definitely points towards formalisation of informal workers in rural India. This inference gets corroborated by two basic facts relating to Regular employees as well - quite a handful of them are Informal sector workers and majority of Regular workers receive regular monthly salary in the period under study.

Table 13: Distribution of usual status (PS+SS) Regular wage/salaried employees & Casual labourers engaged in AGEFC & Non-Agricultural sectors by method of payment during 2004-05 & 2009-10: All India, Rural.

Status in Employment	Method of Payment									
	Regular monthly salary		Regular weekly salary		Daily Payment		Piece rate Payment		Others	
	2004-05	2009-10	2004-09	2009-10	2004-09	2009-10	2004-09	2009-10	2004-09	2009-10
Male										
Regular wage / Salaried employees	86.90	87.20	4.30	4.50	2.30	3.40	1.90	1.60	2.50	2.40
Casual labourers	6.50	5.70	15.80	17.60	56.10	58.90	12.90	10.10	5.20	5.50
Female										
Regular wage / Salaried employees	80.50	84.50	8.10	5.90	0.90	1.90	6.50	4.20	2.00	2.70
Casual labourers	6.70	6.00	19.9*	25.70	40.50	32.50	24.10	26.50	6.30	8.50
Person										
Regular wage / Salaried employees	85.70	86.70	5.00	4.80	2.00	3.10	2.80	2.10	2.40	2.40
Casual labourers	6.50	5.80	16.50	19.20	53.30	53.60	14.90	13.40	5.40	6.10

Source: Same as in Table 3.



Table 14.: Distribution of Employees (PS+SS) without written job contract and engaged in AGEGC & Non-Agricultural sectors by Industry group/sections during 2004-05 & 2009-10: All India, Rural

Industry groups/sections	Male		Female		Person	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
AGEGC	4.9	3.6	8.6	6	5.6	4.1
Manufacturing	22.0	16.5	30.2	21.2	23.5	17.3
Construction	36.6	50.4	24.9	43.6	34.5	49.2
Wholesale and retail trades; repair of Motor vehicles; motor cycles and personal and household goods	8.7	5.3	1.6	1.3	7.4	4.6
Transport, Storage & communication	11.7	10.6	1.3	1.7	9.8	9.0
Education	2.9	2.7	10.6	10.1	4.3	4.0
Private Households with employed persons	1.6	1.4	11.6	5.6	3.4	2.2
Other Sections in Non-agricultural sector	13.2	10.9	22.8	16.1	14.9	11.8
Non-agricultural sector	95.1	96.4	91.4	94	94.4	95.9
AGEGC & Non-Agricultural Sectors	100	100	100	100	100	100

Source: Same as in Table 3.

QUALITY OF LIFE BY INDUSTRY GROUP/SECTION

We next consider the distribution of workers who are devoid of enjoying some basic rights and social securities in the form of 'written job contract', 'paid leave', 'social security benefits', which when viewed separately (Tables 14, 15 and 16) clearly indicate that their concentration is higher in 'Construction' and 'Manufacturing'- ironically two of the main industries providing maximum employment to both genders. Over time, quality of life of workers improve in almost all the industries, 'Construction' remaining the only exception where the situation deteriorates for both genders and explains the overall worsening condition of employment in the non-agricultural sector over time.



Table 15: Distribution of Employees (PS+SS) not eligible for paid leave and engaged in AGEGC & Non-Agricultural sectors by Industry group/division during 2004-05 & 2009-10: All India, Rural.

Sector/Industry groups/sections	Male		Female		Person	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
AGEGC	5.4	3.8	8.8	7.0	6.0	4.5
Manufacturing	21.6	16.3	31.8	19.1	23.4	16.8
Construction	39.1	53	25.8	50.7	36.7	52.5
Wholesale and retail trades; repair of Motor vehicles; motor cycles and personal and household goods	8.4	5.2	1.4	1.3	7.1	4.4
Transport, Storage& communication	11.7	10.3	1.1	1.5	9.8	8.5
Education	1.9	1.8	8.7	6.4	3.1	2.7
Private Households with employed persons	1.6	1.5	11.2	4.7	3.4	2.1
Other Sections in Non-agricultural sector	10.3	8.1	11.2	9.3	10.5	8.5
Non-agricultural sector	94.6	96.2	91.2	93	94	95.5
AGEGC & Non-Agricultural Sectors	100.0	100.0	100.0	100.0	100.0	100.0

Source: Same as in Table 3.

Table 16: Distribution of Employees (PS+SS) not eligible for any Social Security Benefits and engaged in AGEGC & Non-Agricultural sectors by Industry group/sections during 2004-05 & 2009-10: All India, Rural

Sector/Industry groups/sections	Male		Female		Person	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
AGEGC	5.00	3.70	8.30	6.70	5.60	4.30
Manufacturing	21.20	16.10	27.20	17.80	22.30	16.40
Construction	37.50	51.90	24.40	47.90	35.10	51.00
Wholesale and retail trades; repair of Motor vehicles; motor cycles and personal and household goods	9.00	5.60	1.60	1.30	7.60	4.70
Transport, Storage& communication	11.90	10.60	1.20	1.40	9.90	8.70
Education	2.80	2.20	13.30	9.30	4.80	3.60
Private Households with employed persons	1.60	1.50	11.50	5.10	3.50	2.20
Other Sections in Non-agricultural sector	11.00	8.40	12.50	10.50	11.20	9.10
Non-agricultural sector	95.00	96.30	91.70	93.30	94.40	95.70
AGEGC & Non-Agricultural Sectors	100.00	100.00	100.00	100.00	100.00	100.00

Source: Same as in Table 3.



QUALITY OF LIFE BY STATUS IN EMPLOYMENT

For both genders, again quite expectedly, proportions of such workers in each of the cases are found to be higher, to a great extent, among casual labourers than among regular employees. However over time, for both statuses, proportions of workers without written job contract increase for males while decline for females (Table 17).

Table 17.: Proportion of Employees without written job contract among (per hundred) workers (PS & SS) in AGEGC & Non-Agricultural Sectors for different status in Employment during 2004-05 & 2009-10

	AGEGC Sector		Non-Agricultural Sector		AGEGC & Non-Agricultural Sector	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Male						
Regular Employee	72.2	81.6	59.4	61.1	59.8	61.5
Casual Labourer	89.0	96.2	95.7	96.2	95.3	96.2
All Employees	84.5	93.5	79.2	83.6	79.4	83.9
Female						
Regular Employee	65.3	89.6	56.8	55.3	56.8	55.7
Casual Labourer	93.9	75.7	96.3	82.0	96.0	81.5
All Employees	92.1	76.5	76.9	72.7	78.0	72.8

Source: Same as in Table 3.

Proportion of temporary employees among regular employees falls for both genders; the same among casual labourers declines for males as well but increases for females (Table 4.3.3D).

Table 18.: Proportion of Temporary Employees among (per hundred) Employees (PS+SS) in AGEGC & Non-Agricultural Sectors for different status of Employment during 2004-05 & 2009-10: All India, Rural

Status of Employment	Percentages of Temporary Employees among Employees (PS+SS) in					
	AGEGC		Non-Agriculture		AGEGC & Non-Agriculture	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Male						
Regular Wage/ Salaried	45.4	45.2	32.1	31.5	32.4	31.8
Casual Labour	55.5	60.6	63	61.4	62.6	61.4
All Employees	52.8	57.7	48.9	50.7	49.1	50.9
Female						
Regular Wage/ Salaried	53.4	89.8	35.5	32.3	35.7	32.9
Casual Labour	61.2	79.6	66.8	68.6	66.1	69.5
All Employees	60.7	80.3	51.5	55.9	52.2	57.3

Source: Same as in Table 3.



Proportion of workers not eligible for paid leave among both Regular employees and Casual labourer increases for males. For females it is almost the other way round (Table 19.).

Table 19: Proportion of employees not eligible for paid leave among (per hundred) employees (PS & SS) in AGEGC & Non-Agricultural Sectors for different status in employment during 2004-05 & 2009-10 ; All India, Rural.

	AGEGC Sector		Non-Agricultural Sector		AGEGC & Non-Agricultural Sector	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Male						
Regular Wage/ Salaried	64.6	77.8	47.3	50.2	47.8	50.7
Casual Labour	86.0	98.7	96.0	96.5	95.3	96.5
All Employees	80.3	94.8	73.8	79.8	74.1	80.3
Female						
Regular Wage/ Salaried	50.3	92.0	48.7	47.6	48.7	48.1
Casual Labour	87.7	99.7	96.5	96.6	95.4	96.9
All Employees	85.3	99.2	73.1	79.4	74.0	80.6

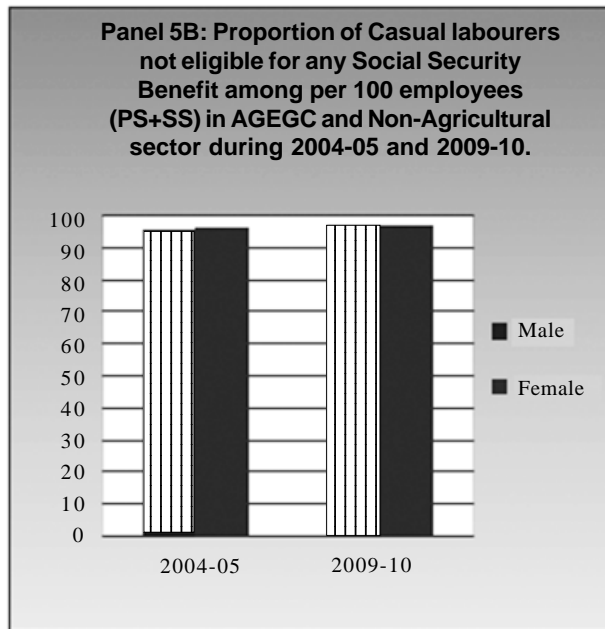
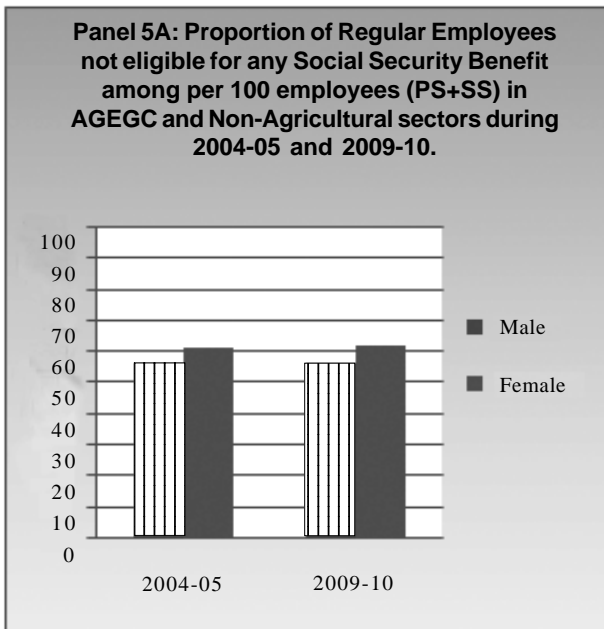
Source: Same as in Table 3.

Concentration of employees not eligible for getting any social security benefit increases among both Regular employees and Casual labourers for both males and females over time (Table 20. and Fig 5A & 5B)

Table 20: Proportion of employees not eligible for any social security benefit among (per hundred) employees (PS & SS) in AGEGC & Non-agricultural Sectors for different status in Employment during 2004-05 & 2009-10

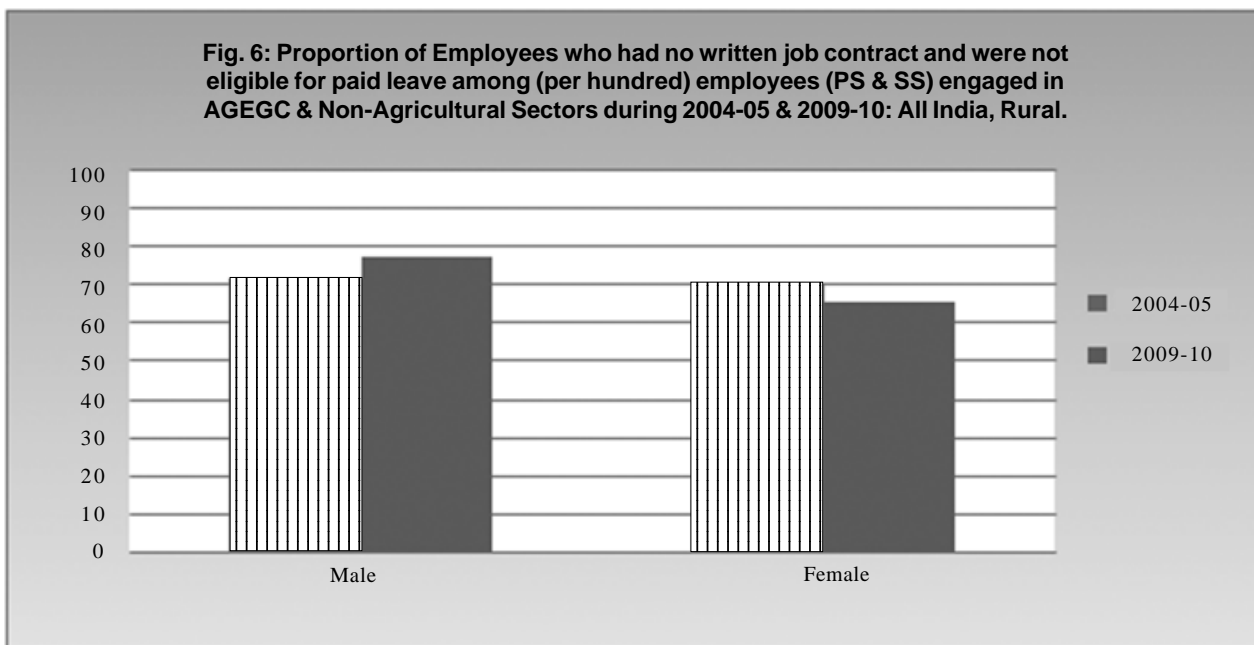
Male	AGEGC Sector		Non-Agricultural Sector		AGEGC & Non-Agricultural Sector	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Regular Employee	72.9	78.4	55.5	55.8	56	56.2
Casual Labourer	88.6	97.2	95.8	96.7	95.4	96.7
All Employees	84.4	93.7	77.5	82	77.8	82.3
Female	AGEGC Sector		Non-Agricultural Sector		AGEGC & Non-Agricultural Sector	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Regular Employee	65.3	92	60.8	61.5	60.9	61.8
Casual Labourer	92.8	99.5	96.3	96.5	95.9	96.7
All Employees	91	99.1	78.9	84.2	79.8	85.1
Person	AGEGC Sector		Non-Agricultural Sector		AGEGC & Non-Agricultural Sector	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Regular Employee	72.3	80.1	56.5	56.9	56.9	57.3
Casual Labourer	89.9	98	95.9	96.6	95.5	96.7
All Employees	86.1	95.3	77.7	82.4	98.2	82.9

Source: Same as in Table 3.



Source: Same as in Table 3.

Proportion of workers without written job contract and ineligible for paid leave are higher among males and during the period under study increases further while falls for females implying thereby an improvement of QOL of female workers in this regard (Fig 6.).



Source: Same as in Table 3.



Finally proportion of workers having unions/associations to safeguard their interest is insignificant, particularly for self employed persons and casual labourers and falls further.

Table 21: Proportion of Workers with non-existence of Union/Association in their activity among (per hundred) Usual Status (PS+SS) workers of age 15 years & above during 2004-05 & 2009-10: All India, Rural.						
Status in Employment	Male		Female		Person	
	2004-05	2009-10	2004-05	2009-10	2004-05	2009-10
Self employed persons	76.3	82.1	83.7	88	79.5	84
Regular wage/salaried employees	50.9	54.7	52.9	54.9	51.3	54.7
Casual labourers	79	84.4	79	87.5	79	85.4
All	71.3	80.6	79.7	86.3	74	82.4

Source: Same as in Table 3.

SUMMARY AND CONCLUSION

We may now summarise the major findings relating to each of the three parts of our study.

Level and pattern of rural work participation over time: Summing up

- Females lag far behind their male counterparts so far as Usual Status (PS+SS) work participation is concerned. No definite trend is noticed for either gender in this respect. However with respect to the initial period (1972-73), the last period under study (2009-10). indicates no improvement for males while points towards further deterioration for females.
- The extent of predominance of agricultural sector (in both AGGC that provides maximum employment to both genders and AGEGC) declines over time implying thereby a gradual rise in the proportion of rural workforce in non-agricultural sector, at a slightly faster rate for females during the period spanning from 2004-05 to 2009-10.
- Concentration of self-employed persons, which is otherwise maximum (more than half of total workforce in 2009-10) and along with casual labourer stands at 90% in both periods, declines. Proportion of casual labourers, on the other hand, rises in both public works and other than in public works, at a much faster rate in the former (where the relevant proportion is almost insignificant in 2004-05) and more steadily for females. This finding clubbed with another observation that percentages of regular wage/salaried employees increase among the female workers, explains the rise in the extent of work participation of both genders, particularly females, in the non-agricultural sector during the period under study.

Nature of work participation in Proprietary & Partnership (P&P) enterprises vis-a-vis other enterprises: Summing up

Participation by Industry group/section

- Informal sector (P&P) workers in rural India are mainly engaged in proprietary enterprises, in particular, male proprietary enterprises which register a decline in such proportion during 2009-10 and



explains, extent the fall in the concentration of informal sector workers among workers engaged in AGEGC and non agricultural sector as a whole.

- Though a vast majority (74% in 2009-10) of the working population still languish as informal sector workers, declines in their concentration, if persists in future as well, may seem to point to ward a positive result so far as the nature of work participation is concerned. Concentrating on the scenario in 2009-10, it is observed that within the non agricultural sector, for males this proportion declines in almost all industries - ranging from industries where their numerical strength is substantial to the industries where it is usually low. For females, the picture is somewhat different. Here, in a number of industries, nature of their declining proportion is similar to that of their male counterparts. 'Construction' however deserves special mention as it records a massive fall in female informal workers' proportion and together with a decline in such proportion in 'Health and Social Work' not only offsets the otherwise rise in female informal worker's concentration in 'Manufacturing' 'Transport, Storage and Communication' and 'Financial Intermediation' but accounts for also the overall decline of female informal workers' proportion in AGEGC and non-agricultural sector as a whole.
- For males distribution of Informal sector (P&P) workers vis-à-vis distribution of workers in all enterprises clearly indicate that around 90% of them are engaged in non-agricultural sector mainly in 'Construction', 'Manufacturing', 'Wholesale and retail trades; repair of Motor vehicles; motor cycles and personal and household goods' and 'Transport, Storage & Communication '. Over time, it is their rise primarily in these industries leads to a rise in their overall concentration in non-agricultural sector. For females, the scenario is quite different in 2004-05 as 50% of informal workers and 40% of workers in all enterprises and engaged in AGEGC sector. In 2009-10, considerable decline in their proportion is noticed in AGEGC sector implying thereby a rise in their proportion in non-agricultural sector wing mainly to their greater concentration in same above mentioned industries barring 'Transport Storage and Communication'. In both types of enterprises ' Construction' records the highest rate of increment , among all industries and between two enterprises, the rate of increment is much higher for 'all' enterprises. This finding , along with earlier one relating to declining proportion of female informal workers in ' Construction' hints towards shift of female informal workers to other enterprises in 'Construction'.
- In 'Manufacturing' enterprises proportion of informal sector workers using electrically for raising productivity is smaller than the workers in 'all' enterprises and females, where concentration is otherwise maximum in 'Manufacturing'. Lag far behind their male counterparts. Over time, though the situation improves a little bit, leaves as an area of concern , particularly for female workers.

Participation by Status in Employment

So far as status in employment is concerned , majority of self employed persons and casual labourers, particularly of the former ones (in the form of own account workers mainly for males and along with own account workers, helper in household enterprise for females) are engaged as informal workers. Proportion of informal sector workers are 'quite expectedly, comparatively small among regular employees. It is however pertinent to note that over time proportion of informal sector workers declines for all these three categories. This finding, along with earlier observation that proportion of



casual labourers among total workers increases, at a faster in public workers, if persists in future as well, suggest towards gradual shift of informal casual labour to formal works.

One interesting observation on the basis of status of employment.

- Average wage/ salary earnings of regular employees in ('P&P') enterprises are less than half what they receive in 'all' enterprises. Considerable gender differentials are noticed. Casual labourers, on the other hand, receive higher earning in ('P&P') enterprises than in 'all' enterprises. Gender differential, though exist, are not pronounced. Over time, earnings rise for workers of both statuses, at a much higher rate for the regular employees.

Quality of Life of Rural Workers engaged in AGEGC and non-agricultural sector:

Summing up

- Among casual labourers, proportion of those getting weekly salary, increases over time, either at the cost of decline in the proportion of workers getting piece-rate payment (for males) or at the cost of decline in such proportion of workers receiving daily payment (for females). Despite a decline in their proportion in 2009-10, majority of casual labourers are still informal sector workers and this observation in the post-reform period points towards formalisation of informal workers in rural India. The facts that quite a handful of regular employees are informal sector workers and majority of regular employees receive regular monthly salary in the period under study reinforce this suggestion.
- Proportions of workers who are devoid of enjoying some basic rights and social securities are higher in Construction and Manufacturing-ironically in two of the main industries providing maximum employment to both genders. Overtime QOL of workers improve in all the industries, Construction remaining the only exception where the situation deteriorates for both genders and explains the overall worsening condition of employment in the non-agricultural sector over time.
- QOL by status in employment points towards pathetic working condition of rural workforce though the situation indicates little improvements for females regarding written job contract and paid leave, the overall scenario is quite alarming and calls for suitable policy intervention for rural workforce as a whole and informal workers in particular.

In conclusion, this three-fold study of assessing the changing pattern of rural workforce in Indian economy clearly highlights the extreme vulnerable working environment of informal sector workers who otherwise overwhelmingly predominate the working scenario. This finding is true irrespective of whether condition of such workers is evaluated on the basis of industries or in terms of status in employment. Though formalization in the mode of receiving payments is indicated for informal casual labourers, it is the QOL of this vast majority in the working arena that raises doubts about their sustainability in future and calls for serious policy interventions.

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- i See NSS Report No.459 for the definitions of informal sector and informal employment in India.
 - ii For a detailed description of sector, industry group/division,see NSS report Nos.519 and 520
 - iii See NSS Report No. 519 for an understanding of different enterprises in India.
 - iv Aspects of social security benefits at the workplace are analyzed at length in report Nos. 519 and 539.
 - v For an understanding of the concept of Quality of Life (QOL),see Partha Das Gupta(2001).



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NEW PENSION SYSTEM— A TOOL OF OLD AGE INCOME SECURITY IN INDIA

Sukhen Kali*

Abstract: Lot of discussions are going on regarding the fate of the pension in the last decade or so, especially after the implementation of the New Pension System by the Central Government of India for their employees (except personnel of Armed Forces) with effect from 1st January, 2004. The main feature of this system is that Government is no more responsible to provide guaranteed pension to the employees on the basis of salary last drawn and the no. of completed years of service but the responsibility of the Government will be restricted to a fixed amount of monthly contribution based on the employee's salary. Pension will be determined on the pension wealth of the Individual Retirement Account opened for each participant i.e. from defined benefit form pension is converted to defined contribution form. As per the recent development, NPS is now available to the all major individuals in India within the age limit of 55 years from 1st May, 2009.

In the era of LPG (Liberalization, Privatisation and Globalization), reform programmes in different areas like Insurance sector, Banking sector, Telecom sector, pension etc have been taken by the Government of India. Pension reform is one of the important and controversial issues among the reform programmes which are going on in current time.

India is a developing country and like most other such type of countries, India does not have a comprehensive social security net for all aged population to protect them from economic hazards. High rates of poverty, though several measures of poverty eradication programme have been taken by the government after independence, and high rate of unemployment are mainly responsible to institute a pay-roll tax financed state pension programme for all citizen at their old age. At present most of the retirement benefit schemes are run and financed by the participation of both employer and employee. When we talk about the old age economic support for the employee of unorganized sector, the picture is almost blank.

TYPES OF RETIREMENT BENEFITS

Retirement benefits can be broadly classified into two categories:

- a) Defined benefit retirement benefit: In this case, benefits are guaranteed at the time of retirement . It generally depends on the length of service and last salary drawn of the concerned employee at the time of retirement. Gratuity is one of the examples of defined benefit system.
- b) Defined contribution benefit: If the benefits are not assured or guaranteed but it depends upon the performance of the fund created for the purpose, these are known as defined contribution benefit. Return on Provident Fund is the example of this type of benefit. New Pension System (NPS) is based on defined contribution basis where pension benefit is not guaranteed rather it will depend on the accumulated balance of the pension fund at the time of existence of the participant.

*Assistant Professor, Dept. of Commerce, Bankura Sammilani College, Bankura, West Bengal, India



BRIEF HISTORY OF NPS

First initiative towards pension reform was taken in the year 1997 in the Minister level conference at Goa. A High Level Expert Group (HLEG) and the Old Age Social and Income Security (OASIS) project commissioned by the Government were the two milestones on the road of the pension reform. The object of the Government was to design a scheme where no additional infrastructure is required to be created by the Government and which is capable of serving other groups employees of like State Government, employees of the lower income group of the unorganised sector, self employed people apart from the employees of the central government employees. On its report in 2001, HELG suggest to introduce a new hybrid system that combines both defined benefit and defined contribution system where employer and employee are required to contribute an amount to the pension fund but the pension will be guaranteed. It has been recommended in the Project OASIS report in two phase in the year 2000 and 2001 that Individual Retirement Account (IRA) should be opened for each individual and it should be operated from anywhere in India. On the basis of these recommendations and also from the experts, prospective participants from the various corners of the society, Central Government passed an Ordinance to set a Pension Fund Regulatory and Development Authority (PFRDA) in October, 2003. PFRDA is a prudential regulator of the new pension system for establishing, developing and regulating pension fund set up for the purpose of providing pension to the participants. Finally, individual account based new pension system came into light w.e.f. 01.01.2004 for the new entrants in the services of the Central Government except Armed Forces. 22 States and Union territories have already notified introduction of NPS for their new employees; of these 6 states have already signed agreements with the intermediaries for the implementation of NPS. With the passage of time, now NPS is available to every Indian citizen of the age group 18-55 years from 1st May, 2009.

MODE OF OPERATION

NPS has a four-fold architecture, viz, Point of Presence (POP), Pension Fund Managers (PFM), Central Record Keeping Agency (CRA) and Annuity providers. Point of presence is the service providers like bank, post offices where accounts are opened and contributions are deposited. POP transmitted the information to the CRA. At present, 23 pops with more than 300 branches are functioning all over the India. CRA is responsible to keep data of the subscribers and National Securities Depository Limited (NSDL) is acting as CRA for NPS. Pension Fund Managers are responsible to prepare different portfolios as per the direction of the subscribers and they would purchase and sell investment on behalf of them. The primary objective of the PFMs is to optimize the return on the investments managed by them. Three pension fund managers for Tier I and six pension fund managers for Tier II have been appointed by the PFRDA so far. IRDA approved insurance companies will perform the act of annuity providers to provide pension at the retirement on the basis of the fund value of the subscribers.

PROS AND CONS OF NPS

The reform in the pension system and the introduction of defined contribution Individual retirement account system will have the following advantages;

- Liability Government on account of paying pension will be reduced as the defined benefit is turned into defined contribution where the Government's liability is restricted only to its periodic contribution during the tenure of service of the employees.



- NFS is based on defined contributions and defined contributions are always fully funded based on the assets available.
- Funding provides an opportunity to invest in financial markets where the rate of return is likely to be higher than the implicit rate of return in Pay-as-you-go system.
- Investments may be diverted as per the intention of subscribers and also it can be changed from time to time.
- A part from employee of the Central and State Governments, a self-employed person or an employee of an unorganised sector or a general public can take the advantage of new pension scheme.
- The development of pension sector will create a symbiotic relationship with insurance sector. Pension fund managers may invest fund assets into the private insurance companies.

Despite of several advantages of new pension scheme over existing pension system, following drawbacks should be noted:

- Subscriber has to bear all investment risks of the as he selected. If there is major downfall in the market, the entire pension assets will be come under risk. A subscriber retiring at that time will be affected seriously.
- New pension scheme will not give any assurance of guaranteed return where the amount invested in Bank fixed deposit
- In existing system, administrations costs are borne by employers but in new pension scheme administration (management) costs will be shifted to employees. Several studies have shown that administration costs may look deceptively low but in long run it may reduce the benefits 20% to 30%.
- In India, most of employees and other subscribers have little knowledge about the capital market and it will be difficult to select appropriate portfolio for them.

Table 1: Comparison Of Existing Scheme With Nps

New pension system	Existing pension system
1. There is no guarantee of fixed amount of pension. Employer is responsible to contribute monthly contribution on account of each employer formed for the retirement purpose. 2. NFS is a defined contribution system of pension. 3. Pension will be determined on the basis of the pension wealth at the time of retirement/ existence from the scheme. 4. Government and the employer (if introduced NPS for their employee) will pay 10% of Basic salary and D.A. and employee will also contribute the same into the fund managed by PFM as selected by the employee.	1. Employees are assured to receive fixed amount of pension after rendering eligible period of service. 2. It is a defined benefit system of pension. 3. Pension will be fixed on the basis of the last salary drawn and the service length of the employee subject to minimum years of service. 4. For government employees, employer or employee does not make any contribution into any fund. Pension is provided from the Consolidated Fund of India.



New pension system	Existing pension system
<p>5. Under NPS, apart from the employees of Government and private sector, every Indian citizen within the age group of 18-55 years is eligible to participate.</p> <p>6. Every participant is required to open an Individual Retirement Account (IRA) where the transactions in respect of the pension fund take place.</p> <p>7. The participant has the right to choose Pension Fund Manager (PFM) and invest the contribution to any scheme available to the participant and also may change the scheme as well as PFM at any time.</p> <p>8. As NPS is a funded contribution system, participant will have to bear investment risk.</p> <p>9. Under NPS, there is no such provision of minimum years of service.</p>	<p>For private concern, employer pays 12% of basic salary and D.A. of which 8.33% and government pays 1.16% to pension fund to the workers who are covered under EPS.</p> <p>5. Employees of Central, State Govt., Local bodies, Statutory Corporation, Government undertakings and the employees of Organised sector are covered under the old pension system.</p> <p>6. There is no provision of such Individual Retirement Account (IRA).</p> <p>7. EPS Board decides the investment strategy and each member has no option but to follow this strategy.</p> <p>8. As pension is guaranteed, employee does not bear any investment risk. However, he may face the risk of delay in payment.</p> <p>9. Employee will have to render minimum years of service, as per the Service Rules to get pension.</p>

INVESTMENT OPTIONS

Following options are available to a participant:

- i) Growth option: This option is comparatively risky and contributions are invested equity-oriented fund (E class of assets).
- ii) Moderate fund: This option is low risked and includes corporate debt and security-based fund (C class of assets).
- iii) Cautious fund: This fund consists of risk-free Government security-based fund (G class of assets).

Apart from the above options, auto choice option is also available if the subscriber fails to select any one of the three options. As per the 'Auto Choice Option', 50% of the contribution of a subscriber in the age of upto 35 years will be invested in E class of assets, 30% in C class of assets and the balance 20% in G class of assets. From the age of 36 years, annual investment in E and C class of assets will decrease in the proportion of 2:1 and G class of assets will be increase by 3% upto the age of 55.

PRS has estimated the potential annual pension under the following alternatives on the assumption that participants invest Rs. 1000 p.m. in the Individual Retirement Account (IRA) for 35 years. It is also



assumed that the entire pension wealth will be converted to an annuity and the annuity rates at that time will be the same as currently available. PRS cautions that the actual annuity could be lower if the average life expectancy increases over the next 35 years, leading to lower annuity rates.

Table 2: Estimated Pension Per Rs 1000 Invested Per Month In An Ira For 35 Years

Alternatives	A	B	C	D
Real rate of return on pension wealth	1.5%	2%	3%	4%
Inflation adjusted pension wealth	551540	606413	737282	902862
Pension p.a. for the participant	47212	51909	63111	77285
Pension p.a. for the self and family	42855	47118	57287	70152

[Source: PRS estimates, India Together, Jan, 05,2007]

Notes: (a) The real rate of return has been calculated after adjustment of inflation at a constant rate throughout the period, (b) Although participant has the right to commute pension wealth upto 40%, it is assumed that entire pension wealth at the time of retirement (age 60 years) is invested in an annuity, (c) Life annuity currently offered by LIC is 8560 per lakh for self and Rs 7770 for self and spouse (in which spouse will get 50% of the amount as annuity after death of self), (d) Annual pension is not inflation adjusted.

CONCLUSION

Pension provides the financial support at old age, even only source of income in most of the cases, to the retired personnel. Unlike the old pension system, if pension is not guaranteed or fixed at a minimum level at the time of retirement then it will be very difficult for the employee or self-employed participant in the New Pension System to maintain their cost of living. On the other hand, increasing financial burden on account of paying pension, rapid growth of old age retired person and hike of salary create a tremendous pressure on the Government to implement the contribution based pension system. Although the returns on the pension funds administered by the pension fund managers have been high (average return of 13% upto 30.09.2009 is registered by the three PFM) for the shorter period, this trend is not likely to maintain in long run. Success of pension funds depends mainly on portfolio performance because risk is transferred to the participants. Therefore, participant's knowledge about the risk involved in his/her portfolio and the efficient administration of the pension fund managers are very important. After considering the present scenario, we cannot avoid new pension system but Government should play a dual role as a financial guarantor as well as a regulator of the system. If a participant will not get minimum guaranteed monthly pension (that will be fixed by the PFRDA from time to time), Government should contribute the deficit amount to get minimum pension. It is also necessary to supervise the activities of the pension fund managers by setting maximum percentage of different types of instrument and review the performance of the pension funds periodically.



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WORKPLACE OBSTACLES IN ENFORCEMENT OF EQUAL EMPLOYMENT OPPORTUNITY

Kushal De*

Abstract: This paper is based on an original study carried on by the author for his doctoral dissertation. Today, the social rigidity towards females has been reduced to a considerable extent which becomes evident by looking at the corporate houses where females are working at every level of the hierarchy. It is universally accepted that a satisfied and well coordinated human resource provides competitive advantage to the organisation at the micro level and to the whole economy at the macro level but to attain this objective the workers in-turn need equal opportunity at their workplaces. In other words, there should be no discrimination among workers on the basis of their gender and they should be allowed to prosper or go ahead in their corporate life according to their ability or capacity. This paper focuses on the hindrances in enforcement of equal employment opportunity at the workplace analysed from a representative sample drawn from 50 corporate houses in and around Kolkata. The empirical survey reveals that the males outnumber females in almost all the institutions surveyed. It is also observed that female concentration is mostly at the entry level or where direct client interaction is required. Only a few females are able to establish themselves at the managerial level and at the decision making bodies. The primary cause of this gender discrimination can be attributed to the fact that the working women from nuclear families have to fulfil their domestic as well as professional responsibilities efficiently and this dual burden hampers their professional life considerably. Moreover, it is observed that many institutions lack creches, do not have provisions for flexible working hours or change of night-shifts in case of emergencies, arrangement for transportation in case of late night shift or any special provision for females. Many institutions do not provide paternity leave and have an insufficient duration of maternity leave which again hamper the career of the females. Absence of organised labour unions in most organisations compels the individual employee to feel powerless or complacent to place their demands before the management and many of their justified demands on pay, leave, appraisal or even gender abuse or sexual harassment go unrecorded or unaddressed. These adverse circumstances have a negative impact on the career or growth prospect of female employees who have to bear many difficulties in the absence of considerate institutional support. The study, though subjective, tries to project the ground realities on the issue of male dominance over females at the workplace based on empirical evidences. By having a better understanding of the factors contributing to the phenomenon, decision makers will be better able to structure the policies on provisions of equal opportunity in the formal employment sector.

Liberalization, privatization and globalization has transformed the Indian economy in the last two decades and substantially influenced the employment sector. In this era of competition, the key factors for the survival of an enterprise are efficiency, cost reduction and cost control which in turn, require a dedicated and well coordinated workforce.

Today, the employment sector recruits people from all classes of the society and at all levels of the organization. The recruited personnel in any organization include people from all religion, race, colour, nationality and sex. Every employee wants to have a career, have a respectable and luxurious corporate life and climb up the corporate ladder. A satisfied and well coordinated human resource acts as a backbone to the organization in the micro level and to the whole economy at the macro level.

Performance is directly co-related with morale which requires a healthy job environment characterized by job enrichment, career planning, proper job evaluation, performance appraisal, adequate training,

*Assistant Professor, Dhruba Chand Halder College, South 24 Parganas, West Bengal, India



development program and above all, non-discrimination at workplace or providing equal opportunity at workplace. The term equal opportunity means that no employee should be discriminated from others on the basis of religion, race, colour, nationality and sex or in other words, features acquired by birth should not be limiting factors at the workplace.

Unfortunately, discrimination is present in all forms at every level of the society, but for the purpose of this study 'gender discrimination at the workplace' is only considered. It is worthy to note that discrimination is done not only at workplace but the process starts long before an employee is absorbed in the organization. The process of gender discrimination starts even before the birth of a child (female foeticide) and is carried on in every stage of life - be it basic education, working at home, child rearing strategies, seeking higher education, gaining economic independence or applying for jobs.

The age old tradition of male dominance in the formal employment sector has been broken down and the modern day employer recruits employees from both genders. There has been an enormous growth of the service sector which requires soft skills and gives wider scope to the females. The opportunities in the service sectors have become the primary reason for increasing the employability of large section of educated women. In this backdrop, the present paper makes an analysis of the hindrances in the path of enforcement of gender equality at the workplace.

A CONCEPTUAL DISCUSSION

Equality of opportunity in a certain competition C exists only if the possession of all the factors (F1, F2, F3, F4, ..., etc.) which affects success at C, and the possession of which is open to human manipulation, are so manipulated as to ensure that all competitors in C possesses those factors to an equal extent (Lloyd Thomas, 2001). Opportunity is something less than a guarantee; it is something more than mere possibility. Thus, two persons are said to be equal if they acquire the same level of skill, the same quality of education or other such other qualities which are required for success in a given situation to an equal extent.

Equality of opportunity according to Krisberg (1979) refers to the likelihood of persons at one level moving to another. Usually it means the probability of individuals of each rank having the same chance as individuals in other ranks to enter a higher or lower stratum. Equality of opportunity demands that some office or benefit where equal access to procedure is not available to all should be allocated, with stipulations, with the fairness of the procedure in view of its purposes.

The Indian Constitution guarantees Gender Equality in its Preamble as well as in Articles 14, 15 and 16. It also empowers the state to adopt measures of affirmative discrimination in favour of women. The Indian Constitution also advocates for a Uniform Civil Code besides prescribing for even distribution of resources and equal payment for equal work for both men and women. Many laws have been enacted in India to ensure equal employment opportunity at the workplace.

It is true that at the time of birth, both male and female are biologically different. The natural difference between male and female is primarily that women can menstruate, conceive and breast feed but all these do not prove that female is weaker sex and male is stronger one (Kumar, 1998). Definitely over the years as male and female grow in the society, their accessibility to different resources, tangible and intangible changes. The social norms and practices get divided and the 'male' and 'female' gets translated into man and woman which is a social construct. The differences among men and women are thus caused by deliberate actions of various agents enjoying authority in the society.



Indian society in general reflects 'Patriarchy' which literally means 'the rule of the father'. There is a material basis for Patriarchy and this according to Bhasin (1993) is derived from the male breadwinner concept and the fact that women are economically dependent on their men. This age old control and exploitation of women's labour power results in men's benefit from Patriarchy. According to Walby (1994), the women are liberated from home but now they face the whole society in which they are to be exploited.

Ross (1959) made an extensive study on the reasons that compels the middle class women to break their traditional gender role. In the conclusion Ross observes '.. indeed the main reason why so many higher middle class women work without reproach is because everyone understands the economic problems of the middle class and the wife's income is essential to the family's standard of living.' Kapur (1970) also finds economic reason to be the prime force for drawing the highest percentage of women in labour force. In another similar study carried out by Vasantkumar (1964), it is observed that along with economic factors, desire for self expression and independence are the reasons to be counted for a woman taking up employment.

The change in the gender sex role of the working women caused a great deal of tension and problems for them. Wives and mothers themselves normally embrace their self-concepts as household workers and then they pass these on to their children through the differential sex role-typing of boys and girls within the family. This sex typing , unless countered by other social forces, then facilitates the submission of the next generation of women to their inferior status in the wage labour system and lends its alternative namely child rearing and domesticity which is an aura of inevitability, if not desirability (Arnot, 2002). Lambert (1988) examined the combined effects of job and household characteristics on female workers. The results suggest that working women have a difficult time to master parenting responsibility in a way that promotes their personal well-being. This study also supports the idea that effects of work and home spill over from one to the other. In most cases, the husbands accept wife's employment as long as it does not hamper in any way their 'sex role oriented division of labour'. The dual burden exists for all classes of women although in different degree and nature.

Bowman (1954) feels that the working women are increasingly burdened with varied responsibilities plus complex and sometimes perplexing problems of setting appropriate goals of fulfilling their own personalities as women. Because of family responsibilities, women have traditionally been unable or unwilling to invest large amounts of time in a specific vocational preparation. The employers are usually not willing to invest in training for a woman who is likely to leave the labour force or move with her husband. Due to this reason many women are confined to occupations that can accommodate this flexibility and thus, make it difficult for women to participate in occupations that require total commitment. This view is supported by Coser and Rokoff (1971), who have concluded that women are found to be employed in such jobs which require minimum qualifications and training, and this makes replacement of positions easier for the employer. There is a lack of support facilities for working married women in the city observes Chakraborty (1978) and a distinct balance between managing job and home has not been worked out yet.

Strong (1959) said that of all human relations influencing a child's development, the personality of the mother is the most important. This view is echoed by Neerja and Sharma (1988) who opines that the mother's role is most important in the child's development. Apart from physical health factors, the mother offers a range of socio-emotional and cognitive experience to her child and many studies have shown the



critical value of this mother-child bond. Motherhood is thus believed to be a professional full time job that requires the mother to be at home with her children, responsible for reproduction of class culture by her domestic pedagogic work and capable of responding to the demands made upon her by the schools. (Arnot, 2002)

Despite the advances made by women, the term leadership is not normally associated with them (Sinclair 1998). Leadership is significantly correlated with masculinity requiring women who wish to fill that social role to adopt a masculine behaviour pattern to be chosen as leaders and to be successful in the job (Kolb, 1999). Explanations for paucity of women in leadership positions according to Saunders (1996) include the prescriptive nature of stereotypes ; many women's lack of ambition or fear of assault on their 'authenticity'; women's preference for support, rather than line management roles because of the nature of the work ; the difficulties of accommodating work and the family; the male managerial culture; woman's lack of mentors and networks; and their difficulty in adjusting to, and operating within certain organizational cultures.

DATA AND METHODOLOGY

For the purpose of the study, the employment sector is divided into two halves namely Public Sector and Private Sector. A total of 50 corporate houses were selected which included 16 companies from the public sector and 36 from the private sector. For the convenience of the study and for inclusion of different types of employers (employment), the sectors were further classified into Information Technology, Consumer Products, Manufacturing House, Factory, Bank, Telecommunication, Education, Finance, Healthcare Services, Hotel and Other Allied Services. Five institutions from each sector were selected on the basis of their size (market capitalization) and availability (location of office in or around Kolkata with HR Department and willingness to give information or time). Each subdivision had companies from the private sector as well as those from the public sector.

The research instrument (questionnaire) was prepared keeping the research objectives in mind. Close ended questions with multiple options were presented to the respondents and they were asked to choose the best alternative among those provided. The questionnaires were filled up by the researcher on the basis of the responses obtained from the respondents viz. the HR/ Personnel Officer/ CEO and ten employees from each institution selected randomly. Thus, the study consists of 50 responses from the HR managers relating to corporate policies and 500 responses from the employees (250 males and 250 females) randomly selected from these companies using non-probabilistic (judgmental) sampling technique. The survey was conducted from January 2009 to May 2010.

After collection of data, the information was tabulated (Microsoft Excel), summarised, analysed and presented. Meaningful inferences are drawn on the basis of this data.

FINDINGS FROM THE SURVEY

Observation 1: Composition of the governing body: 36 companies provided information regarding their governing body/ board of directors. It is observed that 9 institutions do not have any female representation in their governing body. None of the institutions had more female representatives in the governing body as compared to males. Moreover, on enquiry it was found that among the female representatives who made



it to the governing body some got a chance by virtue of their birth/family shareholding or marriage which was done to prevent the balance of decision making power to shift away from the clutches of the family.

Observation 2: Composition of the managerial level: Out of the 50 institutions surveyed, only one private school had more females at the managerial position. It is found that 5 institutions (10% of total sample) had no female manager and another 6 institutions had less than 10% female managers. It is worth mentioning that only in 18 institutions, 50% or more of the total male representation as managers could be achieved by females.

Observation 3: Composition of the workforce (employees): Males outnumber females in every institution surveyed except in 2 private schools and 1 private sector hospital. The worst male female ratio is found in the manufacturing sector. In contrast to the manufacturing sector, the Schools, Information Technology Sector and the Hospitals present a more favourable picture. It can also be seen that the private sector presents a better picture as compared to the public sector.

Observation 4: Resignation from the institutions: It is found that in 9 institutions (out of 30 providing this information) more females have put down their papers as compared to males. This shows more unhappiness among the females regarding their present job. Although the females are in minority in the institutions surveyed, they are seen in matching numbers on the issue of resignation with their male counterparts.

Observation 5: Employer's responses on provisions of conveyance provided to employees in case of overtime/ late night shift: It is observed that only 11 institutions provide transportation facilities in case of overtime or late night shifts. Many institutions do not even bother to provide an additional amount of money to their employees to enable them to avail better means of transportation. It is further noted that many employees come to work in the city from the suburbs where very little conveyance is available at night but concern on this issue is missing in 39 institutions visited during the course of this study.

Observation 6: Employer's responses on the duration of maternity and paternity leave provided to their employees: Parenthood is an important consideration in the life of any individual and many decisions of life, including one's career, are taken after reviewing this role. The modern urbanised lifestyle and the breaking up the joint family system virtually put the entire burden of child-birth on the parents.

The discrimination against the women are exemplified through the provisions of maternity leave where only 16% of the organizations surveyed offer more than 90 days of paid leave while 84% of the organizations offers 90 days of paid leave. The short duration of maternity leave in most institutions compel the females to either compromise with the situation or avail other unscheduled leave, which in-turn harms her future career prospects. Only 5 companies had provision for paternity leave ranging between 5 to 15 days. This becomes a practical problem for the males in most institutions. This compels the males to either 'manage' a few days of leave or transfer the responsibility of child-birth and initial care on his wife.

Observation 7: Employer's responses on provisions of baby care facility/creches at the office: It is observed that only 1 public sector institution has the provision for baby care (creche) facility at the office. Absence of creche facilities at the workplace is a serious impediment in the working environment for women and compels the mothers to make personal arrangement for their children outside the workplace which is both expensive and unsafe (as narrated by the employees).

Observation 8: Employer's responses on provisions of flexible working hours in their institutions: Flexible working hours are more suitable to women but only 1 institution from the public sector and 8 institutions



from the private sector offer such a facility. All other companies except these 9 companies have fixed work schedule which the employees are bound to follow irrespective of their personal opinion.

Observation 9: Employer's responses on provisions for an unwilling female candidate to work at daytime instead of night-shift: The practical and social situation compels most of the women not to prefer night shift but it is observed that a female employee has no other alternative but to work in night shift as 86% of the respondent employers refuse to change the night duty of an unwilling female, thereby, reducing the employability of female workers.

Observation 10: Employer's responses on the authority responsible for placing the employee's demands for leave, payment, resentment etc. before the management: An organized labour union is deemed to be the best solution for problem or conflict resolution but in finding a solution to job related problems the role of the union is found to be extremely limited. It is observed that organized representation of grievances is done in 9 public sector companies and 5 private sector companies. Absence of labour unions in 6 companies from the public sector and 27 from the private sector compel the employees to present their resentments and problems directly before the management all by themselves.

Observation 11: Employer's responses on presence of gender abuses complaint cell of grievance cell in their institutions to address related issues: It is seen that 12 institutions from the private sector and 5 institutions from the public sector do not have any gender abuse complaint cell. Non-existence of complaint cell in 34% of the organizations surveyed clearly shows the lack of seriousness of the administration on this issue.

Observation 12: Employer's responses on provisions of transfer of a female to her husband's hometown to facilitate her domestic life: It is observed that only 28% of the employers are in favour of transferring a female to or nearby her husband's hometown, if the transfer was feasible, to facilitate her domestic life. This consideration is highly beneficial to a female employee as often it is found that females have to relocate to another city or town due to marriage or due to a transfer of her husband. 60% of the employers surveyed are however not considerate on this issue.

Observation 13: Employee's responses on the performer of household chores at their homes: The male members very rarely perform the routine domestic responsibilities and it is observed that in 92% of the families surveyed the routine household chores like cooking and washing clothes are conducted by the female members of the family. As most women surveyed live in nuclear families, it is evident that they are responsible for their domestic duties. Working in the same routine like a man at the workplace does not absolve the females from their domestic responsibilities. They are forced to combine their work with their family obligations and are expected to carry out both the responsibilities efficiently.

Observation 14: Employee's responses on the role of mother on childcare at the early age: 61% of the sample feels that the mother should look after the needs of the young child and provide him with basic education. It can thus be concluded that the mother is considered to be the most important variable for the all-round development of the child and she is expected to provide the child with the basic requirements for his cognitive and socio-emotional development. This expectation from the society (sample surveyed) significantly restrict the role of females as employees and becomes a major obstacle in their career advancement.



INTERPRETATION OF THE RESULTS

The study tries to assess the ground realities on the actual state of equal opportunity prevailing at the workplace in Kolkata. Looking at the representation of women either in the governing body of the organizations or at managerial positions, it is found that effective representation of women is negligibly small to influence corporate decision-making in any appreciable way. Even the decisions on many feminine issues are taken by the decision-making bodies which are dominated by males who can easily influence any decision due to their majority status.

The number of males working in these organizations outnumbers the females in all but three institutions. The number of female employees in the private sector is slightly more in comparison to the public sector. However, most of the female employees in the private sector are either in informal employment or working at the entry level. On the whole, there is a huge gender disparity in these organizations. Premature retirement among females is also high due to family responsibilities and other personal obligations. Many females have to resign if there is a transfer of location of their husband's job. The data from institutions reveal that discontentment on their present job among the females is more as compared to the males. Flexible working hours are not provided in most of the institutions surveyed. This becomes a huge problem in the lives of most of the working couples coming from nuclear families. Provisions of flexible working hours allow the couples to adjust their personal work schedule and household responsibilities with their jobs but in its absence the female usually has to bear more problems.

Most institutions would not allow an unwilling female candidate to choose a day shift instead of night duty. The females usually prefer to avoid night duty due to social reasons. Most institutions are however reluctant to change the night shift and this unwillingness from the institutions usually reduce the employability of females.

Collective bargaining and arbitration are thought to be the best procedure of fulfilling the justified demands of the employees. The individual employee is usually helpless or incapable to challenge the mighty management. As a result labour unions are very effective in this situation in bringing justice to the employees. Unfortunately, it is observed that only 28% of the institutions surveyed have some form of labour union to fight for the employee's demands for leave, payment, resentment etc. The unions again are in some cases affiliated to political parties with political agenda. Usually specific problems related to the organization or an individual worker are not given due importance. The females face greater degree of difficulty in this situation. Many females prefer to remain silent due to social or ethical reasons or due to the fear of being branded as 'a bad woman' in the organization among the colleagues. The best solution to gender abuse might be through a complaint cell and a strong policy statement on this issue but it is observed that gender abuse complaint cell or grievance cell is absent in 34% of the institutions surveyed which clearly shows that many employers are not serious on this issue. The employees are thus left at the mercy of the managers in these organizations and sometimes have no alternative when the managers themselves are offenders.

Only about a quarter of the employers surveyed are considerate to a female employee on the issue of transfer to her husband's location, if the transfer was feasible. This consideration is highly beneficial for females who otherwise are forced to compromise with their domestic life.

Motherhood or childbirth has a huge significance in a woman's life and protection of her reproductive function should be given priority by society and especially by the institution where she is employed. Only



a few institutions surveyed offer 150 days or more of paid maternity leave. The physical constraints during pregnancy have been overlooked by the institutions surveyed. Moreover, many pregnant ladies have to travel to their offices in the overcrowded public transport system posing serious threat to her condition but concern on this issue is found missing in the offices visited during this study. It is very interesting to note that only 10% of the institutions surveyed offer paternity leave ranging from 5 to 15 days with the remaining offices offering no paternity leave at all. This issue forces many women to compromise with their career or quit work. To compound the above problem, it is observed that 98% of the institutions surveyed do not have any creche facility at the workplace. Most of the routine household chores are performed by the females in their families and this creates double pressure on them as they have to work in the same routine as a male in their institutions. This double burden seriously hampers their working life and becomes a serious impediment in their career growth and future prospects.

SUMMARY AND CONCLUSION

The study makes an attempt to find out if there is a disparate treatment meted to an individual at the workplace because of his/her gender or there is a disparate impact of any legislation or policy on any particular gender, thereby reducing their chances of progress at the workplace.

Males outnumber the females in almost all the institutions surveyed which practically show that gender equality on the basis of representation is far from being satisfactory. Effective female representation in the decision making body is also not found in the institutions surveyed. The term 'glass ceiling' was coined by the Wall Street Journal three decades ago but unfortunately, even today, the number of women in top management or leadership roles are not representative of the workforce population. This so called 'glass ceiling' is today a metaphor that describes an environment in organizations that does not create an ecosystem for women to grow into leadership roles.

Man is a social animal and is bound by his culture, tradition and norms. The logical division of work which was made for both genders through centuries are now relaxed to some extent in the modern society but the social role of both the genders has a huge influence on their employability. It is found from the survey that the respective social roles of both genders are not considered sympathetically by their employers. The working ladies are not absolved from their petty domestic obligations like cooking or washing clothes at home and to some extent, they are obliged to perform their domestic duty along with their official work. The general responsibilities of baby-care are on the mother. These responsibilities hamper her career development or further progress in corporate life.

The institutions further compound the problems faced by the females. The short duration of maternity leave and the absence of paternity leave in most of the institutions surveyed create a lot of difficulties for the working couples from nuclear families. The absence of paternity leave almost transfers the whole responsibility of child-birth and child-rearing including medical care and other related issues on the mother who is forced to deal with most of the problems by herself. The rigidity of working hours in most institutions surveyed compels the females to complete her domestic responsibilities and duties including her child's education and grooming in a short duration. The institutions are usually hesitant to change an unwilling female's night-shift which is usually unacceptable to her due to social reasons. It is found that most institutions do not arrange for conveyance facilities in case of overtime or late night duty which is very harsh to the employees, especially to the females, who have to arrange for their own transportation. Only a few



institutions are willing to transfer a female to or near her husband's hometown if the transfer was possible but most employers are not considerate on this issue which usually creates a lot of problems. These policies adopted by the institutions are thus found inconsiderate towards the domestic life of the employees and particularly work against the females.

In short, it has to be accepted that working women from nuclear families have to accept their dual responsibilities. They have to perform all the assigned duties at the workplace and at the same time fulfil their family obligations. On one hand, family obligations and expectations from the society impose restrictions on women in their personal lives and on the other, lack of creches, flexible working hours, provision for day shift in emergencies, arrangement for transportation in case of late nights etc. hamper their performance at workplace to a great extent. The result is a paradox: 'Equal Opportunity' is theoretically present and addressed to with great concern through laws, gender abuse cell, equal remuneration acts, provision for equal duties and promotions etc. but, in practical situation as observed, women are outnumbered in the institutions and have to survive a tough situation in the corporate hierarchy.

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PREDICTING FINANCIAL HEALTH OF GLAXOSMITHKLINE PHARMACEUTICALS LIMITED: AN APPLICATION OF ALTMAN'S Z SCORE MODEL

Sudipta Ghosh* and Lalit Kumar Joshi#

Abstract: Pharmaceutical industry is one of the important sectors of our economy as it accounts for a significant portion of the total industrial output of our country. Application of financial management techniques would help the pharmaceutical companies to improve their productivity and profitability, thereby enabling them to survive and sustain in the stiff globally competitive market.

In this paper, an attempt has been made to predict the financial health of GlaxoSmithkline Pharmaceuticals Limited during 2005-06 to 2009-10 by applying Edward Altman's 'Z'- Score. The empirical findings of the study reveal that the selected company on the average has good financial health ($Z > 13.12$) during the period under study.

In spite of having good financial condition, the following measures may be adopted by the selected company:

- Excess working capital should be avoided in order to have better impact on profitability.
- Necessary steps should be taken to fully utilize the available capacity.
- Fixed assets to be purchased only when the company is able to utilize its full capacity.
- The capital structure is to be changed in such a way so as to have a standard debt-equity ratio.
- Managerial competence should be enhanced.

Financial appraisal is a method used in the viability of a proposed project assessing the value of net cash flow that result from its implementation. Financial appraisal views investment decision from the perspective of the organization undertaking the investment. Therefore, it measures only the direct effects on the cash flow of the organization of an investment decision.

A financial analysis of a project is undertaken to assess whether it will be commercially profitable for the enterprise implementing it. A private fund will undertake a financial analysis of a potential investment in order to determine its impact on the firm's balance sheet.

A financial analysis must be undertaken if it is necessary to determine the financial profitability of a project to the project implementer. Normally it will be only worthwhile carrying out a financial analysis if the output of the project can be sold in the market or otherwise valued in the market prices. Commercially oriented govt. authorities better selling output, such as railway, electricity, telecommunications or freeway authority, while usually undertake a financial as well as an economic analysis of any new project they are considering. They assess the projects potential impact on their budgetary as well as its impact on the country's welfare.

* Assistant Professor, Prabhat Kumar College, Contai, Purba Medinipur, West Bengal, India.

Lecturer, Department of Commerce, The Bhawanipur Education Society College, Kolkata, West Bengal, India.



COMPANY PROFILE

Established in the year 1924 in India, GlaxoSmithKline Pharmaceuticals Ltd. (GSK Rx India) is one of the oldest pharmaceuticals company and employs over 4000 people. GlaxoSmithKline Pharmaceuticals Ltd is one of the world's leading research-based pharmaceutical and healthcare companies. The company's product portfolio includes prescription medicines and vaccines. GSK mission is to improve the quality of life by enabling people to do more, feel better and live longer.

With opportunities in India opening up, GSK India is aligning itself with the parent company in areas such as clinical trials, clinical data management, global pack management, sourcing raw material and support for business processes including analytics.

GSK's best-in-class field force, backed by a nation-wide network of stockists, ensures that the Company's products are readily available across the nation. GSK has two manufacturing units in India, located at Nashik and Thane as well as a clinical development centre in Bangalore. The state of art plant at Nashik makes formulations. It shows high degree of social responsibility towards the community in which it operates. GSK undertake Corporate Social Responsibility program that works towards fulfilling basic healthcare, education and other developmental needs of the underserved population. With this dedication and commitment, GSK believe that the world will be better, healthier and happier.

GSK is committed to developing new and effective healthcare solutions. The values on which the group was founded have always inspired growth and will continue to do so in times to come.

[Source: IMS SSA June MAT 2012]

LITERATURE REVIEW

Few empirical studies that have been carried out in this area are briefly stated below:

Altman, Edward, (1968), developed a technique where only one index, named 'Z' score was computed by combining major financial ratios. The technique known as Multiple Discriminant Analysis (MAD) is usually used for predicting qualitative aspects like sex, race or solvency position. He applied this technique to 33 pairs of bankrupt and non-bankrupt manufacturing firms belonging to the same industry. In this respect, 22 accounting and non-accounting variables in various combinations were considered for failure prediction. For his samples, firms scoring more than 2.99, Z score are considered non-failed firms and those scoring less than 1.81, Z score are considered failed ones. Firms securing in between 2.99 and 1.81, Z scores require further analysis for identifying their solvency position.

Kannadhasan, M., (2007), stated that in order to survive and continue to be in business, it is essential that an organization successfully manages its finance which requires more attention and care. Ineffective management is one of the important factors causing industrial sickness. So, it is important to monitor the financial position and health of company through its financial statements, which throws light on the operational efficiency and financial position of the company. The researcher ascertained the financial health of Wendt (India) Limited company and consistency of financial performance for five financial years 2001-02 to 2004-05. The findings of the study indicated that the company is maintaining good financial performance throughout the study period.

Reddy, D. Maheshwara and Reddy, C.R., (2011), attempted to predict the financial health of two selected sample pharmacy companies namely Aurobindo Datong Bio-Pharmacy Ltd. and RANBAXY



Laboratories Ltd. for a period of five years 2005-06 to 2009-10 using modified Airman's model. The research findings of the study are that the overall financial health of both Aurobindo Pharmacy Ltd. and Ranbaxy Laboratories Ltd. companies were good during the period under study.

Raiyani, J.R. and Bhatasna, R. B., (2011), attempted to assess the financial health of the sample textile companies in terms of retained earning to total assets position, networking capital position, equity-debt position, return on total assets position and net sales turnover position during the period 2002-03 to 2008-09. The sample companies selected in this respect are Siyaram Silk Mills Ltd. (SSML), Shri Dinesh Mills Ltd. (SDML), Welspun India Ltd. (WIL), S. Kumars Nationwide Ltd. (SKNL). For the purpose of analysis, the researcher has used Altman's 'Z' score to predict, analyze and compare the financial health of the sample companies.

Other Studies: Similar other studies have been carried out by Jonah, Aiyabei (2002), Ben Me Clure (2004), Mansur, A. Mulla (2002), Krishna, Chaitanya (2005) and V. Dheenadhyalan (2008).

In the context of these few studies, the present study may be considered as another attempt to contribute to the existing literature.

Z-SCORE MODEL: A SYNOPTIC OVERVIEW

The Z-score formula for predicting bankruptcy was published in 1968 by Edward I. Altman. The formula may be used to predict the probability that a firm will go into bankruptcy within 2 years. "Z" scores helps to predict corporate defaults an easy to calculate control measure for the financial distress status in the academic studies. The Z-Score uses multiple corporate incomes and balance sheet values to measures the health of a company.

The Z-score is a linear combination of four or five common business ratio, weighted by coefficients. The coefficients were estimated by identifying a set of firms which had declared bankruptcy and then collecting a matched sample of firms which had survived, with matching by industry on approximate size (assets).

OBJECTIVE OF THE STUDY

The main objective of the study is to apprise the financial help of GlaxoSmithKline Pharmaceuticals Ltd. by applying "Z" score model.

RESEARCH METHODOLOGY

In this section, the data base, tools and techniques applied in the study are discussed.

Sample Design: To carry out the present study, GlaxoSmithKline Pharmaceuticals Ltd., one of the leading companies in the Indian Pharmaceutical Industry has been selected.

Data Source: The necessary data has been collected from the published annual reports of the selected company.

Study Period: The present study has been carried out for a period of 5 years i.e., from 2005-2006 to 2009-2010.

Z-Score Analysis (Altman Z-Score): Edward Altman (1986) combined a number of accounting ratios (liquidity, leverage, activity, and profitability) to form an index of the probability which is an effective indicator of corporate performance in predicting bankruptcy.



The different accounting ratios as stated above are combined into a single measure Z- score analysis with the help of multiple discriminant analysis (MDA). The formula that has been established by Altaian is as follows:

$$Z = 1.2 * x_1 + 1.4 * x_2 + 3.3 * x_3 + 0.6 * x_4 + 0.99 * x_5$$

Where, "Z" = overall index

x_1, x_2, x_3, x_4 and x_5 = variables (i.e. ratios)

Accounting Ratios

The accounting ratios that are used as variables to combine them into a single measure (index) are stated as follows:

x_1 = Working Capital to Total Assets

(It is the measure of the net liquid assets of a concern to the total capitalization).

x_2 = Net profit to Net Sales

(It indicates the efficiency of the management in manufacturing, sales, administrative and other activities).

x_3 = Earnings before depreciation, interest, and tax (EBDIT) to Total Assets.

(This ratio indicates the productivity of the assets employed in an enterprise).

x_4 = Equity to Debt (i.e. reciprocal of Debt Equity Ratio)

(This ratio indicates how much assets of an enterprise can decline in value before liabilities exceed the assets and the concern becomes insolvent).

x_5 = Sales to total assets.

(It indicates the sales generating capacity of the assets of an enterprise).

Measurement of Financial Health

Altaian established the following guidelines to be used to classify the firms as either financially good or likely to become sick or confirmed to be sick:

Situation	Z- Scores	Zones
1	$Z > 2.66$	Financially Good
2	$1.86 > Z < 2.66$	Likely to become Sick
3	$Z > 1.86$	Confirmed to be Sick

Other Measures

Apart from the above, simple statistical measures like mean, median, mode, etc. has been considered.

EMPIRICAL FINDINGS AND ANALYSIS

Financial Health: Z-Score Analysis

The financial health of the sample company (i.e. GlaxoSmithKline Pharmaceuticals Ltd.) has been analyzed through the technique of multiple discriminant analysis Edward Altman's Z-Score.

**Table 1: Value of x in Z-Score for Glaxo Smith Kline Pharmaceuticals Ltd.**

Year	X1	X2	X3	X4	X5
2006	0.05	0.35	0.48	15.30	1.29
2007	0.01	0.34	0.90	14.69	1.15
2008	0.43	0.35	0.45	15.00	1.07
2009	0.80	0.27	0.44	15.63	1.06
2010	0.83	0.27	0.46	16.41	1.09

Table 2: Z-Score of GlaxoSmithKline Pharmaceuticals Ltd.

Year	$1.2x_1$	$1.4x_2$	$3.3x_3$	$0.6x_4$	$0.99x_5$	Z Score
2006	0.06	0.49	1.58	9.18	1.28	12.59
2007	0.01	0.48	2.97	8.81	1.12	13.39
2008	0.52	0.49	1.49	9.00	1.06	12.56
2009	0.96	0.38	1.45	9.38	1.05	13.22
2010	1.00	0.38	1.52	9.85	1.08	13.38
Average						13.12

From Table-2, we found that the value of Z- Score's ranged between 12.56 in the year 2008 to 13.83 in the year 2010. The average of "Z" Score is observed to be 13.12. Table-2 further reveals an increasing trend (except the year 2008) during the period under study. As per standard norm, financial health of selected company (i.e. GlaxoSmithKline Pharmaceuticals Ltd.) is very good in all the years understudy.

CONCLUSION

On the basis of the findings, it can be concluded that the financial health GlaxoSmithKline Pharmaceuticals Ltd. is very good on the average as well as during the entire years under study.

Moreover, an increasing trend in "Z" score of GlaxoSmithKline Pharmaceuticals Ltd. predicts better financial health in the year to follow.

In spite of having good financial condition, the following measures may be adopted by the selected company:

- Excess working capital should be avoided in order to have better impact on profitability.
- Necessary steps should be taken to fully utilize the available capacity.
- Fixed assets to be purchased only when the company is able to utilize its full capacity.
- The capital structure is to be changed in such a way so as to have a standard debt-equity ratio.
- Managerial competence should be enhanced.



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ENCOUNTERING WORK-LIFE BALANCE BY COUNTERING STRESS: A STUDY ON EMPLOYEES WORKING IN CORPORATE SECTORS

Sweety Sadhukhan*

Abstract: The paper takes a close look on the challenges faced by the employees working in Corporate Sectors. The excessive work load, 24X7 working hours, challenging deadlines, sense of insecurity, cut throat competitions, nature of job, level of income, unpleasant environment, family circumstances and such other variables culminates to create problems for employees. In spite of having modern technologies and facilities, people are facing themselves to be stressed. Whatever the root causes are, stressed employees tend to be fatigued and prone to mistakes and injuries. Excessive stress can damage health, mood, productivity, relationship and quality of life. Employees are recognizing that now is the time for action. Employees who are stressed today can be disabled tomorrow. This paper attempts to trace out the possible ways to manage and handle stress. The paper is supposed to create awareness among the employees in corporate sectors. In short, the paper ventures to explore the causes of stress, effect of stress to employees' work, life and health and suggest possible remedial measures.

In this world of cut- throat competition, where everyone is in a rat- race, leaving no stone unturned to outpace the fellow- competitors; the ruling word is 'stress'. People are pursuing money and power; the work load getting the better of them, making them oblivious of the normal demands of personal life and need to keep a harmony between job and personal life become necessary. Psychologists are approached with umpteen cases of behavioural disorders, the root of which is indefinitely mental stress, often leading the people to severe trauma. Stress is conspicuous in all the sections- among the students who remain continually stressed with their studies, examinations and compulsive urge to outshine their parents dream, among the housewives to keep domestic affairs prim and proper, among working housewives to maintain their work-life balance, among the celebrities to keep their glory and glamour intact and most glaringly among the employees of the corporate world. 'Corporate'— the word itself signifies a place of relentless rivalry, backbreaking work, 24x7 working hours, challenging deadlines, where efficiency often goes unrewarded and a constant pressure to reach the top outcompeting the counterpart employees and need to maintain job security. All these cumulatively create anxiety, tension and worries for which exact term is 'stress'.

STRESS— WHAT IS IT?

There is no universal definition for stress. Hans Selye was one of the founding father of stress research. His view was that "stress is not necessarily something bad- it all depends on how you take it. The stress of exhilarating, creative successful work is beneficial, while that of failure, humiliation or infection is detrimental."

The most commonly accepted definition of stress (mainly attributed to Richard S Lazarus) is that stress is a condition or feeling experienced when a person perceives that "demands exceed the personal and social resources the individual is able to mobilize." In short, it's what we feel when we think we've lost control

*Assistant Professor, Department of Commerce, Kishore Bharati Bhagini Nivedita College, Behala, Kolkata 700 060



of events. Van Fleet (1988), stress is caused when a person is subjected to unusual situations, demands, extreme expectations or pressures that are difficult to handle. Strenberg (2000) opines a person's response to the presence of something in the environment that causes him to feel challenged in some way called stress. According to Oxford Dictionary (2003), stress is strain, especially worry and nervous tension.

OBJECTIVE FOR STUDY

The alarming spike in the incidence of reported stress among employees in recent years and its impact on the bottom line has made the management of stress an urgent business strategy. The primary objective of the paper is to create awareness among the employees working in corporate sectors by suggesting the possible measures to overcome.

RESEARCH METHODOLOGY

The framework of this paper will be a subjective- objective approach. The study consists only of secondary data. The secondary data is collected from books, internet, journals, newspaper and research publication.

CAUSES OF STRESS

Stress is difficult for professionals to define because it is highly subjective phenomenon that differ for each of us. We all respond to stress differently. Stress can be generated because of workplace related factors as well as personal factors.

Workplace Factors that generated stress includes challenging deadlines, excessive workload, 24×7 working hours, unproductive and time consuming meeting, nature of job, level of income, unpleasant environments, inconsistent values, sense of job insecurity, cut throat competition, etc.

Personal Factors that generated stress includes death of a partner/ family members, filling for divorce, separation from a spouse, conflict in inter-personal life, money problem, legal problem, substandard housing, etc.

According to a survey, employees rank long working hours and travel time higher in the list of factors causing stress. The survey has been conducted by technology research firm IDC India Ltd for Dataquest magazine. Among factors that caused stress at work, health issues appeared at number six, after travel time, work timing, insufficient holidays, work load and long hours. Of the employees surveyed, 32% had sleep disorders, 25% had digestive disorders and 20% had an eye-sight problem. "Health as a stress factor is indeed a concern, with a fifth of the employees citing it as a factor," said Kapil Dev Singh, country manager, IDC India Ltd in his statement in the survey release.

(Source:<http://www.livemint.com/Companies/8BbWCtIzgniXrgZsebBV6hP/Long-working-hours-travel-time-add-to-stress-of-BPO-staff.html>)

Whatever may be the reason to generate stress, but unfortunately it creates a bad impact on human mind and health resulted in loss of productivity. To live a balanced life one needs to counter stress, master over it instead of being over-ruled by threatening clutches of stress.

CONSEQUENCES OF STRESS

Modern era is known as the "era of anxiety and stress" (Coloman, 1976). Modern life is full of hassles, deadlines and demands. The human body is designed to experience stress and react to it. Stress can be



positive keeping us alert and ready to avoid danger. Stress becomes negative when a person perceives that "demands exceed the personal and social resources the individual is able to mobilize." As a result, the person becomes overworked and stressed.

There are numerous physical, psychological and behavioural consequences of stress.

Physical Consequences

There are certain physical consequences of stress, few of which may be stated as under:

- Headaches
- Weakness
- Upset stomach
- Elevated blood pressure, high pounding
- Chest pain
- Sleeping problems
- Diabetes
- Loss of sex drive
- Asthma
- Skin problems
- Nausea, dizziness
- Eating more or less, weight gaining, indigestion
- Frequent flushing and sweating
- Nervous habits (e.g. nail biting, pacing)

Psychological Consequences

There are certain Psychological Consequences of stress, few of which are stated below:

- Depression and Anxiety
- Frequent mood swings, Short temper
- Nightmares
- Memory Problems
- Poor Judgement
- Seeing only the negative side
- Constant worrying, Confusion, Frustration
- Agitation
- Sense of Loneliness
- Sense of Failure, Loss of Motivation
- Disorganization

Behavioral Consequences

There are certain Behavioral Consequences of stress, few of which are stated below:

- Excessive gambling or impulse buying
- Social withdrawal or isolation, withdrawing from responsibilities
- Procrastinating
- Skipping work
- Using drugs or alcohol
- Conflicts or less adjustment with family, team mates or supervisors
- Feeling like early retirement type situation
- Feeling burnout

Excessive stress damages health, mood, productivity, relationship and quality of life. In fact some doctors believe that 90% of all illness is stress related. In one survey in America, researchers found that to cope with stress, 40% of people smoked, 41% gambled, 35% shopped and 27% drank alcohol. (Source: American Psychological Association. "Stress in America", 7 Oct, 2008). So, one needs a proper channel to give an outlet to the pent up stress.

MANAGING STRESS

Since stress is a part and parcel of life, yet it bears a dire effect on the mental hygiene; one should find a way to curtail stress. For a successful handling of the stress, both the employers and employees are



expected to endeavour to combat stress. Counseling plays a significant role to assist individuals to make their own decisions from the several choices available to them, to enhance their personal and performance effectiveness by way of advice and guidance. One must be aware of the different available means which can aid one to successfully cope up with stress.

EMPLOYER POINT OF VIEW

Work from Home

"Employers need to look for ways of taking excess pressure off employees."

—Clare Kelliner, Professor, Cranfield School of Management

Employer attempts to reduce workplace stress by allowing employees to some times work from home. In a study, Rugus comes to the conclusion that there is one solution to reduce stress- allow flexible working hours and locations. "Allowing employees to choose when or where they work is regarded by respondents as a way of helping them balance the stress of work with family commitments and of ensuring that it is possible to recharge their loved ones and fighting professional burnout."

Employee care is a top priority

Continuously revise of HR policies, listen to associates' opinions, make policies more people-friendly, proper rewarding, proper motivation and cater to varied needs of a diverse workforce is necessary from the part of management.

Only the endeavour of the employers won't work unless the employees take a venture hand in hand to curb stress. There are many practical ways to avoid, reduce or dilute stress. They won't all work for you, but all you need to find is a few new ones you haven't already thought before.

EMPLOYEE'S POINT OF VIEW

Do's and Dont's

Do's:

- Proper time management is quiet necessary
- Prioritize tasks
- Break project in to small steps
- Delegate responsibility
- Expects ups and downs in life
- Learn to forgive
- Express your feelings instead of bottling them up
- Cultivate a friendly social climate
- Spending as much as time possible with family (arranging tours frequently, celebrating special occasions, having dinner together)
- Spending time amidst nature (seeing sun rise, taking fresh air, listening to birds singing, go for a walk)
- Sweat out tension with a good workout.
- Take advantages of off- hours for shopping, listening to music, playing with pet and games, watching television, reading books, gardening



- Say 'no' more often for unrewarded activities
- Engage yourself in some creative activities (like cooking, painting, sewing, home decoration, etc.)
- Look for a sense of humors in a situation
- Know to distinguish between 'should' and 'must'
- Be optimist in any situation
- A daily and proper healthy exercises, yoga, and meditation are required
- Following a proper diet is also required
- Unwind before bed time with some stretching and calming activity. It helps you sleep better

Don'ts:

- Never try to control uncontrollable
- Avoid smoking, drinking alcohol, using pills and drugs
- Never get so caught up in the hustle and bustle of life that you forget to take care of your own need
- Do not over- commit yourself
- Turning down invitation from people you want to avoid
- Never be pessimist in life
- Do not completely rely on your memory, leave notes for yourself on diary, mirror or in car to remind you of important dates or errands

Doing everything perfectly is not only unnecessary, it's boring. Life is a lot easier if you know to ignore a little dirt. Instead of worrying about what will happen if... try asking yourself, "so what?" even if your worst fears are realized, they often turn out not to be that bad.

There are some socially significant people who have experienced excessive stress in their life, in spite of that they have managed to challenge the stress and emerge as successful personality. They can be our ideals, preaching us to triumph over stress to lead a balanced life. A list of such high profile personnel has been highlighted:

Barak Obama (American President): To reduce stress, Obama used to spend quality time with family and often goes for an outing to pleasant islands.

J.K. Rowling (Writer of Harry Potter): According to Rowling, creative activities, music, yoga are wonderful ways to dilute stress. She laughs at her heart's content to minimize stress.

Madonna (Singer): She expresses herself loudly to counter stress.

Sanjib Goenka (Businessman): The effective ways for him to reduce stress is to spend time with family at dinner table and to give company to his wife in watching television.

(Source: Anandabazar Patrika, dated 8th December, 2012)

CONCLUSION

In this progressive world, where everyone is in a rat race, one needs to keep pace with their fellow counterparts in order to keep one's position intact. In the corporate world, the professionals have to battle shoulder to shoulder with their fellow workers, and at the back of the mind they have the constant fear of being fired from the job, and the obvious consequence is stress. There are companies and theoreticians who believe that a certain amount of stress is useful in the workplace. It keeps people on their toes. But



there is no golden rule to say how much stress is beneficial. At times like this, it is the responsibility of the organization to try and cut stress level. We need to learn to take the stress to our stride, endeavour not to burden ourselves with excessive stress or remain cowed down by burdensome work; we need to find joy and happiness in the dreary work, we need to love our work and not take it as a burdensome job; then only can we master stress instead of being mastered by it. Work-Life Balance is more than a buzzword—it's for real. Recent research has further validated the value of flexible work options with 46% of over 4000 job seekers in the UK admitting that they would choose flexible work hours as the benefit they would most look for in their next job, and 60% saying that they would view Work-Life Balance as an important factor in assessing a potential renew job. Organizations that do not introduce Work-Life Balance policies are at a distinct disadvantage. It may take time, but homework is bound to take on a new meaning soon.

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A PARADIGM SHIFT FROM SUPPLY CHAIN MANAGEMENT TO E-SUPPLY CHAIN MANAGEMENT

Siddhartha Roy* and Abhignya Banerjee**

Abstract: Supply Chain Management (SCM) is the management of interconnected business networks dealing with delivery of goods, services and information from suppliers to the consumers/ customers. An effective and efficient SCM makes the company more competitive and profitable. Due to rapid changes in the competitive environment, the organizations must integrate the internal procurement, production and sales and link them with the suppliers and customers, in order to control and improve the competitive advantages (quality, delivery, cost). In the 21st century, Information Technology has added to the competitive advantage of many corporations using it. Also with the quick development of Electronic commerce (E-SCM), SCM provides more efficient information exchange among the trading partners electronically. In fact online channel provides firms to reach global audience with minimal infrastructural cost, reduced overhead cost and giving higher level of satisfaction to the consumers. E-SCM improves both procurement and fulfilment, particularly in stock availability and on-time delivery of finished goods and services. The entire supply chain is now more transparent and market oriented. This paper overviews the paradigm shift from traditional SCM to E-SCM.

We have entered a new era in understanding the dynamics of competitive advantage and the role of resource procurement. We no longer talk about suppliers and customers, as now they are managed in isolation, each treated as independent entity. More and more we are witnessing a transformation in which suppliers and customers are inextricably linked throughout the entire sequence of events that bring raw material from its source of supply through different value adding activities to the ultimate consumers. Success is no longer measured by a single transaction. Competition nowadays is evaluated as a network of co-operating companies competing with each other along the entire supply chain. In today's dynamic business environment, enterprises have to make their presence felt globally for their survival. So to speed up the whole process they are now using the internet in SCM to reduce response times and resolution of their customer problems.

Recent technological development in information system has paved to facilitate the coordination between the links in the supply chain system and thus allowing the virtual integration of the entire supply chain. For cotemporary managers and researchers, merging these two fields (SCM and Internet) is a key area of concern. Managers has realised that Internet would enhance SCM's decision making by providing real-time information and enabling collaboration between trading partners.

CONCEPT OF SUPPLY CHAIN MANAGEMENT

SCM is the management of network of interconnected business involved in the provision of product and services packages required by the end customers in a supply chain. A supply chain is basically a network of facilities and distribution function that performs all other related function, such as procurement of raw materials, transformation of these raw materials into semi-finished or intermediate goods and finally to the

* Assistant Professor, Department of Computer Science, Shree Agrasain College, Liluah, Howrah.

** Fulltime Lecturer, Department of Commerce, Shree Agrasain College, Liluah, Howrah.



finished good. It also involves distributions of these finished goods to the final consumers. It has got a universal application, ranging from service industry to manufacturing industry, although it varies greatly.

The SCM term has been in use for almost 20 years and has been defined as the integration of activities that procures materials, transforms them into intermediates goods and final products, before delivering them to customers (Heizer and Render, 2001).

The main objective of SCM is to maximise the overall value generation, faster the delivery process, improve the quality of the product, reduced the cost of production, in order to satisfy the ultimate consumer needs.

The 4 C's SCM also known as the underlying principle of SCM are Compression (Planning/ Manufacturing/ Supply), Conformance (Forecast / Plan/ Distribution), Co-operation (Cross-functional) and Communication (Real time data). So we can say SCM is a set of approaches used to efficiently integrate suppliers, warehouse, manufacturers and distribution centres, in order to produce and distribute the product in right quantity, right location and at the right time.

BENEFITS AND DRAWBACKS OF TRADITIONAL SUPPLY CHAIN MANAGEMENT

An effective SCM helps a business to add global efficiency leading to lower cost of raw materials. An efficient system plans to bring the required raw material at lower cost at the right time to ensure that there is no excess or deficiency in the production process.

It helps to improve the relationship with the vendors so that there are opportunities to get a volume discount.

Cycle time can be defined as the time taken by the business to transform a product from raw materials to finished product, give it to the distributor to sell, make money out of it to repurchase raw material for further production i.e. to start the cycle again. If at any point time consumed is more then the production may have to stop, eventually slowing down the organisation. An efficient SCM improves the cycle time ensuring the whole process to be on time.

A SCM system helps the organization to cope up with the problems, arising from distributors and suppliers, quickly and easily instead of being surprised by it at a later time.

Inspite of many benefits SCM suffers from some severe problems which has paved the way for E-SCM to be adopted by the organizations.

The SCM in near future is far more complex where organizations have to deal with more complex issues and greater demands. It has to design as well as execute. It will have a global approach in both sourcing and marketing of products. It has to adapt to changes in respect of both supply and demand.

Here the supplier selection problem is based on invoice cost. Many decision makers use different criterion - quality, delivery, flexibility, cost and response while selecting and assessing the process. The main objective of the selection process is the need of the firm and the level of the success of the selection criterion to complete such needs.

Traditional SCM used telephone, fax, regular mails to contact their upstream (supplier) and downstream (customers) connections and face to face negotiations are avoided as they are time consuming.

Previously, Electronic Data Interchange (EDI) technological supports were used which involved heavy technological expenditures but in the internet E-SCM environment the cost of information along the supply chain are greatly reduced.



MOVING TOWARDS E-SCM

With the gradual development of Information Technology, it is now possible virtually to report any measurable data as soon as the events occur. Systems are now available for quick and systematic collection of data of the whole operation, keeping these data readily available and for reporting without delay the status of any large number of data, so as to provide effective planning and control.

Information system is applied widely now, from purchasing, storing, manufacturing, shipping to despatching the final product to different stations and input centres spread throughout the plant. At the despatch centres events are recorded as and when it occurred and the information is thus transferred to the necessary centres.

In this information age customers are more knowledgeable and demanding. If a customer is unsatisfied with the performance of the organization, then he can easily shift to an alternate organization that will provide his desired levels of services. In today's competitive environment every business organization is faced with the challenge to keep the customer happy by meeting his demands.

The internet has made shopping more easier than ever before. The organizations can not only gather information on real-time basis to make decisions about what to order or how to replenish the stores, but also to send this information via the internet to make their suppliers aware of their production to actual sales.

Much big organizations needs channel partners to participate in their supply chain programs in order to do business. The focus shifts from finding business partner rather than solely doing a limited amount of business for a short period of time. With intranet and extranet facilities various organizations used to exchange logistic and inventory information. They use their private network for common interaction between channel partners. Business organization realizes the need of integrated management, and there by using software and applications like ERP systems. Companies are now able to provide faster responses to any queries posed by supply chain partners. Organization specific web sites offers information on products and trading partners, price quotes, product specifications, and job. It is not hard to believe that the future of supply chain management is going to be entirely virtual, with complete integration of ideas, information, and desires throughout the supply chain (Narasimhan, 2001).

TECHNOLOGICAL DRIVERS IN E-SCM

Traditional supply chain has used Electronic Data Interchange (EDI). EDI allows a data to be electronically sent between different firms and different applications. The traditional architecture of EDI most typically used a Value-Added Network (VAN). The VAN provided the network and translation services necessary to EDI, converting the data from one system to another. This service was costly, and traditional EDI was cost-prohibitive for small and medium sized firms. At present the public internet is replacing the costly VAN providers. Two technologies are driving this change: Extensible Markup Language (XML) and Virtual Private networks (VPN). XML is a markup language used to design web pages. Unlike hypertext markup language, XML is able to use tags that communicate specific meaning. This feature allows for data to be displayed in a variety of formats as well as being sent in real-time across the internet. Much like the VAN translation service in the past, XML allows for intermediaries to send data to and from different applications. If public internet is being used then the main issues are to retain the confidentiality and integrity of data and keep it completely secured from intruder. Traditionally VAN is a leased secure point-to-point network and thus it is very costly. VPN uses the public internet to send data, but create a secure connection using



authentication methods combined with encryption. When used in conjunction with XML, VPNs allows data to be securely sent between different applications.

STRATEGIC ADVANTAGES OF E-SCM

There are many benefits associated with E-SCM, like the speed and ability to communicate, the decreased costs of communication and carrying inventory, customer service. Speed and ability to communicate can be seen throughout the supply chain. Firms keep track of their existing and required inventory levels. E-SCM allows the supply chain partners to communicate those levels in real-time to increase their service levels.

An example can be found by looking at Wal-Mart and Procter&Gamble. P&G is able to monitor the inventory levels of its products at Wal-Mart distribution centers. Doing so assures that a Wal-Mart store will never run out of a P&G product. At the very least, the system provides early warning signs when that product is running low (Koch, 2002). Also, P&G can now schedule their operations using Wal-Mart's inventory levels, providing more efficient operations and leaner inventory storage.

A large benefit of E-SCM is the long-term relationships that are built along the supply chain. As firms open themselves, and their information, up to each other they are forced to align their own strategies and goals. By doing so, supply chains become committed to the end consumer. This long-term relationship also moves to stabilize processes, as firms can focus on their own individual core competencies, while outsourcing their remaining needs.

An efficient E-SCM can bring down the prices of products by as high as 40% and it does so by eliminating overstocking and by reducing the average inventory levels to the required amount, and by doing so warehousing costs and transport costs are also lowered since there won't be any unnecessary trips when every stage of the supply chain is in synch with each other. This will not only give the company cost benefit but will also result in improved customer service levels, improved competitiveness and an overall gain in profitability of the business. By sharing information throughout the supply chain, a pull-based demand inventory system is created. For example, when a customer places an order, the demand is pulled throughout the supply chain. The system also creates electronic triggers in the supply chain workflow, creating more reliable and efficient operations (Anonymous, 2000).

E-SCM also improves customer relationships by assisting the ability to anticipate, track, and respond to customer demand and reactions. By being better able to serve customers, E-SCM has become an increasingly important way to retain sales.

E-SCM covers all aspects of a business, from the stage of raw materials right on to the end user. Each and every aspect of the cycle is covered by the E-SCM be it sourcing, product design, production planning, order processing, inventory management, transportation, warehousing and customer service. The E-SCM manages the flow between the different cycles and spans across the different departments and companies involved and the applications used by these departments and companies should be able to understand each other for the E-SCM to work properly.

E-SCM facilitates the removal of purchase orders, delivery confirmations, bills of material and invoices. The switch away from paper can also speed up response and improve communications with those in different time zones or who work outside normal office hours. Another significant potential benefit is a reduction in the errors associated with activities such as re-keying data and receiving orders by telephone calls and handwritten faxes.



E-SCM's main strategic advantage lies in its ability to allow real time exchange of information to take place between the company's employees and their trading partners, namely customers, distributors & manufacturers, regarding product configuration, order status, pricing & inventory availability. Such functions improve order accuracy and provide 100% order fulfilment through accurate inventory information. This real-time data enables users to make informed ordering, purchasing and inventory decisions and thereby enhances the quality and scope of customer service.

In addition to increasing productivity and reducing overall operating expenses, E-SCM maximises selling opportunities by capturing valuable customer information-buying patterns, frequency of visits, preferences, order history and then uses this information for up-selling, cross-selling and promotional opportunities. E-SCM provides the tool sets to get new business by reaching out to customers that you never could before.

A sequence of primary activities, inbound logistics, operations, outbound logistics, marketing and sales, and service, along with support activities. Supply chain management involves the integration of these business processes, and provides products, services, and information that add value for customers. The management of the supply chain is revealed in this holistic approach. The goal is to reduce uncertainties, such as demand, delivery times, quality, and competition in the supply chain. E-supply chain means using network and IT to transform the corporate core business and process through internet; it manages negotiation, sharing and cooperation of business process for employees at internal aspect and deals with transaction and cooperation with supply chain partners at external aspect.

In the following table we compare different kinds of leadership in E-SCM environment

Table 1: Comparison of different leadership using E-SCM

Attributes Leadership	Cost effective	Highly responsive	Structurally Efficient
Autocratic	YES	YES	NO
Participative	NO	YES	YES
Transformational	YES	NO	YES

ISSUES OF E-SCM

Many issues have been raised after implementing E-SCM. First, an organisation should accustom with the automated supply chain system. Before implementing the e-system, the company must use sturdy design in its methods of business and be sure that they are quite capable to handle with the information system. Suppliers, too, must be convinced that E-SCM is appropriate for them, and that the benefits will reach their organizations. Organizations that are utilizing E-SCM must be sure to communicate the advantages of using E-SCM technology to all parties involved. The benefits can be achieved through the accuracy of the data entered into and the consistent usage of the system.

For a firm who derives a competitive advantage through its supply chain strategy, sharing its processes may even lead to the loss of that advantage. For many, threats of vertical integration or disintermediation



are very real. By maintaining total control of their internal processes, a firm can decrease these outside competitive risks.

An imbalance benefit of E-SCM among the organizations is another issue to implement E-SCM in various organizations. For example large OEMs directly receive many of the benefits while smaller suppliers are given additional costs and responsibilities (Subramanian, 2004). While the OEM can decrease its inventory, the suppliers must offer additional and smaller shipments. The supplier is over-burdened with additional functions and the cost that goes along with those responsibilities. Smaller suppliers hope that their willingness to partner with the larger firms will result in locking in that customer for future relations (Subramanian, 2004).

Another drawback to E-SCM can be the over confidence on speed instead of agility. Many have found that their supply chain strategies do not work under uneven situation. As inventory levels are minimized, there is a less amount of safety stock to handle emergencies. This emergency can come in many forms, a delayed shipment, a broken down truck, a leap and bound in demand, a natural disaster. Unable to cope up with change, these supply chain systems are inaccurate and put their organization at a detrimental position. While speed of information exchange is a great help in making supply chain decisions, the inability to respond to the unexpected events is a big issue especially in industries where supply and demand change rapidly.

A long-term supply chain relationships is possible by partnering with other companies, organization must share their own internal information. They must share that information not only with their trading partners but also within their own organization. This requires the traditional functional areas to be reconstructed. By partnering in long-term relationships, products and services become transparent across their industry. If an organization has no longer control over its operations, and instead partners with others, its processes become easily imitated. Competitors can also partner with like companies, creating products and services that are much harder to differentiate on features. The end result is an industry that focuses on price differences between its products (Porter, 2001).

Finally, the organizational structure must change to one that makes it easier to share information internally among functions, departments, and processes (Grossman, 2004). It should be kept in mind that E-SCM is a cross-functional decision-making process.

CONCLUSION

IT enabled SCM makes significant improvements in productivity and competitiveness by providing the real time information flow through networking and electronic data transfer, faster response time. Hence improved decision making is possible through timely availability of relevant information. E-SCM is posing new and challenging problems that need to be solved. Therefore, there exists interesting opportunities for decision technology, operations research models, optimisation and economic theory to provide insights about planning and optimisation in the e-supply chain. We expect more developments on real-time tools, modelling and decision systems that use real-time data available through the Internet. These will require solution techniques based on heuristics and approximation algorithms. Another important issue to be studied and developed is multi-criterion decision making, which can provide very interesting insights in the collaborative supply chain (due to the possible conflict of objectives when several firms interact in a supply chain and



the models used to make decisions are based on incomplete information). In spite of some issues related to E-SCM like vertical organization security threats and unable to handle unexpected events, it expects more developments on Internet-based decision support systems and applications that use the Internet to provide solutions and insights to the problems posed by E-SCM. By developing new decision and optimization models and solution techniques, researchers will contribute to help managers to make better business decisions. Finally, we expect more real applications of E-SCM decision problems and case studies on the implementation of decision technologies using the Internet, which reduces the costs of information exchange along the supply chain. In fact, it has been stated that operating in the e-SCM context only requires a free Web. E-SCM places less relative value on long-term partnerships and strategic alliances, increase in partnership opportunities. The cost savings opportunities are more effective in E-SCM. Moreover Short-term, cost-driven benefits can be realized, and long-term partnerships can be developed as needed.

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INTRODUCTION OF MOBILE PAYMENT SYSTEM— AN OVERVIEW

Debashis Kundu*

Abstract: Twenty-first century has become the age of wireless connectivity. All types of mobile devices and mobile service have become so affordable that more than 86% of Indians irrespective of their age, gender and marital status now possess and use the device.

This paper explores the contours and the likely adoption of mobile-based payment channel that has been introduced by Reserve Bank of India (RBI).

The study is based on primary survey data drawn from 215 respondents in and around the city of Kolkata. The questions asked were based on four aspects - level of awareness, perceived benefits of the system, security concerns and possible adoption in near future.

A simple descriptive type analysis based on percentage figures shows that irrespective of gender, about forty percent of the people know about the system, believe in its benefits, and want to adopt it for personal use, while about thirty percent are concerned about the security implications. Irrespective of age, about thirty percent are in agreement with the four aspects. While for people irrespective of marital status, just one-fifth of the respondents are aware, believe in the benefits, have security fears, and may make use of the same in the future.

The medium of exchange has undergone several changes over the ages. Similarly, the mechanism of making payments has also undergone similar changes— from hand-to-hand, through courier, intermediary, electronic systems, the Internet and now through mobile phones.

This paper tries to understand the level of awareness, perception and the willingness of the common people of India from all segments to adopt the latest technique of mobile-based payment system. This will assist the authorities to effectively direct their efforts towards the goal of total financial inclusion among the Indian masses.

Mobile payments is defined as information exchange between two parties for financial transaction through the use of mobile phones. Mobile payment involves debiting or crediting a customer's bank account on the basis of fund transfer instruction received over the mobile phone.

The system has already been running with mixed success across the globe. In countries like South Africa, Uganda, Kenya it has become a rage. But in Japan and South Korea, it has got mixed response. While in the USA and Europe, the system has hardly any takers.

INDIAN DEVELOPMENTS

In the Indian context, Reserve Bank of India (RBI) has allowed selected non-bank entities in August 2009, to issue semi-closed prepaid mobile wallets up to the value of Rs. 50,000/- with full KYC (Know Your Customer) compliance.

Institute for Development and Research in Banking Technology (IDRBT) has laid down the technical foundation for mobile payment system in India. It has set up National Payments Corporation of India (NPCI), the umbrella organisation of all retail payment systems in India.

* Assistant Professor, Department of Commerce, Vivekananda College, Thakurpukur, Kolkata, India.



NPCI has recently rolled out an Aadhaar-enabled payment system (AEPS) project to make banking easier for those at the 'bottom of the pyramid' by involving business correspondents (BC).

Mobile Payment Forum of India (MPFI) is a non-profit body promoted to facilitate implementation of mobile payments in India with secure transactions at low cost through robust technologies.

PROCEDURE OF MOBILE PAYMENTS IN INDIA

In the model designed by IDRBT, the following entities are involved in a mobile payment process - (i) Telecommunication Service Provider (TSP), (ii) Mobile Payment Service Provider (MPSP), (iii) Bank, (iv) Customer, (v) Beneficiary and the (vi) National Payments Corporation of India (NPCI).

A Telecommunication Service Provider (TSP) is a licensed telecommunication company like BSNL or Airtel.

The Mobile Payment Service Provider (MPSP) facilitates financial transactions between mobile phone customers. It can be a bank or its chosen third party.

The customer is a buyer who purchases goods and/or services from another entity, sends a gift or pays a loan to another entity. A customer should have an account (or a debit or credit card) with a Bank to make or receive payments. It is the actual payer.

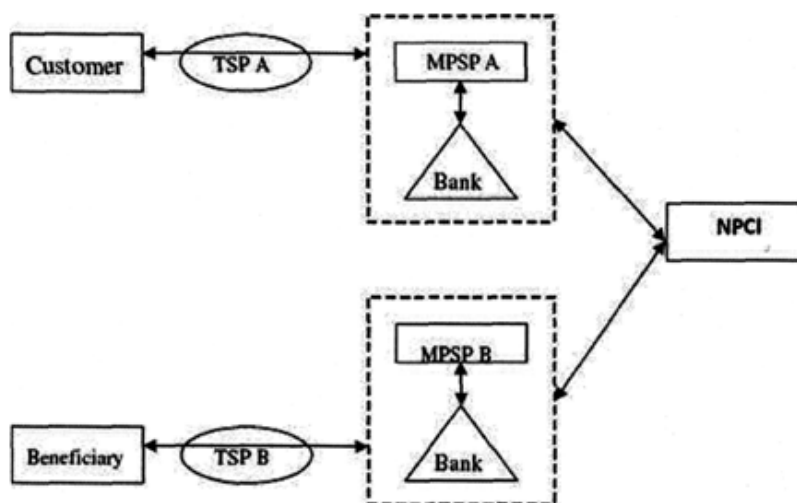
The beneficiary is a seller who benefits from the purchase of a good or service, receives a gift or repayment of loan, etc. It is the final receiver.

National Payments Corporation of India (NPCI) was incorporated in December 2008 under Companies Act. It has been promoted to consolidate and integrate the multiple systems into a nation-wide uniform and standard business process for all retail payment systems. Its goal is to facilitate an affordable payment mechanism for the common man across the country.

The following figure indicates the communication channels between the various entities in a mobile payment process.

FI 1: COMMUNICATION CHANNELS AND INTEROPERABILITY INTERFACES

[<http://www.mpf.org.in>]





The mobile payment system, the customer and the merchant have to first register themselves with NPCI, get their respective MMID and MPIN and load the appropriate software in their devices.

The flow of operations, based on the figure above, is being outlined below.

- Customer types in the Beneficiary's mobile number, MMID (Mobile Money Identifier) along with routing detail and the amount to be sent to the beneficiary.
- Customer's MPSP A receives the request for remittance from customer and sends it to Customer's Bank for debiting the account.
- Customer's Bank debits the customer's account and sends confirmation to MPSP A.
- MPSP A on receiving the confirmation sends the transaction to NPCI.
- NPCI sends the transaction to Beneficiary's MPSP B.
- Beneficiary's MPSP B sends the transaction to Beneficiary's Bank for crediting the account.
- After crediting Beneficiary's account, Bank sends a confirmation to Beneficiary's MPSP B.
- Beneficiary's MPSP sends the confirmation to NPCI.
- NPCI then sends the confirmation to MPSP A of the Customer.
- Customer's MPSP A sends the confirmation message to Customer's Bank.
- Customer MPSP A sends a confirmatory message to customer stating completion of transaction.
- Beneficiary's MPSP B sends the confirmation to customer stating account being credited with certain amount.

The messages carrying inter-bank transaction and financial information are sent using a standardized message format. In India two messaging standards, the ISO 8583 and the Structured Financial Messaging System (SFMS) have been proposed for use in the mobile payment process. SFMS and ISO 8583 are already used by Indian banks for real-time transactions like ATM transactions and credit card payments.

RESEARCH METHODOLOGY

The present study is based on primary survey through a suitable questionnaire. Extensive field work was undertaken to achieve the purpose.

The research questionnaire has three parts - Part I gathered general information about the respondents age, marital status, and gender. Part II enquired about their mobile phone usage, and banking habits. Part III contains a list 21 questions with responses coded on a Likert five point scale.

The 21 questions covered four aspects - awareness about mobile payments (question nos. 1 to 5), perceived benefits (nos. 6 to 11), security threats (nos. 12 to 17), and likely adoption (nos. 18 to 21).

The analyses of the survey findings are done through a simple change in percentage system.

ANALYSIS OF FINDINGS

Relation Between Level of Awareness and Gender

Q1-5	Yes	Maybe Yes	Not sure	Maybe No	No
AVERAGE	44%	14%	19%	4%	19%

Although the concept of mobile-based payment system is quite new (table above), it was found that about $(44+14) = 58\%$ of respondents were somewhat aware of the developments. Only $(4+19) = 23\%$ had



no idea about it. Out of the people who knew, most were male and a small percentage were female (table below).

Q1-5	Yes		May be Yes		Not sure		Maybe No		No	
	M	F	M	F	M	F	M	F	M	F
AVERAGE	68%	32%	76%	24%	66%	34%	79%	22%	63%	37%

[M=Male, F=Female]

Relation Between Perceived Benefits and Gender

Q6-11	Yes	Maybe Yes	Not sure	Maybe No	No
AVERAGE	50%	17%	15%	6%	12%

Mobile-based payment system is expected to be helpful (table above) to about $(50+17) = 67\%$ of respondents. Only $(6+12) = 18\%$ saw no benefit. Again, most of the males (70%) were optimistic while the female respondents were generally found to be pessimistic (table below).

Q6-11	Yes		May be Yes		Not sure		Maybe No		No	
	M	F	M	F	M	F	M	F	M	F
AVERAGE	70%	30%	66%	35%	64%	36%	64%	36%	64%	37%

[M=Male, F=Female]

Relation Between Security Concerns and Gender

Q12-17	Yes	May be Yes	Not sure	Maybe No	No
AVERAGE	25%	20%	27%	10%	18%

Online transactions and mobile-based payment system is generally not considered to be secure. This can be seen from the response of about $(25+20) = 45\%$ of persons (table above). Only $(10+18) = 28\%$ saw no threat. The proportion of males in this case was slightly more than females (table below).

Q12-17	Yes		May be Yes		Not sure		Maybe No		No	
	M	F	M	F	M	F	M	F	M	F
AVERAGE	64%	36%	70%	30%	64%	36%	66%	34%	75%	26%

[M=Male, F=Female]

Relation Between Likely Adoption and Gender

Q18-21	Yes	May be Yes	Not sure	Maybe No	No
AVERAGE	34%	22%	15%	6%	25%



On the crucial question of making use of the system in the near future, (34+22) = 56% of persons (table above) expressed their willingness. While (6+25) = 27% expressed their unwillingness. The males were seen to be more eager than the females who wanted to adopt a wait-and-watch attitude (table below).

Q18-21	Yes		May be Yes		Not sure		Maybe No		No	
	M	F	M	F	M	F	M	F	M	F
AVERAGE	71%	29%	64%	36%	72%	28%	53%	47%	62%	38%

[M=Male, F=Female]

Relation Between Level of Awareness And Age of Respondent

Q1-5	Yes	May be Yes	Not sure	Maybe No	No
AVERAGE	44%	14%	19%	4%	19%

The awareness about the system seems high irrespective of the age of person. While (44+14) = 58% of all age groups are aware, (4+19) = 23% do not (table above). It was also found that the young (less than 25 years old) are more aware of the system than the senior persons (table below).

[< 25 = less than 25 years, >25 = more than or equal to 25 years] Relation between Perceived benefits and Age of respondent

Q1-5	Yes		May be Yes		Not sure		Maybe No		No	
	<25	>=25	<25	>=25	<25	>=25	<25	>=25	<25	>=25
AVERAGE	51%	49%	58%	42%	38%	62%	60%	40%	54%	47%

[<25=less than 25 years, >25=more than or equal to 25 years]

Relation between Perceived benefits and Age of Respondent

Q6-11	Yes	May be Yes	Not sure	Maybe No	No
AVERAGE	50%	17%	15%	6%	12%

A greater proportion of young and old expect the system to be beneficial. While only (6+12) = 18% do not agree to the proposition (table above). As usual, the young respondents were more enthusiastic than the older persons (table below).

Q6-11	Yes		May be Yes		Not sure		Maybe No		No	
	<25	>=25	<25	>=25	<25	>=25	<25	>=25	<25	>=25
AVERAGE	55%	45%	50%	50%	39%	61%	51%	49%	35%	65%

[< 25 = less than 25 years, >25 = more than or equal to 25 years]



Relation Between Security Concerns and Age of Respondent

Q12-17	Yes	May be Yes	Not sure	Maybe No	No
AVERAGE	25%	20%	27%	10%	18%

Security concerns seem paramount among the old and the young. About $(25+20) = 45\%$ of people give it high priority (table above). A very surprising fact is that the young people (<25 years old) seem to be more concerned about online mobile security as compared to the senior people (table below).

Q12-17	Yes		May be Yes		Not sure		Maybe No		No	
	<25	>=25	<25	>=25	<25	>=25	<25	>=25	<25	>=25
AVERAGE	57%	43%	57%	43%	52%	48%	46%	54%	39%	61%

[< 25 = less than 25 years, >25 = more than or equal to 25 years]

Relation Between Likely Adoption and Age of Respondent

Q18-21	Yes	May be Yes	Not sure	Maybe No	No
AVERAGE	34%	22%	15%	6%	25%

The last set of statements regarding future adoption gives an encouraging picture. While about 56% of people want to, another 31% do not. The young, as usual, are more eager to adopt the new system (table below).

Q18-21	Yes		May be Yes		Not sure		Maybe No		No	
	<25	>=25	<25	>=25	<25	>=25	<25	>=25	<25	>=25
AVERAGE	57%	43%	61%	39%	38%	62%	54%	46%	36%	65%

[< 25 = less than 25 years, >25 = more than or equal to 25 years]

Relation Between Level of Awareness and Marital Status

Q1-5	Yes	May be Yes	Not sure	Maybe No	No
AVERAGE	44%	14%	19%	4%	19%

Marital status and awareness about the system were not found to have much of a connection (table above). Only $(44+14) = 58\%$ of respondents were aware of the system, while a smaller number, $(4+19) = 23\%$ had no idea about it. Out of those aware, the married people were found to have inferior knowledge than the singles (table below).

Q1-5	Yes		May be Yes		Not sure		Maybe No		No	
	Mrd.	Single	Mrd.	Single	Mrd.	Single	Mrd.	Single	Mrd.	Single
AVERAGE	41%	59%	34%	66%	48%	52%	19%	81%	40%	60%

[Mrd. = Married]



Relation Between Perceived Benefits and Marital Status

Q6-11	Yes	May be Yes	Not sure	Maybe No	No
AVERAGE	50%	17%	15%	6%	12%

The relation between expected benefits of the system and marital status provides a clear response. While just 15% are not sure, a higher proportion agrees and a smaller proportion disagrees to the above statement (table above). However, the single people are found to be surer of the benefits than the unmarried ones (table below).

Q6-11	Yes		May be Yes		Not sure		Maybe No		No	
	Mrd.	Single	Mrd.	Single	Mrd.	Single	Mrd.	Single	Mrd.	Single
AVERAGE	38%	62%	35%	65%	45%	55%	32%	69%	56%	45%

[Mrd. = Married]

Relation Between Security Concerns and Marital Status

Q12-17	Yes	May be Yes	Not sure	Maybe No	No
AVERAGE	25%	20%	27%	10%	18%

The concern about online mobile security seems to be less related to the marital status of the respondents. While (25+20) = 45% are concerned, a smaller proportion does not (table above). However, the married people are less concerned about the safety of their payment than the unmarried ones (table below).

Q12-17	Yes		May be Yes		Not sure		Maybe No		No	
	Mrd.	Single	Mrd.	Single	Mrd.	Single	Mrd.	Single	Mrd.	Single
AVERAGE	37%	63%	32%	68%	39%	61%	42%	59%	51%	49%

[Mrd. = Married]

Relation Between Likely Adoption and Marital Status

Q18-21	Yes	May be Yes	Not sure	Maybe No	No
AVERAGE	34%	22%	15%	6%	25%

The chance of adopting the new system also seems to be less related to marital status. While (34+22) = 56% may adopt, a smaller proportion does not want to (table above). Once again, the singles are more likely to use the system (table below).

Q18-21	Yes		May be Yes		Not sure		Maybe No		No	
	Mrd.	Single	Mrd.	Single	Mrd.	Single	Mrd.	Single	Mrd.	Single
AVERAGE	35%	65%	34%	66%	44%	56%	26%	74%	56%	44%

[Mrd. = Married]



CONCLUSION

The system of mobile payments can become an excellent tool in promoting financial inclusion among the unbanked population of India. The points in its favour are the wide reach of the mobile, its low cost compared to international experiences, and simplicity of use. RBI, with help from NPCI and IDRBT has thus designed a system that has the potential to fulfil the task of financial inclusion. However, whether the system will be a success or not depends on many factors. Some of them have been looked into in this paper.

An interesting finding from this extensive study has been that even after six years of launch, just about forty percent of people irrespective of their gender, age and marital status have heard about it even in a metropolitan city like Kolkata. This indicates very poor publicity. The younger people, males and the married are better informed and more likely to use the system. But the knowledge about mobile security matters is less than thirty percent. Giving people access to such a system without properly intimating the pitfalls may cause irreparable damage to its reputation.

All in all, though mobile based payment has the potential to promote financial inclusion, but its success depends on addressing the crucial aspects as discovered through this research paper.

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E-COMMERCE UNDER CLOUD COMPUTING ENVIRONMENT

Madhusree Kundu (Banerjee)*

Abstract: E-commerce has now taken a prominent place in modern business landscape. It has evolved from desktop to mobile devices and across all product categories. Cloud computing promises to take this transition a step forward by migrating the entire business operation of online companies and those of its customers to the cloud, i.e., the Internet. Companies can leverage the infrastructure of cloud service providers and modify or scale up its business as required. Customers can access the online marketplace from any mobile device from anywhere, anytime. They can also enjoy sophisticated online security systems and a richer buying experience in the cloud. But there are some issues with the cloud which may pose some challenge in its widespread adoption by the general population.

Cloud computing refers to the use of computing resources (hardware and software) that are delivered as a service over a network (typically the Internet).

Cloud Computing technology uses the Internet and central remote servers to manage data and applications and allows consumers and businesses to use applications (without installation) and access their personal files from any computer with Internet access. It is a subscription-based service providing networked storage space and computer resources.

A simple example of cloud computing is Yahoo email, Gmail, or Rediffmail. The server and email management software is all on the cloud (Internet) and is totally managed by the cloud service provider Yahoo, Google, or Rediff. The consumer can just use the software and enjoy its benefits.

Cloud computing has three key components - "application" "storage" and "connectivity." Each segment serves a different purpose and offers different products for businesses and customers around the world. (Fig. 1)

According to NIST (National Institute of Science and Technology), cloud computing has the following characteristics:

- On-demand self-service
- Broad network access
- Resource pooling
- Rapid elasticity
- Measured service

There are typically four different types of clouds:

Public Cloud - A public cloud can be accessed by any subscriber with an Internet connection and access to the cloud space. A public cloud exists where several organisations have similar requirements and want to share infrastructure.

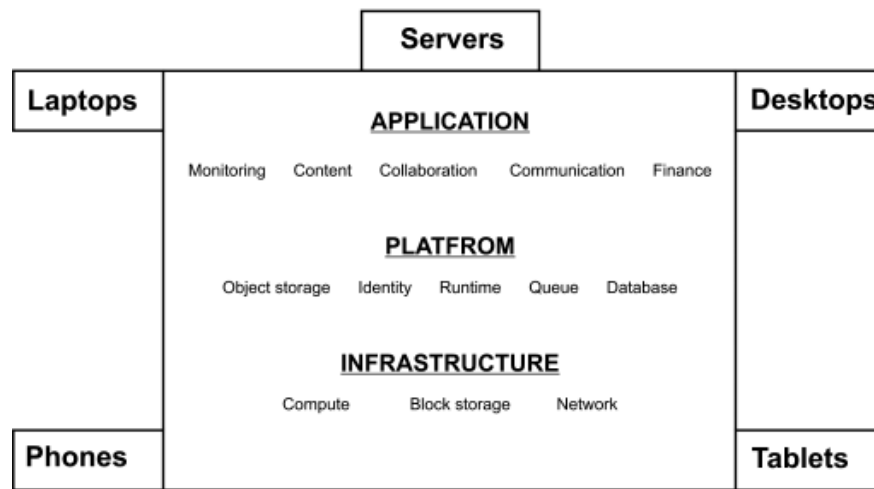
Private Cloud - A private cloud is established for a specific group or organisation and limits access to just that group. Private clouds, also called on-premises cloud, are cloud deployments inside the organisation's premises, managed internally with advantages in terms of security.

Research Scholar, Department of Commerce, University of Calcutta, Kolkata



- c) **Community Cloud** - A community cloud is shared among two or more organizations that have similar cloud requirements.
- d) **Hybrid Cloud** - A hybrid cloud is a combination of at least two clouds, where the clouds included are a mixture of public, private, or community.

Fig. 1: An Illustration of Cloud Computing



ELECTRONIC COMMERCE

Electronic commerce or e-commerce is no longer simply about selling online. It has now evolved into delivering a smarter and more engaging buying experience. Now-a-days companies interact with customers through different touchpoints, facilitating an easier customer buying experience that helps in increasing company revenues, customer satisfaction and loyalty.

As today's customers continue to evolve, they become more informed and knowledgeable by gaining access to ever-increasing sources of information. Online customers have become less loyal to particular brands they trusted in the past. Competitive products have become cheaper and easier to buy. This represents a new set of challenges to managing brands both online and offline. (Fig. 2)

These same customers have also become active participants in forming brand identities by interacting with others through tools such as forums and blogs, social networks and services. The evolution of this new customer has strong implications for businesses and brands, representing threats and opportunities for future success. There is thus an increased need for customer service, including awareness of how your brand is perceived in the social networks like Twitter to Facebook.

SIGNIFICANCE OF THE STUDY

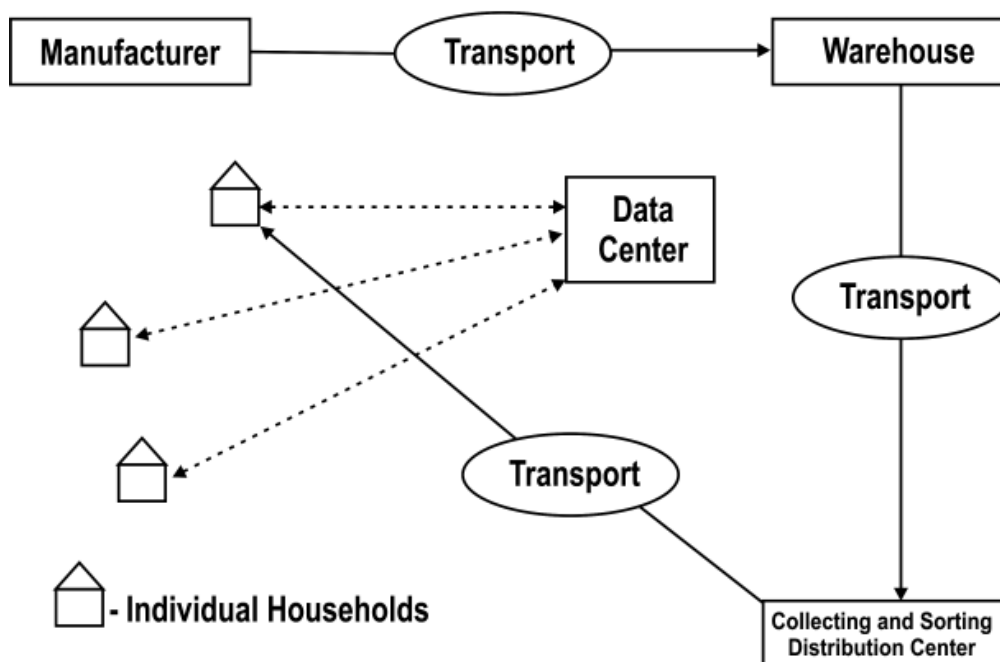
Computing technology changes fast, but computing services are changing faster. The still 'new' mode of e-commerce is taking on a new avatar under the cloud computing environment. This paradigm shift in conducting business online is what is tried to be captured through this short study.



The first phase of computing combined software and operating systems into one terminal allowing basic communication through services such as email.

The second phase allowed the user to connect to the World Wide Web containing millions of websites and facilitate exchange of information.

Fig. 2: E-Commerce Product Flow Diagram



In the present third phase, everything is expected to exist in the cloud - including your data and software. By 2020, there could be more than 100 billion devices and sensors accessing these remote data centres in the cloud. Only a small amount out of these, approximately 1.4 billion, will be personal computers.

Within 10 years, it is predicted by experts that 80% of all computing, storage, and e-commerce done worldwide may take place in the cloud. This is being termed as the third phase of Internet computing in the modern era.

This paradigm shift highlights 2010 as a watershed year in the rise of cloud computing and mobile devices in changing where and how information (and applications) is accessed.

The progression away from the mainframe to personal computers is now being superseded by the dual arrival of the Smartphone and cloud computing. In each step the underlying structure of computing has become more distributed. This has profound implications for how consumers, vendors and suppliers will interact inside the e-commerce environment over the near future.



UNDERSTANDING THE MODEL

Existing businesses, whether already online or in the process of creating an online interface, should clearly understand the value proposition before migrating their systems to the cloud.

The maximum value for a business lies in the feature called "rapid elasticity". This allows the business to instantly get access to extra capacity without buying any new software and hardware, or having to acquire more data centre space.

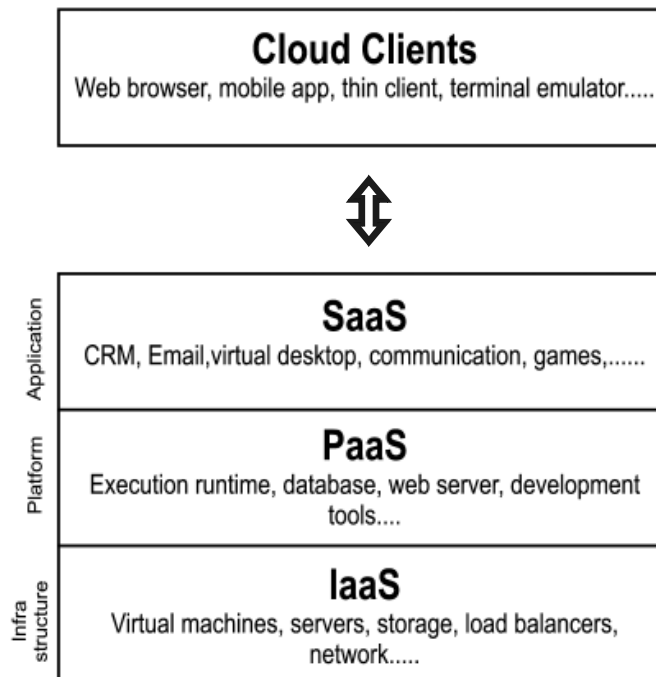
The companies who move portions of their ecommerce systems to cloud computing have to first ask themselves the following four questions. If the answer is "Yes" to at least two of the following questions, the need for cloud computing arises.

1. Do you have excess computing capacity standing by (e.g., idle servers and databases) when your ecommerce systems need the additional processing power, such as on holidays?
2. Is the security mechanism around the information you retain and/or process low to medium?
3. Will your business benefit by the preservation of capital?
4. Will cost reductions have a direct benefit when considering the profitability of the company?

It is interesting to note that the questions above are more about the business benefit of cloud computing than the technological advantages, because that's the way businesses deploying ecommerce systems look at them.

The three main Technology platform services currently provided though cloud are - Platform as a Service (PaaS), Software as a Service (SaaS), and Infrastructure as a Service (IaaS). (Fig. 3)

Fig. 3: Technology Platforms of The Cloud





Infrastructure as a Service (IaaS): In this most basic cloud service model, cloud providers (sometimes called host) offer computers, as virtual machines, and other resources. The virtual machines are run as guests by the users. Other resources in IaaS clouds include image library, file-based storage, firewalls, IP addresses, virtual local area networks (VLANs), and software bundles.

To use their applications, businesses (i.e., the cloud users) then install operating system images on their machines as well as their application software. In this model, the cloud user is responsible for patching and maintaining the operating systems and application software. Some examples of IaaS include Amazon CloudFormation, Rackspace Cloud, Terremark, Windows Azure Virtual Machines and Google Compute Engine.

Platform as a Service (PaaS): In the PaaS model, cloud providers deliver a computing platform having operating system, programming language execution environment, database, and web server. Application developers can develop and run their software solutions on a cloud platform without the cost and complexity of buying and managing the underlying hardware and software. In some PaaS services, the underlying computer and storage resources can automatically match application demand.

Some examples of PaaS include Amazon Elastic Beanstalk, Cloud Foundry, Heroku, Google App Engine, and Windows Azure Compute.

Software as a Service (SaaS): In this model, the cloud providers install and operate application software. The cloud users simply access the software and do not have to manage the cloud infrastructure and platform on which the application is running. This simplifies maintenance and support.

The pricing model for SaaS applications is typically a monthly or yearly flat fee per user. This price is scalable and adjustable if users are added or removed at any point. There are various tools and features that users will be able to track when using the cloud computing resource.

BENEFITS TO E-COMMERCE

The current online business activity has already acquired a scale and understanding by the customers. This is clearly reflected though the growth in terms of online customers, revenues and profits of both the service providers and the online businesses. However, the coming wave of cloud computing provides some additional benefits to the businesses.

Trust: It took the existing online companies years to build trust into their networks and establish online credentials that made buyers feel comfortable in conducting online transactions. But with the advent of cloud computing, existing businesses and particularly new businesses can immediately leverage the trust built by established cloud service providers like Google, and Amazon. A business can now tell its customers that their technical platform is managed and secured by the best cloud companies in the world.

Cost Savings: It is one of the primary reasons for moving a business to the cloud. In traditional e-commerce, the cost of developing and deploying an e-commerce application, the supporting hardware and bandwidth turns out to be expensive. But, a cloud-based initiative on a virtual server may save a company 80% of the costs normally associated with a traditional e-commerce roll out.

Improve time to launch: Organisations can quickly configure, customise and launch products with the help of business-ready applications available in the cloud. There is zero IT setup time (buying hardware, software, systems integration etc.). A company may be able to roll out its e-commerce



service five times faster than before and begin selling immediately from the remote platform.

Scalability: This feature is often referred to as 'elastic'. The cloud services allow a business to scale up quickly and support sudden increase in demand or those induced by special promotions.

Security: Most of the cloud service providers have third-party certification, including ISO 27001. They have additional security measures like data encryption, biometric screening of employees and certification through third-party assessment programmes. The customers also enjoy enhanced security of their transactions.

Interoperability: There is a growing trend in the ability of sharing information between clouds and communities of clouds. The top cloud vendors are expected to offer standardised framework for such information sharing.

Innovation: The companies can now pay more attention to the innovation process because they don't have to devote time on managing online resources. Cloud computing produces a faster development pace for prototype and testing phases. The cloud provides e-commerce businesses with the agility to keep pace with this ever-changing social commerce landscape.

Convenient: Since overheads are low when sharing the same infrastructure, the services are available for use immediately. Payments are only billed for the times the service is being utilised by the businesses.

Flexible: There is a high rate of flexibility because businesses can opt out of using it whenever they want too. Service level agreements cover the costs in this case. If the correct quality is not provided then the service provider has to pay a penalty cost.

Device Diversity: The cloud computing systems can be accessed through various different electronic devices that have access to the Internet. These devices can include tablet computers, smartphones, laptops, besides the desktop computer.

ANTICIPATED CHALLENGES TO E-COMMERCE

As with any other systems and processes, cloud computing has its share of unique challenges that must be considered by both the online business and the customer before migrating to the cloud.

Possible downtime: Cloud computing makes the small business dependent on the reliability of Internet connection. When it is offline, the business goes offline. And even the most reliable cloud computing service providers suffer server outages now and again.

Security issues: Cloud computing means Internet computing. There is still no system that offers fool-proof security over the Internet. So transacting through cloud can only be considered safe if the cloud computing vendors have the latest and most sophisticated data security systems.

Cost: At first glance, a cloud computing application may appear to be a lot cheaper. But the user must do a total cost comparison. While many cloud computing providers claim to only charge for actual usage, Gartner, a renowned market analytics firm, says that in most cases, a company is required to commit to a predetermined contract independent of actual use. So, the user must look closely at the pricing plans and details for each application.

Gartner also points out that the cost savings of cloud computing primarily occurs at the initial stage. After about two years of usage, the on-premises option becomes the cost-savings winner from an



accounting perspective as the capital assets (i.e., the computing systems owned by the company) involve depreciation.

Inflexibility: If a business chooses a cloud computing vendor that runs only on proprietary applications or formats, the company cannot insert a document created in another application. The user should also make sure that it can add and subtract customers as the business grows or contracts.

Lack of support: As with other form of businesses, customer service for Web applications leaves a lot to be desired. If a cloud vendor promises to respond say within 48 hours, it is not an acceptable way for online companies to run their business.

SECURITY ISSUES

There are many security issues in cloud computing as it encompasses different technologies involving networks, databases, operating systems, virtualisation, load balancing, memory management, etc.. Therefore, security issues for these systems are also applicable to cloud computing. Some commonly known examples are—

- The network that interconnects the systems in a cloud has to be secure.
- The mapping of virtual machines to the physical machines has to be carried out securely.
- Data security issues involve encrypting the data as well as ensuring that appropriate policies are enforced for data sharing.
- Resource allocation and memory management algorithms have to be secure.
- Data mining techniques may be applied to detect malware in clouds.

The **ten questions** that need to be asked by the online business to the service provider are being exhibited below:

Where is the data being physically stored?

The cloud provider should provide some information regarding the physical location of its servers containing client data. They should also agree in writing to provide the level of security required for the customers' business.

Who has access to the data?

Access control is a key concern, because insider attacks are a huge risk. The company must know who is managing its data and what types of controls are applied on the employees.

What are the regulatory requirements?

This is because organisations operating in different countries have many regulatory requirements to follow. The cloud provider must be able to meet these requirements

Do the business has the right to audit?

This cloud provider should agree to allow the business conduct independent audit of its systems and processes.

What type of training does the provider give its employees?

The kind of training provided to the employees is an important item to review.

What type of data classification system does the provider use?

This looks into the data classification system, type of encryption used while data is in storage and in transit.



What are the service level agreement (SLA) terms?

The SLA outlines the contracted level of guaranteed service between the cloud provider and the customer.

What is the long-term viability of the provider?

This point determines the track record of the cloud provider, and if they go out of business, what happens to the data of the business.

What happens if there is a security breach?

It outlines the support from the cloud provider during any attack.

What is the disaster recovery/business continuity plan (DR/BCP)?

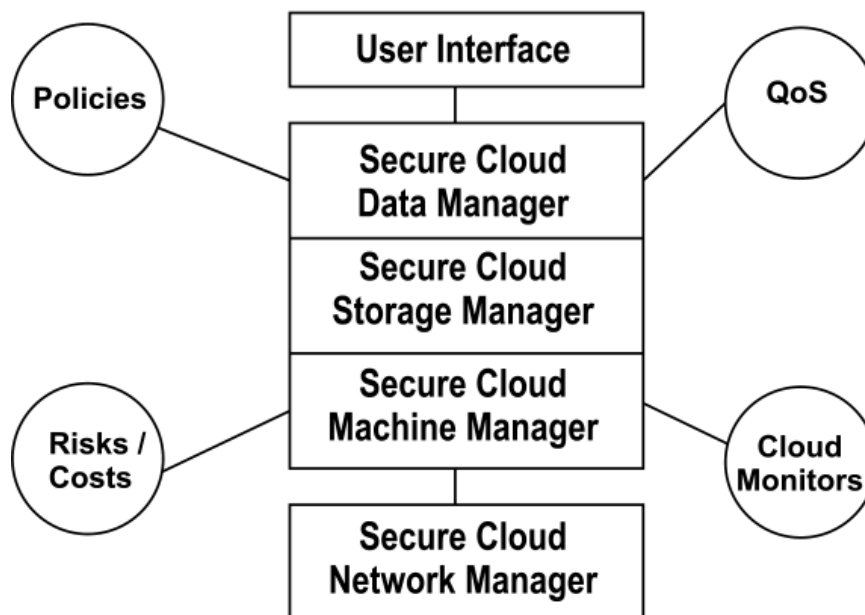
When there is a fire, storm, natural disaster, or loss of power in the storage server, how will the cloud provider respond, and what guarantee of continued services are they promising.

In a latest incident, Gmail reported an outage that affected its EU users. It was further reported by MSNBC that foreign correspondents may have been targeted.

A paper by Hamlen, et. al. (2010), describes an approach that may be adopted to secure transactions over the Cloud. They have defined a layered framework for assured cloud computing. (Fig. 4) The layers consist of the secure virtual machine layer, secure cloud storage layer, secure cloud data layer, and the secure virtual network monitor layer.

Some additional supporting services are provided by the policy layer, the cloud monitoring layer, the reliability layer and the risk analysis layer. For the Secure Virtual Machine (VM) Monitor the approach combines both hardware and software solutions in virtual machines to handle problems such as key logger examination and providing secure distributed storage and data management.

Fig. 4: A Layered Framework for Secured Cloud





BEST PRACTICES

There are a few guidelines that have evolved in the cloud computing space that helps to provide some preventive measures against any possible mishap. These apply both to the online companies as well to its customers.

- Inquire about exception monitoring systems
- Be careful about updates and make sure that employees are not given unauthorised access to key systems
- Ask where the data is kept and also about the details of data protection
- Conduct an independent security audit of the service provider
- Find out the third parties the company deals with and whether they are able to access its data
- Be careful about password management regarding how they are created, protected and changed
- Enquire about any guarantees and penalties.
- Check whether the cloud service provider can accommodate the companies' own security policies

The next group of activities help the online business to internally organise its operations to achieve the best result from the cloud.

- Understand the top contact drivers (the underlying reasons that are causing customers to contact you) and the associated interaction volumes (the total number of customer phone calls, chat sessions, self-service sessions, or e-mails handled) is the first step in designing an effective contact centre operations.
- Define the logical processes for high-volume categories. A defined process helps in the preparation of employee training programs by identifying appropriate materials, tools, and measures.
- Implement optimized workflows for the logical business processes. Usability is a key aspect that should be considered while developing user interfaces for the employees.
- Streamline the highly repetitive processes. This optimises the efficiency of the most-repeated processes and reduces average handle time.
- Segment the Workspace for Each employee. The grouping of specific workspaces makes employees more effective in their job.

When selecting a cloud service provider, the online business should pay close attention to the provider's disaster recovery plan (DRP) and the specific details established in the SLA (Service Level Agreement). The company should also—

- Understand what constitutes a disaster
- Know who can declare a disaster
- Be aware of what measures are in place to minimise impact to operations
- Know the Recovery Point Objective (RPO), i.e., how much data loss the business can tolerate
- Know the Recovery Time Objective (RTO), i.e., how quickly the business can become operational after any disaster
- Know the details of service interruption strategies, such as a hybrid in-house/cloud system, disk backups, or off-site data replication. These are important to ensure minimal losses in the event of a disaster.



PRESENT AND FUTURE POTENTIAL

By 2020, it is predicted that there could be more than 100 billion devices and sensors accessing these remote data centres in the cloud. Only a small amount out of these, approximately 1.4 billion, will be personal computers.

Within 10 years, it is predicted by experts that 80% of all computing, storage, and e-commerce done worldwide may take place in the cloud. This is being termed as the third phase of Internet computing in the modern era.

This virtualisation of server infrastructure - sharing one server as if it were several - allows for huge cost savings and economies of scale.

Hybrid models are also possible whereby a business can build its own private cloud and temporarily access additional public cloud services when required. An example of this could include an e-commerce site, which leverages further cloud services to deal with the effects of a successful social media campaign without having to upgrade its infrastructure.

It is predicted by IDC that in just five years, the value of cloud services will grow by over five times to about \$55 billion. The biggest share of this market is expected to be occupied by the provision of cloud applications. (Table 1)

As of 2010, the SaaS model was the most dominant and widespread cloud variant in the marketplace.

Table 1: Present and Future of Cloud Services

	2009 (in percentage)	2014 (in percentage)
Storage	9	13
Applications	49	37
Application Development or Development	10	16
Infrastructure Software	20	20
Servers	12	14
Total Spending	\$ 16.5 B	\$ 55.5 B

[Source: IDC, June 2010]



CONCLUSION

In summarisation, the cloud provides newer options for the everyday computer user as well as large and small businesses. It expands the usage of computers to different tasks and makes it accessible to the general people. However, with this increased usability comes less control over personal information and no knowledge of where it is stored. The user must also be aware of the security risks of having data stored on the cloud. Additionally, the user (individual or business) must understand what type of cloud will be best for his needs, what type of provider will be suitable, and reputation and responsiveness of the cloud provider.

All said and done, the advantages of the cloud make it suitable for the modern generation who prefer to access the Internet mostly through mobile devices.

The term cloud computing is no longer an industry fad but signals a paradigm shift in how business data and e-commerce applications is stored, accessed, shared, and transacted online. In tandem, many mobile applications and services are provided from the cloud in a variety of ways for the e-commerce operations.

The arrival of cloud computing is in many respects equivalent to arrival of the Internet in the 1990s. It proves the maxim prophesied by Google CEO, Eric Schmidt in 2006, when he declared "the network will truly be the computer."

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MYTH AND REALITY OF SWARNAJAYANTI GRAM SWAROJGAR YOJANA: A JOURNEY FROM SELF HELP GROUP TO MICROENTERPRISE IN THAKURPUKUR- MAHESHTALA BLOCK OF SOUTH 24 PARGANAS DISTRICT

Sujit Thakur*, Saikat Dutta** and Pampa Sen Gupta***

Abstract: The study focuses on the performance, whether degrading or improving or for that matter stagnating, of all the 126 Self Help Groups (SHG) in our home block, Thakurpukur-Maheshtala, during the period viz., 1999-2012. In so doing it first portrays the overall scenario for the South 24 Parganas district on the basis of secondary data obtained from the District Rural Development Cell. The district features inspirational success stories of some SHGs which have matured promisingly in terms of its members carrying out economic activities after passing Grade II test but there is no denying a gloomy side as well which gets pictured in numerous SHGs stagnating while pursuing economic activities after clearing Grade I test and some others failing to overcome even this first step of their journey. The inter-block analysis identifies the home block as poor performer (23 in BORDA ranking out of 29). Despite poor performance, on the basis of primary data we come across some successful SHGs in Chatta Gram Panchayat. And however dark be the situation for the block, there is still light at the end of the tunnel as majority of them could well assist the other less fortunate fellow groups in their humble venture and make something out of it.

The problem of poverty and unemployment has always been the biggest challenge to development planning in India (Kapila, 2010). An appraisal of poverty alleviation programmes and employment generation schemes clearly indicates lack of proper initiative on Government's side in tackling the problem till the third five-year plan. The decade of '70s however witnessed a significant change in the thought process of Indian planners, courtesy to the pioneering study of Dandekar and Rath (1971) relating to the extent of poverty in India. It is around this time that several rural development and employment programmes (like Small Farmers' Development Agency, Marginal Farmers' and Agricultural Labourers' Development Agency, Drought-Prone Areas Programme, Crash Scheme for Rural Employment, Pilot Intensive Rural Employment Project, Food for Work Programme etc.) were introduced for the predominantly rural Indian economy. During the sixth plan focus on rural areas intensified further in an effort to help the cause of Below Poverty Line (BPL) families and accordingly several schemes like Integrated Rural Development Programme, National Rural Employment Programme, Rural Landless Employment Guarantee Programme, Development of Women and Children in Rural Areas, Training of Rural Youth for Self-Employment etc. were launched. Rural poor women, as the most victimized section of the society were given much greater attention and brought under the schemes like DWACRA and TRYSEM. Later, in 1999, all these programmes were restructured and integrated into the self-employment programme viz., Swarnajayanti Gram Swarojgar Yojana (SGSY) with an objective to bring the assisted swarojgaris (members of self-help groups) above the poverty line by providing them with income-generating assets through bank credit and Government subsidy. The primary

* Guest Lecturer in Economics, Vivekananda College, Kolkata, West Bengal, India

** Associate Analyst, XL Dynamics India Pvt. Ltd., Navi Mumbai, India

*** Associate Professor in Economics, Vivekananda College, Kolkata, West Bengal, India



aim was always to hit the ever rising poverty and trickle down its positive impact to meet the coherent problem of unemployment. Cheap subsidies can never replace the independence and self respect that employment brings in a life of a marginalised beneficiary. Providing individual employment being a herculean task for a developing economy like India, group employment through SGSY seemed to be much more effective. Through SHG, this scheme was planned to provide a basket of facilities to the poor and the marginalized specially to women and therefore aimed at group empowerment of once poverty-stricken population. With the launch of National Rural Livelihood Mission (2011), SGSY ceases to exist. Nevertheless it seems worthwhile to make a review of this programme so as to understand to what extent the State has been successful to create an enabling ethos in ensuring benefits of higher growth to the weakest section of population in rural economy . The present study is directed to this end.

More specifically this study focuses on the performance of all the 126 self help groups in Thakurpukur-Maheshtala during the period spanning from 1999-2012. Motivation behind this work stems from the study of HDR of the district, South 24 Paraganas, in West Bengal (2009), where Sen Gupta and Das notice that though the performance of SHGs is commendable in the district considered as a whole, there are sufficient inter-block disparities and this fact quite expectedly leaves room for much more to be achieved. Besides the curiosity to map down our home block—Thakurpukur-Maheshtala on the performance list flushes an added motivation to our research.

The present study is divided into five sections. Section 2 presents a brief literature survey on the various facets of functioning of SHGs. Sources of data and methodology used in this study are spelt out in section 3. Section 4 makes an attempt to analyze the performance of such groups since inception till their becoming independent micro-enterprises in the blocks of South 24 Parganas district in general and in Thakurpukur-Maheshtala block of this district in particular. The blocks are found to have done a satisfactory job, even if not promising (HDR, South 24 Parganas District, 2009). There however exists inter-block variation and Thakurpukur-Maheshtala block emerges as a moderate performer on grounds of some chosen indicators during the period 2003-2007. But it is yet to be seen whether the home block is still able to hold on the tag of a moderate performer when we extend the time span from 2003-2007 to 1999-2012. The final section summarizes the important findings, implicates policies and concludes.

A BRIEF LITERATURE SURVEY

The setting up of micro enterprises starting from culmination of a small group with around a dozen poverty-stricken individuals (Box 1 and Appendix 1) requires a sound social entrepreneurial proceeding. The work to be done here is far more than meets the eye. However some honest strategies and effective executions on the part of government and many other not so star-studded NGOs have laid the foundation of a better future for the less blessed ones. The giant share of work in this direction can be credited to NABARD.

A chronological history of rural credit sector in India (Datta,2012)indicates that in 1987, Mysore Resettlement and Development Agency (MYRADA) approached NABARD for policy changes regarding funding for self help groups i.e. (1) bank lending to unregistered groups, (2) lend to group as a whole instead of individual members, and (3) lend without collateral. This laid the foundation for NABARD's SHG bank linkage program of 1992, which debuted with a pilot program involving 500 SHGs. There have been quite a number of studies regarding the revolution that the SHGs had brought in the rural scenario. We throw light on some selected ones.



In her study (2008) Gonsalves makes an appraisal of NABARD's performance since its inception. As per this report NABARD has made an outstanding achievement so far. To spell out a few, it has provided 45 percent of ground level credit in 1992 and linked 2,238,565 Self Help Groups (SHG) in their SHG Linkage Program. Gender equality and women's empowerment has been a fundamental goal of development. NABARD sees promotion and bank linking of SHGs not as a credit program but as part of an overall arrangement for providing financial services to the poor in a sustainable manner and also an empowerment process for the members of these SHGs.

Tankha (2002) examines the role of SHGs in delivery of financial services and the development of SHGs in India focusing on three main issues; efficiency, effectiveness and sustainability. The study indicates initial inability of financial delivery process to materialize the goal. The cost of SHG promotion declines in an area where the number of SHGs increases or the existing SHGs help to form new SHGs. Quality and institutional sustainability of SHGs are found doubtful. Many of the leading NGOs are noted to have phased out from the field just after linking the SHGs with bank.

Fouilet and Augusburg (2007) analyse the spatial distribution and evolution of the Self-Help Groups using the data of Banking Linkage Programme. They look into picture maps by two yardsticks: the relative strength of households in SHGs computed by the ratio of households in SHGs to total District households in the state; and the pace of change in SHGs calculated by the percentage change in the total number of SHGs. The study points towards a continuing pattern of regional inequality in both the District and State level.

The study by NCAER (2008) makes an attempt to assess the impact and sustainability of SHG bank linkage on the socio-economic conditions of the individual members and their households in the pre-SHG and post-SHG scenarios. The study is conducted for India as a whole covering six states (Andhra Pradesh, Karnataka, Maharashtra, Orissa, Uttar Pradesh and Assam) from five different regions, namely the south, west, east, central and north-east. The overall findings of the study suggest that SBLP has significantly improved the access to financial services of the rural poor and had considerable positive impact on the socio-economic conditions and the reduction of poverty of SHG members and their households. It has also reportedly empowered women members substantially and contributed to increased self-confidence and positive behavioural changes in the post-SHG period as compared to the pre-SHG period

Parida and Sinha (2010) explore the performance and sustainability of this type of program in India at the group level. Because income-generating activities and other characteristics vary with the gender composition of Self Help Groups, their performance and sustainability vary. The analysis in this study is based on data from a survey carried out in six states in India. Overall, the performance analysis reveals that all-female SHGs perform best. The female SHGs are doing particularly well in terms of recovery of loans and per capita saving. The econometrics results indicate that only all-female SHGs are sustainable. The factors that determine the sustainability include recovery of loans, per capita savings, and linkage with an SHG federation.

Reviews pertaining to some particular states may now be cited.

Deininger and Liu (2009) in their study relating to SHGs in Andhra Pradesh infer that long term program exposure of SHG results in positive economic and social impacts to the members of SHGs irrespective of



whether they are from the poorer families or not. Significant economic gains are noticed in the form of higher level of consumption, better nutrition and asset accumulation. On a different note, Dev (2012) provides an important information that the Andhra Pradesh Government is implementing a statewide rural poverty eradication programme based on social mobilization and empowerment of rural poor women. This programme is popularly known as 'Velugu' or Indira Kranthi Pathakam (IKP).

In another study relating to SHGs of Jammu, it is noted that SHGs can be considered as an alternative instrument of financial intermediation for the needful people. (Mehta, Mishra and Singh, 2011). The SHG-Bank Linkage Programme leads to an improvement of the access to financial services for the poor and thus has considerable impact on the upliftment of socio-economic condition. SHG seems to have proved itself, they argue, as an important women empowerment tool. In fact, SHG has a remarkable effect on the state of civilization as the involvements with SHG alleviate economic adversities which in turn reduce family violence in the form of verbal abuse.

A few studies from West Bengal are taken up below.

Sarker and Dey (2010) attempt to examine whether women's involvement in the micro-credit programme through SHGs makes any remarkable change on women's empowerment or not. The improvement is measured by different indicators involving 5 main criteria which are power, autonomy and self-reliance, entitlement, participation and awareness and capacity building. The results indicate visible changes among women from their active involvement in micro credit programmes through SHGs. It is suggested that the programme needs to be expanded under community development schemes in every area of West Bengal for properly utilizing women's knowledge and skills in social development along with the task of empowering them.

In the District Human Development Report, a study by (Sen Gupta and Das, 2009) provides some important information relating to the block-wise performance of SHGs in the District of South 24 Parganas. The block-wise functioning of SHGs with a focus on gender empowerment is vividly analyzed. Though the preliminary motivation of the present study stems from here but it chooses its own unique path along the course. Besides the individual block-wise performance, the study takes up the SHGs from the Thakurpukur-Maheshtala block and their journey is studied extensively.

Box 1: Self Help Groups under SGSY: A Guideline

A SHG is a group formed by 10-15 people each from a different household, preferably BPL, living in the same locality /village of a block. While majority SHGs are formed exclusively by women, few are formed exclusively by men and the rest are mixed groups of which again more than 80% are women. In view of this poor numerical strength of men SHGs and overwhelming presence of women in mixed SHGs, we make our analysis of gender empowerment without any loss of generality, on the basis of performance of SHGs as a whole.

At this stage mention must be made of SHPI, which takes a great role in motivating and forming the group. After several rounds of meeting, the list of the people interested in forming the group, along with the recommendation of Gram Panchayat Pradhan is sent to the District Rural Development Cell (DRDC) for its approval. Once the approval is met, the SHG is formed, with the date of their first meeting considered as the



Box 1. continued...

date of the group formation. After the group is formed and its names and dates of monthly meetings are fixed, members are motivated enough to save regularly as per their capability and after period of about one month a savings account is opened with a regularized rural bank on a nationalized bank in the joint names of all the members. The savings account, it may be mentioned at this stage however is operated by two persons, fixed by the members themselves and each member keeps records in her own handbook. After one month or so, members, one by one, can take personal loans as well as loans for carrying out small economic activities and repay such loans with interests inclusive of both bank interests and interests accrued due to inter lending among members. DRDC provides Basic Orientation Training to the members of a group under the guidance of SHPI, where they learn about the functioning of a SHG and SGSY in detail. In the meantime, they take part in some social activities as well like Sarbo Siksha Abhijan (SSA), Pulse Polio Immunization programme, sanitation programme etc. All these continue for at least six months after the group is formed and the SHG members appear for their first evaluation viz, Grade I evaluation.

A SHG passes this test with minimum of 60% marks depending on its performance for the past six months mainly in the following aspects, among other things :

- (a) Whether meetings are held regularly and the rate of presence of members in the meetings are satisfactory,
- (b) Whether savings are made regularly
- (c) Whether the loans taken from the savings are repaid properly
- (d) Whether the group is involved in social work and the extent of its involvement, and
- (e) Whether the helper is involved in the regular activities of the group.

The bank in question opens another account viz., the 'Cash Credit A/C' in the name of the group which passes Grade I, of the amount up to four times higher the group corpus. The DRDC gives a revolving fund (RF) to the group of amount Rs. 5000. A SHG may now take loans from Cash credit A/C to carry out small economic activities either in individual capacity or as a group depending on the decision of the group in this regard. The DRDC, it must be mentioned at this stage, makes arrangements for skill up gradation training to enhance the skill of the members of a group and make them enable to carry out their individual or group economic activities in a much better way. In this way the members of a SHG after passing Grade I, make attempts to improve the standard of living of the respective BPL households, they belong individually to, and gradually prepare themselves for undertaking large economic activity as a group in future.

A Grade II test is held at least after six months of passing Grade I test, to examine the group potential for undertaking large economic activity. And other performance of a group depends mainly on the following aspects :

- (a) Indicators of Grade I evaluation, mentioned earlier,
- (b) Whether the amount of RF has been used properly
- (c) Whether the repayment of loan taken from Cash Credit A/C has been satisfactory, and
- (d) Whether the group has really been able to form proper idea about implementation procedure of its undertaking large economic activity.

At the end of Grade II evaluation, two types of results may happen -

Case I: The SHG gets more than 60% marks but less than 80 per cent marks.

Case II: The SHG gets 80% or more marks.



Box 1. continued...

In Case I, the relevant group is not considered eligible to get loan from bank for undertaking large economic activity. It is, however, given some more time to increase its potential in this regard. In this case, the DRDC may, further give another RF of amount Rs. 5000/- The Bank too may enhance its upper limit of cash credit a/c after reviewing the amount of group corpus of the SHG at that time.

In Case II, the concerned SHG is considered to have successfully completed the Grade II evaluation. Accordingly, it is asked to submit a project to the bank indicating clearly of about its proposed large economic activity and the amount of loan it requires for this purpose. Bank sanctions its loan, depending on the past performance of SHG in regard to loan repayment. After bank's sanction the project is submitted to DRDC which gives it a subsidiary amounting to either 50% of project cost but not more than the maximum limit of Rs. 1.25 lakhs or Rs. 10,000 per BPL member, whichever is smaller. Bank disburses its loan, after duly opening a loan account with the name of SHG. All loans are mid-term ones, with 5 years as the time limit for repayment. The DRDC again arranges for training of the SHG to make it understand about the procedure of loan repayment and running an enterprise. Constant monitoring continues with an aim to help each member to earn at least Rs. 2000/- month, improve the socio-economic condition of the respective BPL families and thereby make them self-reliant.

Source: District Rural Development Cell, South 24 Parganas District.

DATA AND METHODOLOGY

Analysis of the present study is divided into three distinct parts. The first two parts are based on secondary data are furnished by the District Rural Development Cell of South 24 Parganas District for the period from 1999 to 2012. The third part is based on primary data collected using the questionnaire and the interviewer methods for some selected SHGs at Chatta Gram Panchayat. of Thakurpukur-Maheshtala block.

The study begins with an appraisal of the overall SHG performance in the district .In so doing it carries out an in- depth analysis of functioning the twenty nine blocks in the district so as to identify the better, the moderate and the poor performers in this regard, on the basis of some selected indicators . The indicators may be listed as follows

- Percentages of SHGs to Total SHGs Formed in the District
- Percentages of SHGs passed Grade-I to total SHGs formed.
- Percentage of SHGs passed Grade-II to total SHGs passed Grade-I.
- Percentages of SHGs pursuing economic activities to total number of SHGs passed Grade-I.
- Percentages of SHGs pursuing economic activities to total number of SHGs passed Grade-II.
- Percentages of women SHGs to total SHGs formed.
- Percentages of women SHGs in total SHGs pursuing economic activities after clearing Grade-II.

In each of the above cases, for any particular indicator, cumulative value up to the period 2012 is considered and then the percentage is computed. For example, in Table 4.1A, in the entire period 1999-2012, total 126 SHGs have been formed in Thakurpukur-Maheshtala Block out of total 24072 SHGs formed in the district as a whole. The relevant percentage is 0.52 for the block.



The chronological order of the indicator chosen thus would help us understanding the block-wise journey of the SHGs since inception till their becoming micro enterprises. Despite inter-block variations, that may exist to whatever extent, some basic indicators would be identified as contributing most in the performance of the blocks and hence the district as a whole. We rank the blocks by the indicators and finally calculate the BORDA rank.

The second part of the study focuses exclusively on Thakurpukur-Mahestala. It being our home block. Given its BORDA rank as well as ranks in individual indicators, a detailed study demands an inter-temporal analysis of the SHG functioning in this block from 1999 to 2012, to pin point the factors behind its nature of performance for a better understanding in this regard.

For a fuller treatment, we finally consider those SHGs that emerge as successful in terms of carrying out economic activities after clearing Grade II. Interviews with the members of those groups are expected to high light the divergence between myth and reality of SGSY, even for these successful ones.

ANALYSIS OF SHG PERFORMANCE

In this study we focus on the performance, whether degrading or improving or for that matter stagnating, of all the 126 self help groups in our home block, Thakurpukur-Maheshtala, during the period viz., 1999-2012. However, before going into the analytical details of our local block, it seems worthwhile to portray the overall scenario for the South 24 Parganas district. The district features inspirational success stories of some SHGs which have matured promisingly in terms of its members carrying out economic activities after passing Grade II test but there is no denying a gloomy side as well which gets pictured in numerous SHGs stagnating while pursuing economic activities after clearing Grade I test and some others failing to overcome even this first step of their journey.

Inter-block analysis of the district

We begin with the inter-block analysis where we compare all the twenty-nine blocks in the district on important indicators described in the earlier section (Table 1). These indicators clearly bring out the criteria which consequently help us to rank the blocks fairly and easily (Table 2). This inter-block comparison thus helps us dig down deeper into the disparities, the reasons behind them and us with the basis for any policy implications which would further help in narrowing down the same. Our interest in this part of analysis also crops out from our quest to know the standing of the Thakurpukur-Maheshtala block. Beginning with the performances of the blocks in the most basic but the most important indicator of percentage of SHGs formed to the total SHGs in the district, it is observed that, none of the blocks surpasses the double figure mark of ten. The highest value (8.72 %) here is achieved by a certain Patharpratima closely followed by Basanti (6.66%) ranking 1st and 2nd respectively (Table 2). The home block, Thakurpukur-Maheshtala performs poorly. In fact, it has the least percentage (0.52) of SHGs formed and thereby stands at the end point in the ranking list. This observation sparks up our interest for an enthusiastic and analytic journey as it brings in an element of suspense as in whether this particular block continues its dismal journey throughout or does it throws up some surprising figures later.

(1) The figures in the Grade-1 column clearly shows that the Namkhana block with 97.86 percent of its SHGs clearing Grade-1 leads the pack (rank 1), followed by Patharpratima (94.38 %) and Kakdwip (94.35 %). The home block- Thakurpukur-Maheshtala, positions on the lower end of the rung (rank 25) with



Table 1: Inter-block Analysis of SHG Performance in South 24 Parganas District up to 2011-12

Block	SHGs Formed		No. of SHGs with Savings A/C Linked	SHGs Passed Grade I		No. of SHGs for which RF released	SHGs Passed Grade II		SHGs Pursuing Economic Activities after Passing				Women SHGs formed			Women SHGs Pursuing Economic Activities(Grade II)	
	Number	% to Total SHGs Formed in the District		Number	% to SHGs Formed in the block		Number	% to SHGs Passed Grade I	Number	% to SHGs Passed Grade II	Grade I Test Number	Grade I Test Percent	Grade II Test Number	Grade II Test Percent	Number	% of SHGs Formed in the block	% of SHGs formed in the district
			Number			Percent											
Pukur Maheshkhala	126	0.52	126	53.17	67	23.88	16	23.88	20	29.85	7	43.75	101	80.16	0.52	2	
Judge-Budge-I	295	1.23	295	58.64	173	16.76	29	16.76	96	55.49	24	82.76	235	79.66	1.22	16	
Judge-Budge-II	564	2.34	564	67.02	378	5.03	19	5.03	284	75.13	10	52.63	451	79.96	2.34	3	
Bishnupur-I	511	2.12	511	68.68	351	15.95	56	15.95	216	61.54	22	39.29	410	80.23	2.13	6	
Bishnupur-II	362	1.50	362	85.08	308	24.35	75	24.35	187	60.71	29	38.67	289	79.83	1.50	11	
Sonarpur	266	1.11	266	38.34	102	28.43	29	28.43	33	32.35	0	0.00	213	80.07	1.11	0	
Barajpur	741	3.08	741	82.72	613	13.21	81	13.21	377	61.50	16	19.75	591	79.76	3.07	4	
Bhangore-I	938	3.90	938	59.38	557	27.83	155	27.83	459	82.41	0	0.00	751	80.06	3.90	0	
Bhangore-II	776	3.22	776	51.54	400	3.25	13	3.25	113	28.25	1	7.69	622	80.15	3.23	1	
Falta	707	2.94	707	42.86	303	21.78	66	21.78	139	45.87	6	9.09	566	80.05	2.94	0	
Band-Harbour-I	711	2.95	711	93.25	663	23.98	159	23.98	663	100.00	109	68.55	570	80.17	2.96	59	
Band-Harbour-II	542	2.25	542	68.6	361	29.92	108	29.92	179	49.58	50	46.30	435	80.26	2.26	8	
Magrahat-I	689	2.86	689	77.36	533	17.26	92	17.26	345	64.73	42	45.65	552	80.12	2.87	40	
Magrahat-II	1385	5.67	1385	72.23	986	17.04	168	17.04	521	52.84	72	42.86	1092	80	5.67	30	
Kulpi	1003	4.17	1003	81.85	821	17.66	145	17.66	548	66.75	77	53.10	802	79.96	4.16	24	
Andir bazar	859	3.57	859	71.12	611	2.45	15	2.45	259	42.39	4	26.67	687	79.98	3.57	4	
Canning-I	652	2.71	652	64.57	421	16.86	71	16.86	118	28.03	44	61.97	520	79.75	2.70	22	
Canning-II	683	2.84	683	48.46	331	12.08	40	12.08	197	59.52	13	32.50	548	80.23	2.85	1	
Basanti	1602	6.66	1602	72.66	1164	18.21	212	18.21	462	39.69	166	78.30	1283	80.09	6.66	146	
Grasaba	1518	6.31	1518	80.96	1229	29.54	363	29.54	676	55.00	118	32.51	1214	79.97	6.30	73	
Joy nagar-I	640	2.66	640	66.09	423	7.8	33	7.8	257	60.76	1	3.03	511	79.84	2.65	0	
Joy nagar-II	1003	4.17	1003	78.86	791	11	87	11	492	62.20	61	70.11	802	79.96	4.16	25	
Lathurapur-I	779	3.24	779	84.98	662	6.65	44	6.65	433	65.41	41	93.18	622	79.84	3.23	23	
Lathurapur-II	932	3.87	932	68.88	642	8.57	55	8.57	329	51.25	6	10.91	745	79.93	3.87	2	
Kultali	865	3.59	865	64.62	559	12.88	72	12.88	342	61.18	5	6.94	691	79.88	3.59	0	
Lathurapurama	2099	8.72	2099	94.38	1981	26.85	532	26.85	1087	54.87	31	5.83	1680	80.04	8.72	31	
Kakatiip	974	4.05	974	94.35	919	21.33	196	21.33	615	66.92	12	6.12	779	79.98	4.04	4	
Nankhana	936	3.89	936	97.86	916	27.18	249	27.18	720	78.60	51	20.48	749	80.02	3.89	42	
Sugar	934	3.88	934	78.05	729	31.14	227	31.14	387	53.09	11	4.85	748	80.08	3.88	1	
TOTAL	24072	100.00	24072	74.75	17994	18.93	3407	18.93	10556	58.66	1029	30.20	19259	80	100	578	

Source : District Rural Development Cell, South 24 Parganas District



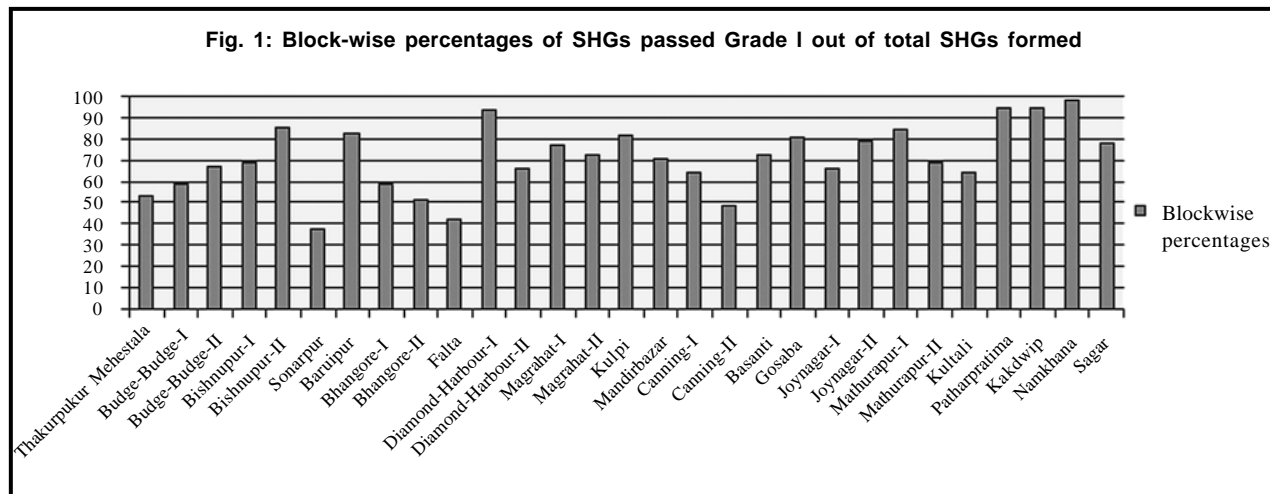
Table 2: Blocks in South 24 Parganas District Ranked by Some Selected Indicators up to 2012

Name of Block	Percentage of SHGs formed		Percentage of SHGs passed Grade I out of total SHGs		Percentage of SHGs passed Grade II out of SHGs who have passed Grade I		Percentage of SHGs pursuing economic activities after passing Grade I		Percentage of SHGs pursuing economic activities after passing Grade II		Percentage of women SHGs formed in the block		Percentage of women SHGs formed in the district		Percentage of women SHGs pursuing economic activities (Grade II)		BORDA		
	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value
Thakurpukur Maheshkhala	0.52	29	53.17	25	23.88	10	29.85	27	43.75	11	80.16	5	0.52	29	1.98	13	149	23	
Budge-Budge-I	1.23	27	58.64	24	16.76	18	55.49	16	82.76	2	79.66	29	1.22	27	6.81	4	147	22	
Budge-Budge-II	2.34	23	67.02	18	5.03	27	75.13	4	52.63	8	79.96	19	2.34	23	0.67	18	140	18	
Bishnupur-I	2.12	25	68.68	17	15.95	19	61.54	10	39.29	13	80.23	2	2.13	25	1.46	16	127	15	
Bishnupur-II	1.50	26	85.08	5	24.35	8	60.71	14	38.67	14	79.83	26	1.50	26	3.81	8	127	15	
Sonarapur	1.11	28	38.34	29	28.43	4	32.35	26	0.00	28	80.07	10	1.11	28	0.00	25	178	28	
Baruipur	3.08	16	82.72	7	13.21	20	61.50	11	19.75	19	79.76	27	3.07	16	0.68	17	133	17	
Bhangore-I	3.90	8	59.38	23	27.83	5	82.41	2	0.00	28	80.06	11	3.90	8	0.00	25	110	12	
Bhangore-II	3.22	15	51.54	26	3.25	28	28.25	28	7.69	22	80.15	6	3.23	15	0.16	23	163	27	
Falta	2.94	18	42.86	28	21.78	11	45.87	23	9.09	21	80.05	12	2.94	18	0.00	25	156	26	
Diamond-Harbour-I	2.95	17	93.25	4	23.98	9	100.00	1	68.55	5	80.17	4	2.96	17	10.35	2	59	1	
Diamond-Harbour-II	2.25	24	66.60	19	29.92	2	49.58	22	46.30	9	80.26	1	2.26	24	1.84	15	116	14	
Magrahat-I	2.86	19	77.36	12	17.26	15	64.73	8	45.65	10	80.12	7	2.87	19	7.25	3	93	8	
Magrahat-II	5.67	4	72.23	14	17.04	16	52.84	20	42.86	12	80.00	15	5.67	4	2.75	12	97	10	
Kulpi	4.17	5	81.85	8	17.66	14	66.75	6	53.10	7	79.96	19	4.16	5	2.99	11	75	5	
Mandirbazar	3.57	13	71.12	15	2.45	29	42.39	24	26.67	17	79.98	16	3.57	13	0.58	19	146	20	
Canning-I	2.71	21	64.57	22	16.86	17	28.03	29	61.97	6	79.75	28	2.70	21	4.23	7	151	25	
Canning-II	2.84	20	48.46	27	12.08	22	59.52	15	32.50	16	80.23	2	2.85	20	0.18	22	144	19	
Basanti	6.66	2	72.66	13	18.21	13	39.69	25	78.30	3	80.09	8	6.66	2	11.38	1	67	3	
Gosaba	6.31	3	80.96	9	29.54	3	55.00	17	32.51	15	79.97	18	6.30	3	6.01	5	73	4	
Joynagar-I	2.66	22	66.09	20	7.80	25	60.76	13	3.03	27	79.84	25	2.65	22	0.00	25	179	29	
Joynagar-II	4.17	5	78.86	10	11.00	23	62.20	9	70.11	4	79.96	19	4.16	5	3.12	10	85	7	
Mathurapur-I	3.24	14	84.98	6	6.65	26	65.41	7	93.18	1	79.84	24	3.23	14	3.70	9	101	11	
Mathurapur-II	3.87	11	68.88	16	8.57	24	51.25	21	10.91	20	79.93	22	3.87	11	0.27	21	146	20	
Kultali	3.59	12	64.62	21	12.88	21	61.78	12	6.94	23	79.88	23	3.59	12	0.00	25	149	23	
Patharpratima	8.72	1	94.38	2	26.85	7	54.87	18	5.83	25	80.04	13	8.72	1	1.85	14	81	6	
Kakdwip	4.05	7	94.35	3	21.33	12	66.92	5	6.12	24	79.98	17	4.04	7	0.51	20	95	9	
Namkhana	3.89	9	97.86	1	27.18	6	78.60	3	20.48	18	80.02	14	3.89	9	5.61	6	66	2	
Sagar	3.88	10	78.05	11	31.14	1	53.09	19	4.85	26	80.08	9	3.88	10	0.13	24	110	12	
TOTAL	100	-	74.75	-	18.93	-	58.66	-	30.20	-	80	-	100	-	3	-	-	-	-

Source: Same as in Table 1.



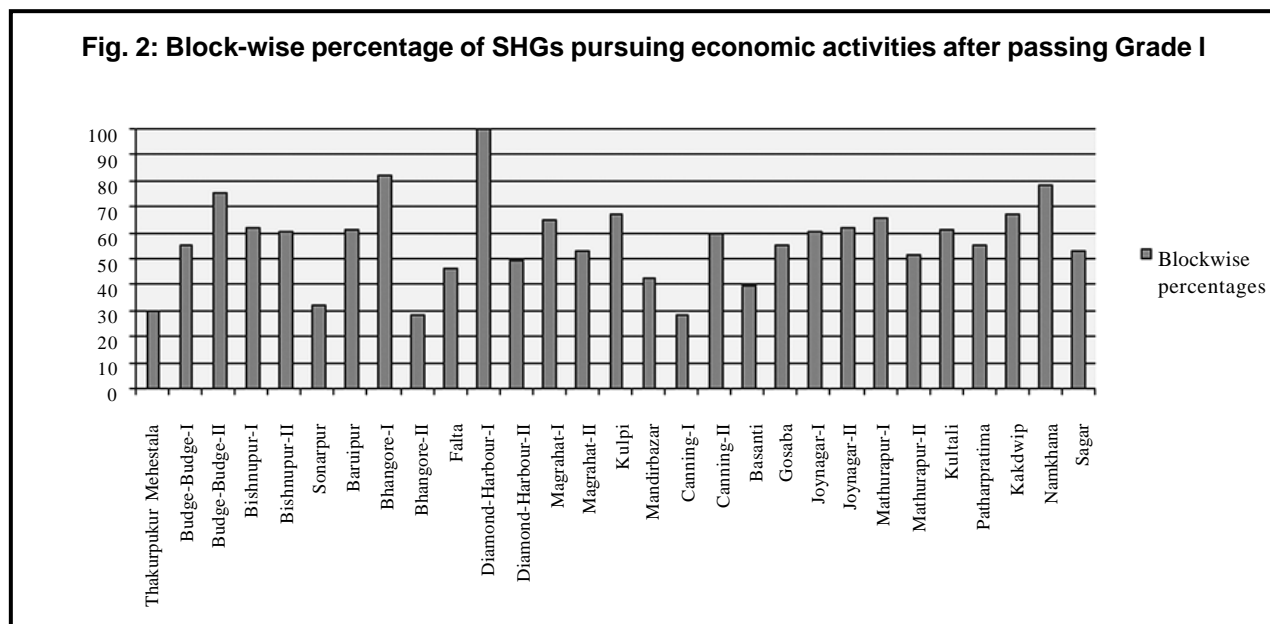
only 53.17 percent of total SHGs emerging out with flying colours. Sonarpur (38.34 %) and Falta (42.86%) put up a dismal show (Fig.1).



Source: Same as in Table 1

At this stage a rewarding gesture shows up from the DRDC's side in the form of each of the successful shgs being opened up a revolving fund account to enhance the interlending process.

(2) Coming to the SHGs taking up economic activities after Grade-1, the block, Diamond Harbour-1, puts up a splendid show with all its SHGs pursuing economic activities after crossing the grade-1 hurdle. Bhangore-1 is another such block that delivers a promising figure of 82.41. For Thakurpukur-Maheshtala,

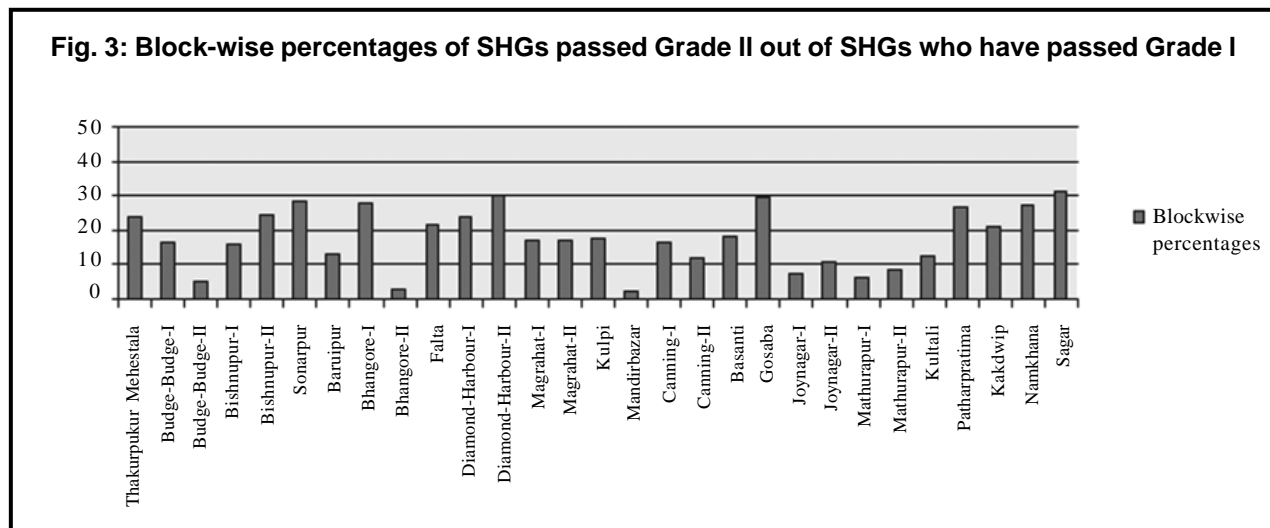


Source: Same as in Table 1



it is the third below average (29.85% compared to the average of 58.66%) performance on the trot now, barring its slightly above average (23.88% compared to the average of 18.93%) performance when we rate it on the basis of SHGs passing grade-2 (Fig. 2).

(3) Passing Grade-2 opens up the gateway for undertaking economic activities and the bank linkages (banks grant loans for undertaking activities and projects on the basis of past performances) come into the play after this step. Clearing Grade-2 is relatively tough and understandably so the pass percentage (number of SHGs clearing grade-2 out of the SHGs that have cleared grade-1) drop down quite steeply. Blocks, Sagar (31.14 pass percentage, rank 1), Diamond harbour-2(29.92 pass percentage, rank-2) along with Thakurpukur-Maheshtala(23.88 pass percentage, rank 10) are some performances worth noticing. Mandirbazar (2.45%, rank 28) and Bhangore-2(3.25%, rank 29) results are disappointing in comparison to the otherwise not so poor average of 18.93 pass percent (Fig. 3).



Source: Same as in Table 1

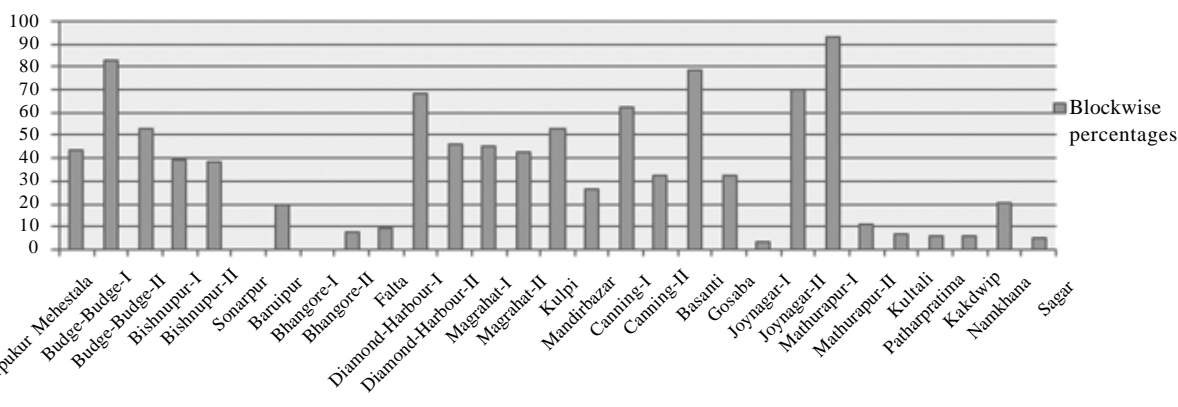
We should at this stage, spare a thought for those SHGs that succumb in the very first grade-1 tests. Few questions keep us bothering here like what is the current status of activities of those mentioned above, are they really engaged in any 'skill up gradation' activity as claimed by the DRDC member in an interview as there was no data furnished in support of the claimant. Do the groups really fail or are they deliberately delayed to progress? There persists an array of doubt. Furthermore, criterion for passing grade-1 calls for pursuing an activity of one's choice and having an option of working on it on an individual capacity which never appeared a problem for the group members as judged from an interview with them. Therefore there is no reason in disbelieving the fact that there may be a shade of casual proceedings involved as far as DRDC is concerned.

Taking up economic activities after passing Grade-2 is no doubt the ultimate stage as far as success is concerned. It really requires a commendable effort to reach this stage. The range of figure, here, is really wide as there is no scope for an average performance considering the collective commitment required to



achieve this feat. Figure ranges from as low as 0 in Sonarpur and Bhangore-1 to 93.2 percent in Mathurapur-1 (rank 1) which shines the brightest here. Percentage figure (43.8) for Thakurpukur-Maheshtala here do not portray the real story as the percentage achieved here is out of just 16 groups that cleared the grade-2 test. The failure rate may be improved here if the provision of, group members allowed to work in an individual capacity on a project that may be a subsidiary part of the broad project that they are going to undertake in future as a group is brought in. Their already acquired present skill would add value to the broad project that they undertake later. This way they would be guarded against working on an alien project at later stages where, in spite of giving 100% they fail to achieve the desired result (Fig.4).

Fig. 4: Block-wise percentages of SHGs pursuing economic activities after passing Grade II



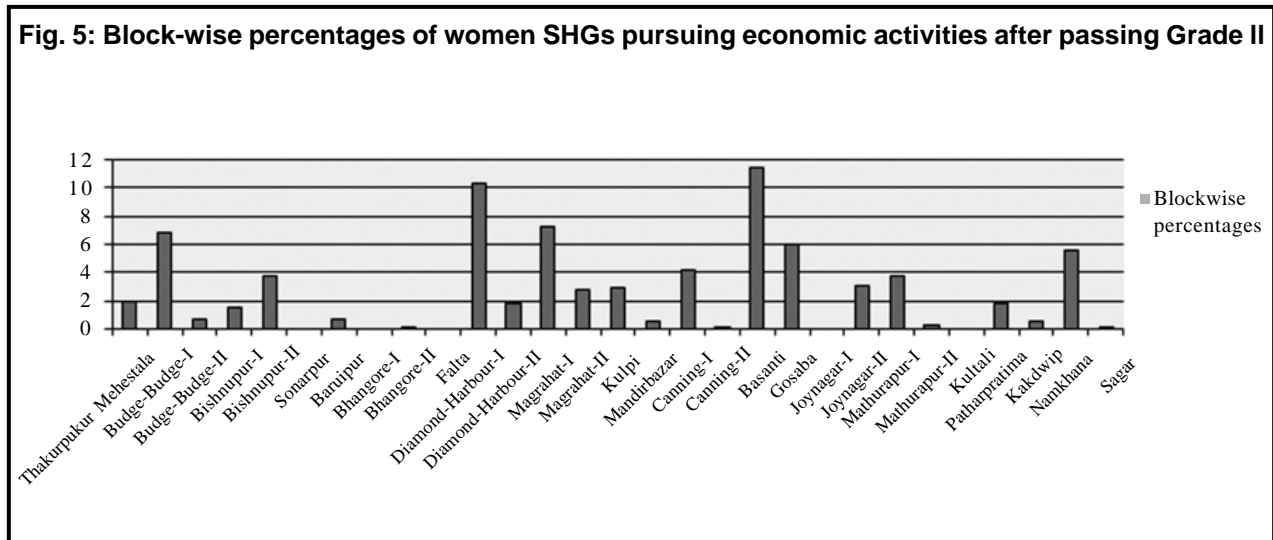
Source: Same as in Table 1

(4) Women SHG formation emerging as an important indicator is no surprise with women empowerment being one of the major objectives of the SGSY. Keeping in sync with this objective, most of the blocks have 80 percent of SHGs dedicated exclusively to women. Here the average is rightfully 80 with the home block securing a 5th rank (80.16%).

There may be an additional dimension to evaluating the performance of blocks with regards to women SHG formation. Here we observe the percentage of SHGs formed in each block to the total number of SHGs formed in the district. The inherent nature of both these indicators is not much different in the sense that they indicate the extent to which a block is pro women. However the former can be captioned a bit more intra block. The figures in this column are proportional to the column where we evaluate the percentage of shg formed in general, almost all the blocks displaying 80% women centric shgs being the obvious reason. Therefore here too Patharpratima (8.72%) firmly fixes itself on the top rung. Basanti (6.66%) comes close second. The home block repeats its disappointing performance (rank 29).



(5) Moving on to the number of women SHGs taking up economic activities indicates Basanti (146) as the only worth mentioning block (Fig. 5).



Source: Same as in Table 1

In order to facilitate a better understanding of the overall performance of the blocks we finally have a ranking based on the cumulative rankings achieved by the blocks in different categories. This is the BORDA rank. The best performer as projected from BORDA rankings is the block of Diamond Harbour-1(rank 1), followed by the Namkhana block (rank 2) and Basanti (rank 3) and so on. There's no positive surprise as apprehended and talked about in the beginning, coming out of the Thakurpukur-Maheshtala block. On the contrary, the home block avalanches down a few steps to the 23rd rank (a study by HDR placed it on the 19th rank in 2009). Joynagar-1 performs the worst (rank 29).

SHG PERFORMANCE IN THAKURPUKUR-MAHESHTALA BLOCK

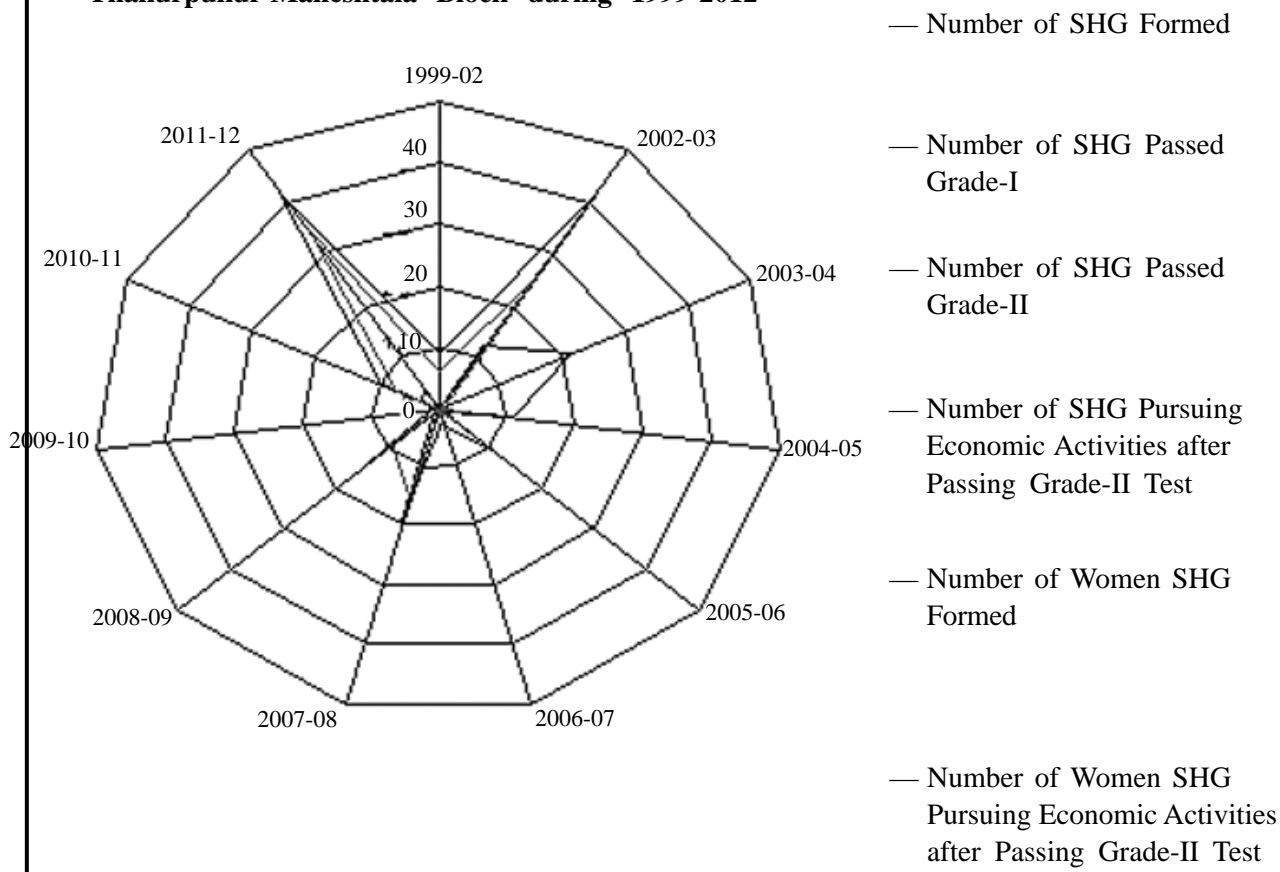
The inter-block analysis clearly designates Thakurpukur-Maheshtala as a below average performer, if not a least performing one. We shift our focus completely onto our home block and for a better understanding of the within-block scenario analyze the inter-temporal performance of SHGs in this block for the period 1999-2012 (Table 4 and Fig 6).

Comparison on the basis of the indicators chosen, fails in tracing out an appropriate path of either growth or downfall over the years. This is evident from the figures in any of the indicators. For example, if we consider the basic indicator of the number of SHGs formed, we can see that the value peaks in the year 2002-03(42), drops in the consequent years to as low as zero in 2005-06, goes on to rise to 19 after two years and then again drastically improves to 42 in the year 2011-12. Similar is the case with the indicators like number of SHGs passing grade-1 and Grade-2. Figures like 12(in 2002-03) to 21(2003-04) to 11(in 2004-05) to 14 (in 2008-09) to 13 (in 2010-11) in grade-1 and zero (in 2003-04) to 11(in 2005-06) to 3(in 2006-07) to zero(in 2011-12) set up an undecipherable trend.



Numbers of SHGs taken up economic activities after Grade-1 and consequently Grade-2 tests over the years are far too less in Thakurpukur-Maheshtala block. So far as the activities pursued after Grade I test are concerned, up to 2008-09 only twenty SHGs figure in the list (since year wise data till 2006-07 were not available) of which sixteen groups have cleared Grade II test and of the latter groups again only seven SHGs (four in 2005-06 and three in 2007-08) have been continuing as micro-enterprises. The deterrent here may be the very nature of proceedings or the norms. The extremely low figures here may be attributed to the provision of pursuing activities in a group capacity after clearing grade-1 and that too having the option of only one or a couple of activities to choose from for each group. The idea here is not that an individual activity is better rewarding or more simplistic. The point here is in providing the members with an option of pursuing their choice of work that do not make them any less effective and at the same time do not derail them from fulfilling the primary objectives with which the group was set up. All that is needed is a bit more flexibility at the penultimate stage.

Fig. 6: Inter-temporal Performance of SHGs in Thakurpukur-Maheshtala Block during 1999-2012



Source : Same as in Table 1



Number of women SHGs formed shows an upliftment (26) in the period 2002-03. The pace slows down considerably to 0.99 in the year 2004 -05(zero) and after a long gap, reaches the pinnacle (34) in the year 2011-12. So again there is no clear cut trend to be observed. The indicator showing percentage of women SHGs taken up economic activities points towards a failure as out of 101 women SHGs formed in an inter-temporal period of over 10 years, the only positive figure and that too a meagre one(2) in this regard is observed once for all in the year 2005-06. Here an effort may be tried at merging the Kishori Shakti Yojana with the SGSY program so that the skills that the adolescent girls take up there may come in handy here while carrying out productive activities. An area of concern here is that there are no data as such regarding what is the real scene before the pursuance of economic activities by women. The journey unfortunately gets no highlight.

SUCCESSFUL SHG'S IN THAKURPUKUR-MAHESHTALA BLOCK: SOME FACTS

At the ultimate stage of our analysis we consider those 7 self help groups in our home block that have been successful in their outing during the period 1999-2012 (Table 3).

SHGs	Date of Formation	Members Categorised By							Total
		Poverty Level		Social Class			Gender		
		BPL	APL	SC	ST	Minority	Male	Female	
1	2	3	4	5	6	7	8	9	10
Amra Kajan Swarogari Dal	24-07-2002	12	0	0	0	0	0	12	12
Lokenath Swarogari Dal	06-10-2002	12	1	13	0	0	0	13	13
Sree Durga Swarogari Dal	17-08-2002	12	0	12	0	0	12	0	12
Ganapati Swarogari Dal	16-08-2002	11	0	11	0	0	11	0	11
Pratap Swarogari Dal	24-06-2002	15	0	0	0	15	14	1	15
Panchanan Swarogari Dal	24-06-2002	12	0	12	0	0	12	0	12
Shanti Swarogari Dal	24-06-2002	12	0	12	0	0	11	1	12

Source: Same as in Table 1

These are Amra Kajan Swarogari Dal, Lokenath Swarogari Dal, Sree Durga Swarogari Dal, Ganapati Swarogari Dal in the year 2005-06 and Pratap Swarogari Dal, Panchanan Swarogari Dal, Shanti Swarogari Dal in the year 2006-07. All these SHGs, it may be mentioned, belong to the Gram Panchayat of Chatta .Interestingly; there is a fair representation of Women- SHGs (two) and Men-SHG (three). The



rest two are Mixed-SHG, where majority are men. Barring Lokenath Swarojgari Dal where 1 out of 13 members belong to the APL households, all the members in other six groups are from BPL households. It is the minority communities that represent the Amra Kajan Swarojgari Dal and Pratap Swarojgari Dal while the other five groups consist exclusively of SC population amounts (1 Lakh in case of Amra Kajan Swarojgari Dal consisting of 12 members and Pratap Swarojgari Dal consisting of 15 members) provided by the DRDC fall short of the maximum limit(Rs. 1.25 lakh or Rs.10 thousand per BPL member ,whichever is smaller) in a number of cases. This problem of admin requires a proper highlighting.

Table 4 renders a vivid picture displaying the relation among the three core units of SGSY in South 24 Parganas district, the DRDC, the SHGs and the bank in question.

Table 4 : Successful SHGs in Thakurpukur-Maheshtala Block : An Account of DRDC-SHG-Bank Linkage up to 2012											
Self Help Groups	Gram Panchayat	Name of Bank ('000 Rs.)	Name of Branch ement	Amount of Subsidy provided DRDC ('000 Rs.)		Advice No. and Date	Name of Project	Loan Amount ('000 Rs.)		Date of Disbursement	Actual Credit ('000 Rs.)
				Sancti- oned	Disbu- -rsed			Sancti- oned	Disbu- -rsed		
Amra Kajan Swarojgari Dal	Chatta	Sagar Gramin Bank	Chatta	100	100	SGB(GR) 02; 11/07/05	Tailoring	250	250	October 05	150
Lokenath Swarojgari Dal	Chatta	Sagar Gramin Bank	Chatta	120	120	SGB(GR) 03; 11/07/05	Tailoring	250	250	October 05	130
Sree Durga Swarojgari Dal	Chatta	Sagar Gramin Bank	Chatta	120	120	SGB(GR) 04; 11/07/05	Tailoring	250	250	October 05	130
Ganapati Swarojgari Dal	Chatta	Sagar Gramin Bank	Chatta	120	120	SGB(GR) 05; 11/07/05	Tailoring	250	250	October 05	130
Pratap Swarojgari Dal	Chatta	Sagar Gramin Bank	Chatta	100	100	SGB(GR) 16; 14/08/06	Tailoring	250	250	March 07	150
Panchanan Swarojgari Dal	Chatta	Sagar Gramin Bank	Chatta	110	110	SGB(GR) 17; 14/08/06	Goatery	250	250	March 07	140
Shanti Swarojgari Dal	Chatta	Sagar	Chatta Gramin Bank	120	120	SGB(GR) 18; 14/08/06	Goatery	250	250	March 07	130

Source : Same as in Table 1



Moving on to bank linkages, it is the Sagar Grameen Bank, Chatta Branch (Village Shibhoogly, P.O- Paschim Rameswarpur 29) where all the accounts of these SHGs have been kept and the loan amounts have been provided after the project proposals of the groups have been sanctioned. 'Tailoring', 'Fishery' and 'Dairy' figure in the list of economic activities being pursued by the groups. Interestingly, provision of submitting more than one project (at most two projects as per the norm), the case we highlighted earlier, has helped a number of groups to shift to second alternative activity after they have lost interest in the first one. Finally, on the basis of primary data in the form of interviews (Appendix 2) with the members of aforesaid SHGs at Chatta Gram Panchayat we make an endeavour to understand the extent to which the successful SHGs have been able to maintain their sustainability. In other words is there any divergence between myth and reality of SGSY, even for the successful ones? Answers lie in the excerpts of the interviews which are furnished below.

Case Study 1: Panchanan Swarajgar Dal

Prankrishna Bhoumik (70 year old) and Babul Adak (40year old) are the operating members of this group. The group was formed in June 2002. All the members here belong to the age group 35-70 years. The members are literate with the exception of only a single member being a class x pass out. Interestingly he is the eldest member and has passed class x in the year as early as 1968. Initially the group started with a saving of just Rs.30 per month i.e. 1 rupee per day. They opened up a savings account on July 2002 with the Sagar Grameen Bank, Chatta branch (Village Shibhoogly, P.O- Paschim Rameswarpur 29).

The group was interested in fishery and pursued training in same. Gradually they passed grade 1 test and a revolving fund of amount of Rs. 5000 was opened up for them. Alongside a cc account was also created. The members eventually improved their skills in fishery that they had already taken training in, in the previous stage. They finally pass grade 2 in 2007 and thereby receive a subsidy amount of Rs. 1.1 lakh from DRDC's side. Besides a loan amount of 1.4 lakh was credited by bank.

An interesting fact that came up was that the group members decided to start a fixed deposit of Rs. 1.5 lakh for a period of 39 months and the remaining 1 lakh was invested in fishery activities. The profit accrued from this venture was used in paying up the interest of the bank. The loan has already been repaid 9 months ago.

Starting from humble beginnings of minor share croppers in the pre SHG period, the group has put a commendable feat in the form of a regular earning of 2000 Rs. in the post SHG period. This group has set up an inspirational example for others to follow.

Source: Interviews taken at Chatta Gram Panchayat, Thakurpukur-Maheshtala Block, April, 2012



Case Study 2: Pratap Swarogari Dal

Bablu Mondal (secretary) and Nijamuddin Laskar (president) are the operating members of this group formed on 24/4/2002. All the 15 members belong to the minority community and BPL. Of them 14 are male and 1 is female. 14 members are either primary or middle passed, 1 is HS passed. All of them belong to age group 30-49 years.

Savings account was opened on July 2002, average monthly savings being Rs. 30 per month. All the members took loan on personal ground and for carrying out small economic activities like tailoring, poultry, fishing etc. They took part in social activities like Sarbo Siksha Abhijan and Pulse Polio Immunization. Passed grade-I test in 2003. After 2-3 months a cash-credit account amounting Rs. 25000 was opened, of which Rs. 10000 was received from the DRDC and the rest was provided by the bank. Individually they drew loan for carrying out economic activities from this account as well. They received skill development training in tailoring.

After passing grade-II they submitted a project budgeting 250000 on tailoring to the bank. In August 2006, Rs.100000 was obtained from DRDC and the remaining 150000 was sanctioned in March 2007 by the bank. Gradually they transformed into a tailoring microenterprise. After repayment of bank loan, each member of this successful group has been earning more than Rs. 2000 per month.

Source: Same as in Case Study 1

Case Study 3: Shanti Swarogari Dal

The Shanti Swarogari Dal came into force in the year 2002, comprises 12 members (11 male and 1 female) and the age of the members range from 40 to 60 years.

Here too we came across 2 members - Kalipada Mondal and Ramprasad Bhoumik acting as representative of their group. 50% of the members, as came out, were illiterate.

A member, class 8 pass out, is the most educated among the lot. Fishery, being their mainstay, its quite obvious they chose it at the skill up gradation stage as well as at later stages. Stories of leasing out ponds from their collective funds and working collectively reaffirm their believe in group activity.

However, at some point, they shifted from fishery to goatery business in expectation of earning higher profits. There cropped up a certain problem. The bank was unwilling to recognise an informal transaction of goat bought and sold and, this provision, forced the swarogaris to transact in the local market, which did not fetch them goats at competitive prices that a certain bigger market did. Thereby they decided to move back to their original business of fish cultivation.

We encountered a certain grievance regarding the group members being cast from their BPL status even before the completion of grade-2.

Source: Same as in Case Study 1



Case Study 4: Ganapati Swarajgar Dal

This all-male (15) SHG was formed on 16.08.2002. All the members, including the operating ones Ashok Kr. Mondal (Secretary) and Pradip Kr. Sarkar (President), are SC hailing from BPL households. Eight of them are Primary/Middle passed, rest have passed Secondary/HS examination(s).

In September 2002, savings account was opened, maintaining average monthly savings Rs.30 per month. Loans were taken on personal grounds as well as for undertaking small economic activities like fishery, tailoring, agricultural work etc. They got acquainted with social activities like Sarbo Siksha Abhijan etc. Cleared Grade-I test in the first half of 2003. Cash-credit a/c was subsequently opened of amount Rs. 25000 of which Rs. 15000 was provided by the bank, rest being given by the DRDC. Loans were taken from this a/c on individual basis for carrying out economic activities like tailoring. Infact they received skill development training as well.

This group successfully completed Grade-II test. After some time they submitted a project on tailoring and applied for a loan amounting Rs. 250000. Project was sanctioned in October 2005. Subsidy of the amount Rs. 120000 was given while the remaining amount came in the form of loan from Sagar Gramin Bank. Interestingly this group finally switched over to a fishery related project and became a successful microenterprise. Individually they earn much higher than Rs. 2000/month.

Source: Same as in Case Study 1

Case Study 5: Lokenath Swarajgar Dal

This is an all-female (13) group of which majority (12) belonged to BPL household at the time of group formation. All the members are SC and are in the age group 30-49 years. Bhabani Baidya (Secretary) and Bula Pramanik (President) are the operating members. Ten of the members are primary or middle passed. Three members who were illiterate in the beginning gradually attained literacy by taking part in social activities like Sarbo Siksha Abhijan.

Savings a/c was opened in July 2002 with a sum of Rs. 390. Loans were taken on a regular basis on both personal and for carrying out small economic activities like poultry, dairy, tailoring etc. Grade-I test was cleared in the first half of 2003. Cash-credit a/c amounting Rs. 25000 was opened after few months. The bank contributed Rs. 15000 and Rs. 10000 was obtained as revolving fund from the DRDC. Individual loans were drawn from this a/c as well mainly for undertaking economic activities. Received skill development training in tailoring.

Applied for a loan (amounting Rs. 250000) on a project on tailoring after passing Grade-II test. The loan was sanctioned in October 2005. Subsidy of amount Rs. 120000 came from DRDC and the rest was provided by the bank in the form of loan. This group has repaid all their loans and become a successful microenterprise in tailoring earning much higher than Rs. 2000/ month.

Source: Same as in Case Study 1



Case Study 6: Amra Kajan Swarogari Dal

This is an all female (12) Self Help Group. This group was formed in July 2002. All the members are from minority community and they initially belonged to BPL households. Mansura Seikh (Secretary) and Samira Khan (President) are the two operating members. All the members belong to the 30-49 years age group. Of them 8 are primary or middle passed. Four have become literate, courtesy to their participation in Sarbo Siksha Abhijan.

Savings a/c was opened in August 2002. Loans were taken at regular interval on both personal and for carrying out small economic activities in tailoring and poultry. Average monthly savings of the members was Rs. 30 per month in the beginning. Grade-I test was cleared in the first half of 2003 and subsequently cash-credit a/c of Rs. 25000 was opened. Rs. 10000 was received as revolving fund from DRDC and Rs. 15000 was obtained from bank. Individual loans for undertaking economic activities in tailoring mainly were taken from this a/c. Members received skill development training in tailoring.

After clearing Grade-II test, they applied for bank loan amounting Rs. 250000 for undertaking a project on tailoring. The project was sanctioned in October 2005. The group received a subsidy of Rs. 100000 from the DRDC and the remaining amount came as bank loan. Unfortunately however the group has repaid only partially. And though they have been carrying out projects on tailoring individually, they have failed to form a microenterprise. Half of the group members individually earn Rs. 2000/month while the rest ends up getting around Rs. 1000 individually.

Source: Same as in Case Study 1

Case Study 7: Sree Durga Swarogari Dal

This is an all-male (12) SHG, all members are SCs and they hailed from BPL households in the beginning. This group was formed in August 2002. Prashanto Mondal (secretary) and Tushar Mondal (president) are the two operating members. All the members are primary / middle passed and belong to the age group 30-49 years.

Savings a/c was opened in September 2002. Members took loans on personal as well as for undertaking small economic activities like fishery, dairy, poultry, tailoring etc. They took part in social activities like Sarbo Siksha Abhijan and Pulse Polio Immunization. Received basic orientation programme as well. Passed Grade-I test in the first half of 2003. Subsequently cash-credit a/c of amount Rs.25000 was opened of which revolving fund of amount Rs. 10000 came from DRDC. Members drew loans from this a/c as well for carrying out economic activities in tailoring. They also received training in tailoring.

Grade-II test was cleared in 2004. They applied for a loan amounting Rs. 250000. The project was sanctioned in October 2005. They received subsidy amounting Rs. 120000 from the DRDC and the remaining amount came in the form of loan from bank.

They have not been able to repay the loan yet. To make the matter worse even the subsidy amount has not been utilized properly. Individually however, a number of group members have taken loan from the cash-credit a/c and have been pursuing projects on tailoring and fishing. Four members have been able to earn more than Rs. 2000 per month while 8 members are still left out in this regard.

Source: Same as in Case Study 1



Thus, of all the end results, the one that stands out is that, majority of the groups seem to have already swummed through the toughest tide in their lives. Sometimes crossing the initial hurdle becomes the biggest stumbling block in the journey, and when crossed, the journey seems smoother. It was quite a moment hearing them, how their lives have actually changed, they have started earning around Rs. 2000 monthly. They have started living independently, their business had shifted gear, that it may crawl down too cannot be ruled out and it is quite probable that they may peak up again. But the frustration of all this rise and fall does not amount to anything when we compare this to the point in the life of these swarajgaris when they did not had any option at all, they did not knew where to start, what to do, how to escape the vicious circle of this bane of poverty- a state for which they have done no fault to be in. SGSY in this context has been a sheer blessing.

SUMMARY, POLICY IMPLICATIONS AND CONCLUSION

Brilliant would be a strong word, but SGSY really have had a great role in laying the foundation bricks for a hopefully brighter future of micro enterprises formed by the SHG members. With majority of the SHGs comprising female members we can safely say that women have finally found an opportunity where they can call the shots, not to take away any credit from SGSY in empowering marginalized male.

But is the picture really all that rosy? The answer, sadly, is no.

For example, without going too far, if we take up our research figures in the block Thakurpukur-Maheshtala, merely 7 SHGs could set up micro enterprises in the long run. The result is more pessimistic because quite a large number of them had done economic activities at the preliminary stages. 7 successful ventures out of 126 groups that started the journey speak volumes about the reality of the program. Also the interviews taken at the Chatta Gram Panchayat clearly indicates that of the 7 SHGs, 5 have been working smoothly, one has been still struggling to maintain its sustenance while the last one seems to be lost in the mid-way even with a sanctioned project. The real scene is thus far from what is being projected. Therefore calling the success story a myth would not be an understatement.

The endeavour gets far more weightage than the results, method is more important than outcomes. This is where the SGSY program needs thumbs up. Our research findings show a fair representation of the BPL households, male-female in the groups.

Now as we move on to consider the work of DRDC, the main supervisors of this enchanting venture, their effort is not disappointing but at the same time, it cannot be by any means termed excellent. The generous subsidy allotments from their side do not support their on paper announcements. DRDC that owes Rs. 1.2 lakhs as a maximum subsidy (considering a 12 member group), never really obliges. From what we see and analyse on paper, it would not be wrong to say that a far more serious effort from the side of DRDC could produce satisfying results.

Throwing light on some other facets, we conceive policy implications like expanding the horizon of options of economic activities for the groups after they pass the preliminary stage. All individuals do not have equal proficiency and for that matter, flair for a unique activity. Therefore a miserly allocation of only a single or in few cases a couple of activities for the successful members may be a cause of groups failing to gel at later stages. Individuals pursuing activities of their own choice sounds more substance.

We also want to focus on a certain aspect that has gone missing in this whole extravaganza about how to conceive more SHGs and how to revolutionize the micro finance industry. The Kishori Shakti Yojana



(KSY) program that was launched to empower teenage girl child through training them in different productive activities may well be thought of while deciding on pursuance of economic activities after Grade-1 or at a later stage. This way, the training would be of some use and at the same time the SGSY program would save on training individuals on activities that do not support their frame of mind or heart.

Moving on, banks play a major role of the trio of SHG-DRDC-banks that shape and form the basis of the existence of SGSY program. The critical relation between these 3 is the reason the endeavour moves on. Banks do the seemingly minute cameo of granting loan and recovering it but in reality it forms the vital support system of any successful SHG. Banks risk their funds on enterprises that are not always commercially viable. They bear the social responsibility even when most of their operational ventures are commercial in nature. However a subtle critic that evolves in our findings is that a little more trust from their side and speeding up their process of evaluation may do a whole lot of good to the pace at which micro enterprises are mushrooming.

What is however fulfilling is the participation of the marginalised group in the much celebrated catch phrase "inclusive growth" that caught the imagination of the entire nation lately. Growth being a long run process, a start in the sense five of the groups through to the finishing line cannot be ignored at all. Statistically, it is not a good number to go with but then is it always good to go with statistics because, the process of inclusive growth is not an end in itself but a means to spread the gains of prosperity to all sections of population especially the "have nots". Thus, there is still light at the end of the tunnel as the successful SHGs could well assist the other less fortunate fellow groups in their humble venture and hopefully make something out of it.

ACKNOWLEDGEMENT

The authors would like to express their gratitude to the DRDC and in particular to Subrata Dhara, District Resource Person, South 24 Parganas District for providing them with the necessary official data for their work.



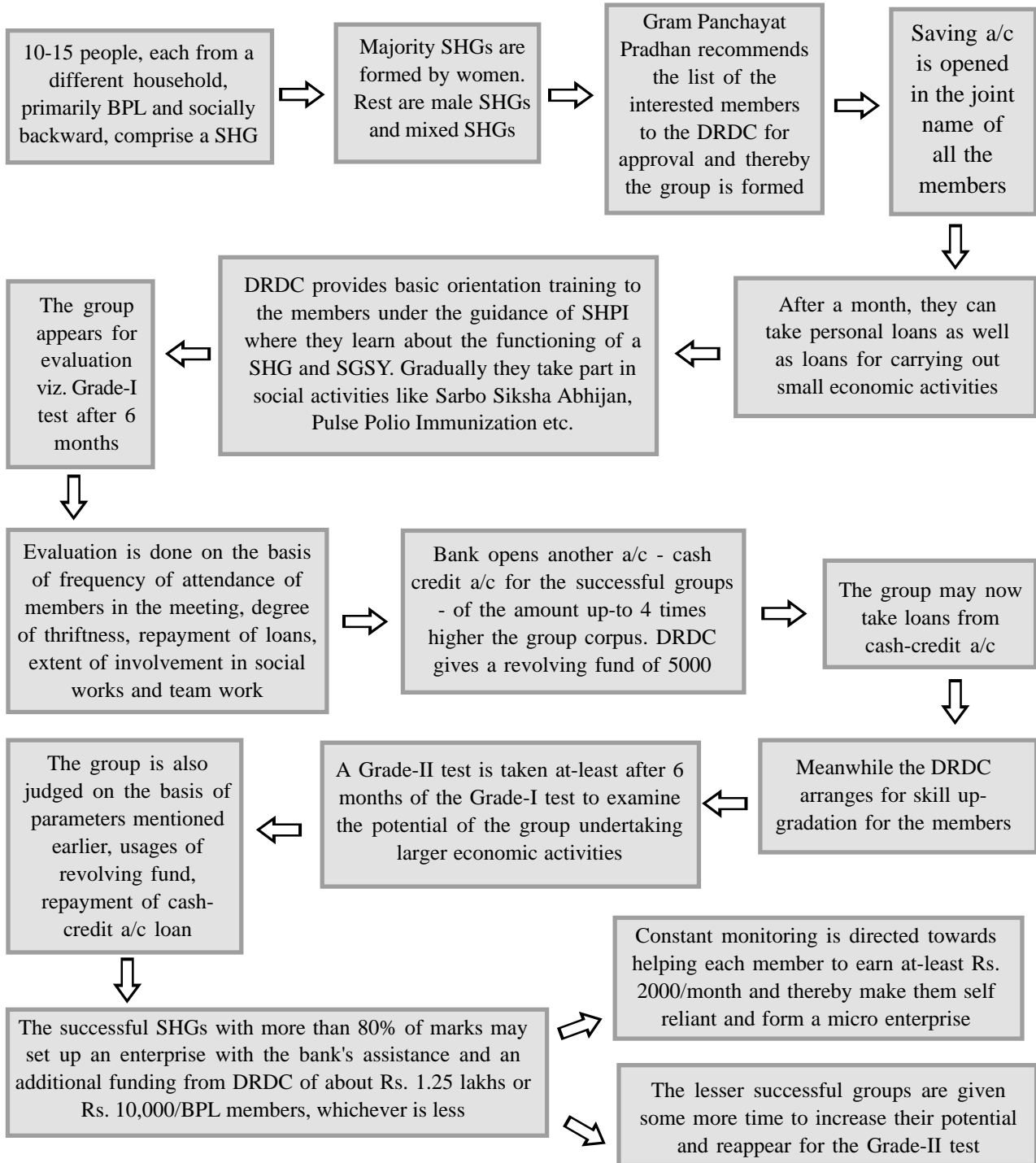
- ⁱ With formal sources often out of reach, on the one hand, and informal credit too costly, on the other, there seems to have been a natural growth of the microfinance (MF) sector—initially of SHG-bank linkages of non-profit variety, but more recently of the for-profit NBFC-MFI segment. Although a lot of fanfare arose over the steep growth of the latter segment of MFIs, soon the wild enthusiasm turned out to be a matter of serious concern when in October 2010 the AP government promulgated an emergency step to severely restrict the alleged mal-practices and coercive operations of NBFC-MFIs". For a detailed study of Microfinance see (Dutta, 2012).
- ⁱⁱ Economic Survey 2009-10, introduced the idea of Inclusive growth and emphasized the role of enabling state for achieving such growth
- ⁱⁱⁱ Another development in this front is Kudumbashree programme in Kerala.
- ^{iv} See Partha Das Gupta (2001) for an understanding of BORDA ranking.
- ^v See Human Development Report, South 24 Parganas for an elaborate discussion in this regard.

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APPENDIX 1: JOURNEY OF AN SHG SINCE INCEPTION TILL ITS BECOMING A MICRO-ENTERPRISE





APPENDIX 2: QUESTIONNAIRE ON JOURNEY OF AN SHG SINCE INCEPTION TILL ITS BECOMING A MICRO-ENTERPRISE

1. Name of SHG: _____
2. Date of formation: 3. Formed by:
4. Total number of members: BPL APL
 Caste SC/ST OBC General Minority
 Gender Male Female
5. Name of the operating member(s) _____
- 6A. Educational status of members at the time of formation of group:

Level of Education	Illiterate	Literate			
		Without Formal Education	Primary/Middle	Secondary/Higher Secondary	Graduate and above
Number of Members	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- 6B. Age group of the members in a SHG

Age group	18-29	30-59	60+	All
No. of Members	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

7. Date of saving a/c opening:
8. Average monthly saving of the members in Rs.:
9. No. of members taken loans after opening savings a/c
10. Reasons behind taking loans: Personal Carrying out small economic activities
11. Type of Social activity group members have taken part:
 Sarbo Siksha Abhiyan Pulse Polio Immunization Others (Specify)
12. Did the members undergo with basic orientation programme? Yes No
13. Date of Grade-I test Did the group pass? Yes No
14. Date of opening cash-credit a/c
15. Did they receive Revolving Fund? Yes No Amount of RF in Rs.



Appendix 2 continued...

16. Did they take any loan from cash-credit a/c? Yes No
Purpose of taking loan: Carrying out economic activity Other (specify)
No. of members taking loan
17. Did they receive skill development training? Yes No
18. Type of skill development training received (specify):
19. Date of Grade-II test
Did the group pass Yes No
20. Type of support received from DRDC to the non-successful groups. Specify
21. Name of the SHG clearing the Grade-II test
22. Date of submitting project to a bank
Bank Name
Project Name
Amount of loan applied for
23. Date of sanctioning the project
Amount sanctioned in Rs.
24. Date of receiving additional funding by the DRDC
Amount of fund
25. Did the group receive training from DRDC about the procedure of loan-repayment
26. Has each member of the successful group been able to earn at least Rs. 2000/month
Yes No
No. of members still left out in this regard
27. Has the Grade-II clearing group been able to form a microenterprise? Yes No
28. If No, mention the reasons
If Yes, name of enterprise
29. Has the group been able to repay the loan Yes No
30. How has life changed after joining the group (Specify)



SUSTAINABLE DEVELOPMENT: THE PILLAR AND FOUNDATION OF INCLUSIVE GROWTH

Aditi Samadder*

The study of economic development is one of the newest, most exciting and most challenging branches of the broader disciplines of economics. There are different views about the nature of development economics. Regardless, we can always refer to development economics as a distinct branch of economics from the traditional economics of the advanced capitalist nations and the formerly centralized socialist societies. Development economics has an even greater scope. In addition to being concerned with the efficient allocation of existing scarce productive resources and with their sustained growth over time, it must also deal with the economic, social, political, and institutional mechanisms, both public and private, necessary to bring about rapid and large scale improvements in levels of living of people residing in 'LDCs'. Having defined the nature and scope of development economics, we maneuver it to be convenient to the topic of our discussion. Inclusive growth refers to the overall development or the growth procedure that not only ascertains a high rate of GDP, high production levels and a better standard of living, but also, a better environment for the sustained growth of the present as well as the coming future generations.ⁱⁱ

As per Todaro and smith, "Sustainable development is the only path or foundation that can be laid to build up the pillars of inclusive growth which is a multidimensional process involving major changes in social structures, popular attitudes, and national institutions as well as the acceleration of economic growth, the reduction of inequality and eradication of poverty". Inclusive growth, in its essence, must represent the whole gamut of change by which an entire social system, tuned to the diverse basic needs individuals and social groups within that system, moves away from a condition of life widely perceived as unsatisfactory toward a situation or condition of life widely regarded as materially and spiritually better.

Sustainable development is a road map, the action plan, for achieving sustainability in any activity that uses resources and where immediate and intergenerational replication is demanded. Therefore it is of utmost importance to accrue this term as the only foundation for present growth and also a sustained growth over the coming years, i.e., inclusive growth of an economy.

Hence I intend to focus my work on the need of sustainable development as a foundation of inclusive growth, how this growth is related to the environment, how environmental accounting helps us to ascertain the amount and ill effects of environmental fallacies, the domains covered by sustainable development, poverty in relation with the environment and the perspective of sustainability in the Indian economy. The next section deals with the domains of sustainability and their collaborations on an economy. Section 3 explains how the present study rests on the functioning of sustainable development as foundation of the overall inclusive growth for an economy. Inclusive growth mediated sustainable development is what every economy pursues and hence it needs special attention. Section 4 spells out the positive toll of inclusive sustainability on environment. Section 5 moves on to discuss the effects of poverty on environment and how it is mitigated through sustainable development to achieve inclusive growth. Next, Indian perspective to this effect is analyzed in section 6. The final section provides some policy implications and concludes.

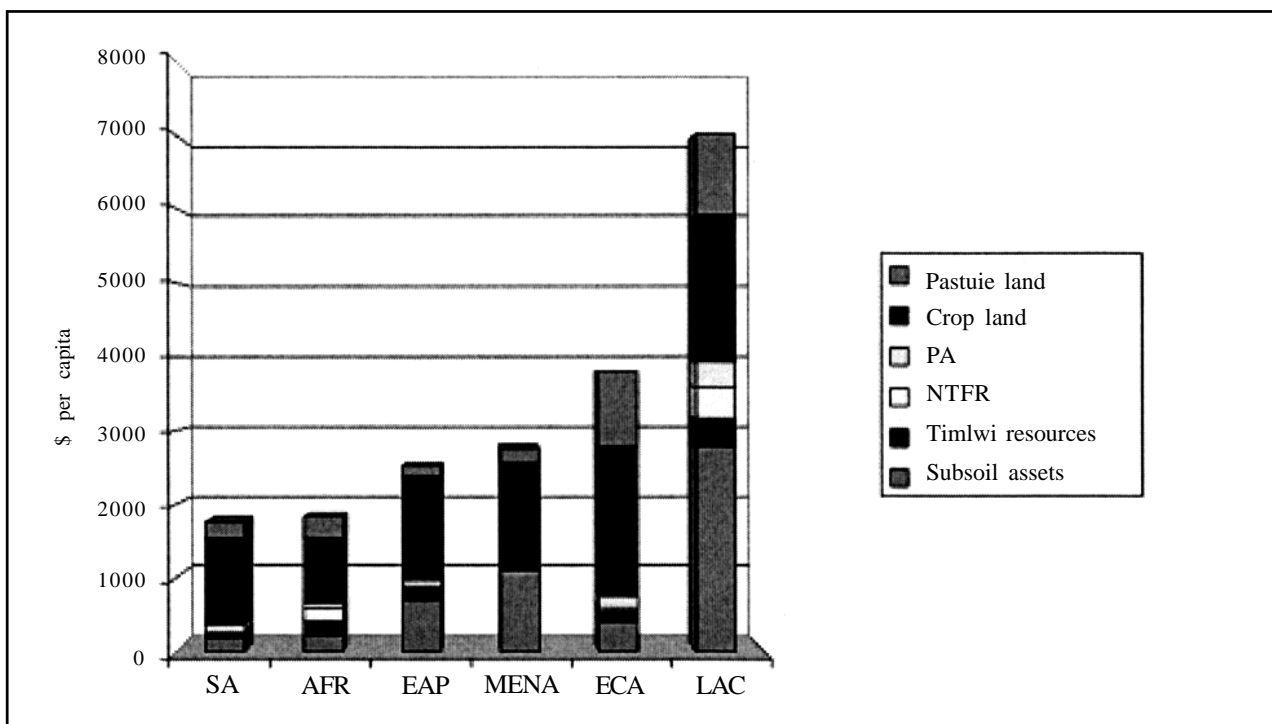
* Student, Dept of Economics, Vivekananda College, Thakurpukur, Kolkata-70063



DEFINITION AND DOMAINS

Sustainable development is a process that envisions a desirable future state for human societies in which living conditions and resource use continue to meet human needs without undermining the integrity, stability and beauty of natural biotic systems (Fig. 1). The United Nations World Commission on Environment and Development in its 1987 report, 'Our Common Future' defines sustainable development as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

Fig. 1: Natural Capital Composition by Region, 2000



Source: <https://in.images.search.yahoo.com/search/images>

Different domains have been identified for research and analysis of sustainable development. Broadly defined under Ecology, Economics, Politics and Culture as used by the United Nations and a number of other international organizations (Fig. 2).

Ecology: The ecological sustainability of human settlements is part of the relationship between humans and their natural, social and built environments. Also, termed as human ecology, this broadens the focus of sustainable development to include the domain of human health.

Economics: It has been suggested that because of rural poverty and over exploitation, environmental resources should be treated as important economic assets, called natural capital. Sustainable development may involve improvements in the quality of life for many but may necessitate a decrease in resource

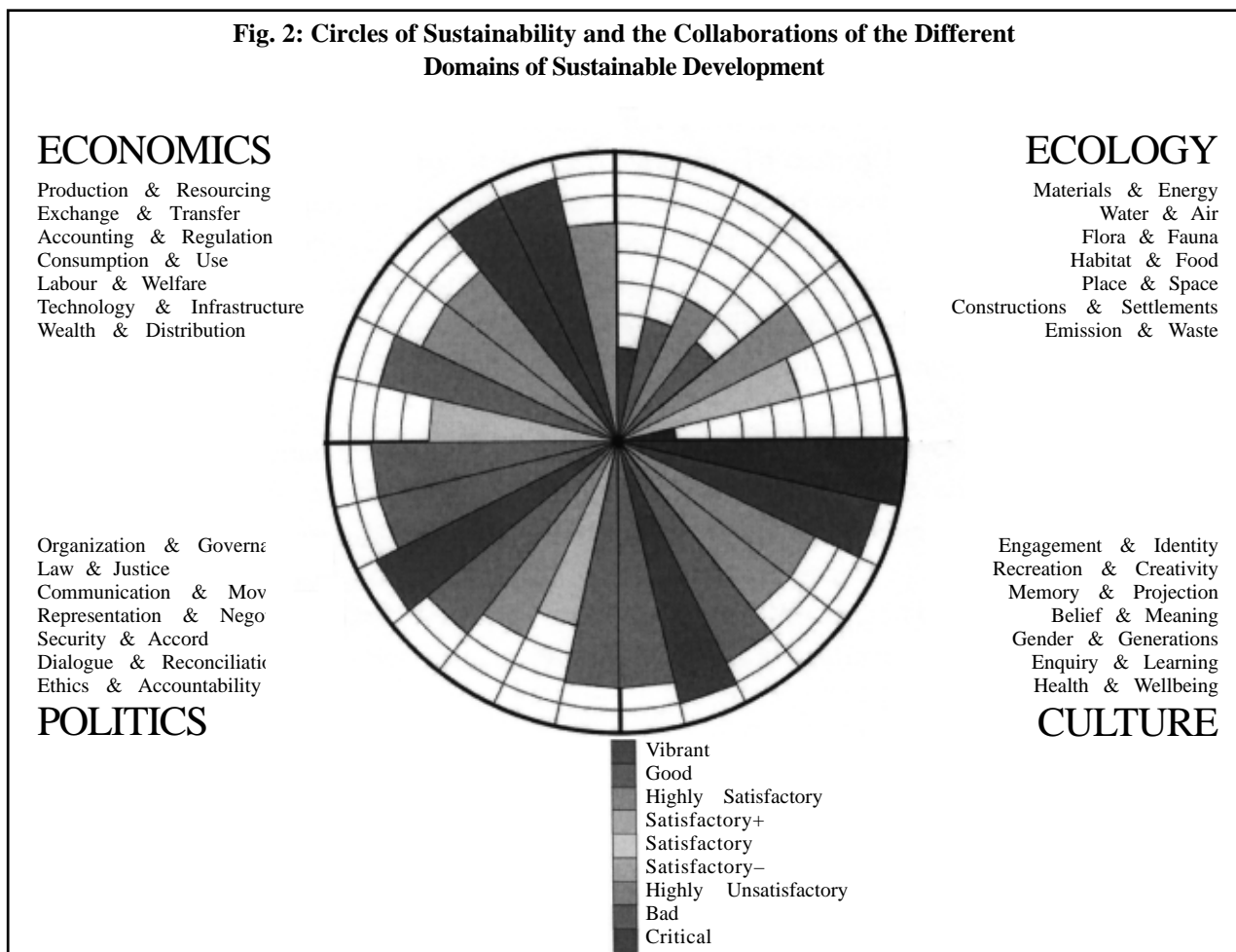


consumption.ⁱⁱⁱ According to John Bader "the improvement of environment quality depends on the market economy and the existence of legitimate and protected property rights".

Culture: Working with a different emphasis, some researchers and institutions have pointed out that a fourth dimension should be added to the dimensions of sustainable development. In this context, the Agenda 21 for culture and the United cities and Local Governments (UCLG) Executive Bureau lead the preparation of the policy statement "Culture: Fourth Pillar of Sustainable Development", passed on 17th November 2010, in the framework of the World Summit of Local and Regional Leaders 3rd World Congress of ULGC, held in Mexico city although some argue that economics is primary, and culture and politics, should be included in 'the social'. This document inaugurates a new perspective and points to the relation between culture and sustainable development through a dual approach: developing a solid cultural policy and advocating a cultural dimension in all public policies.

Politics: The framework consists of six core areas, international trade and investment, economic policy, climate change and energy, measurement and assessment, natural resource management and the role of communication technologies in sustainable development.

Fig. 2: Circles of Sustainability and the Collaborations of the Different Domains of Sustainable Development



Source: http://en.wikipedia.org/wiki/Sustainable_development



THE NEED OF SUSTAINABLE DEVELOPMENT AS A STRONG BASE FOR INCLUSIVE GROWTH

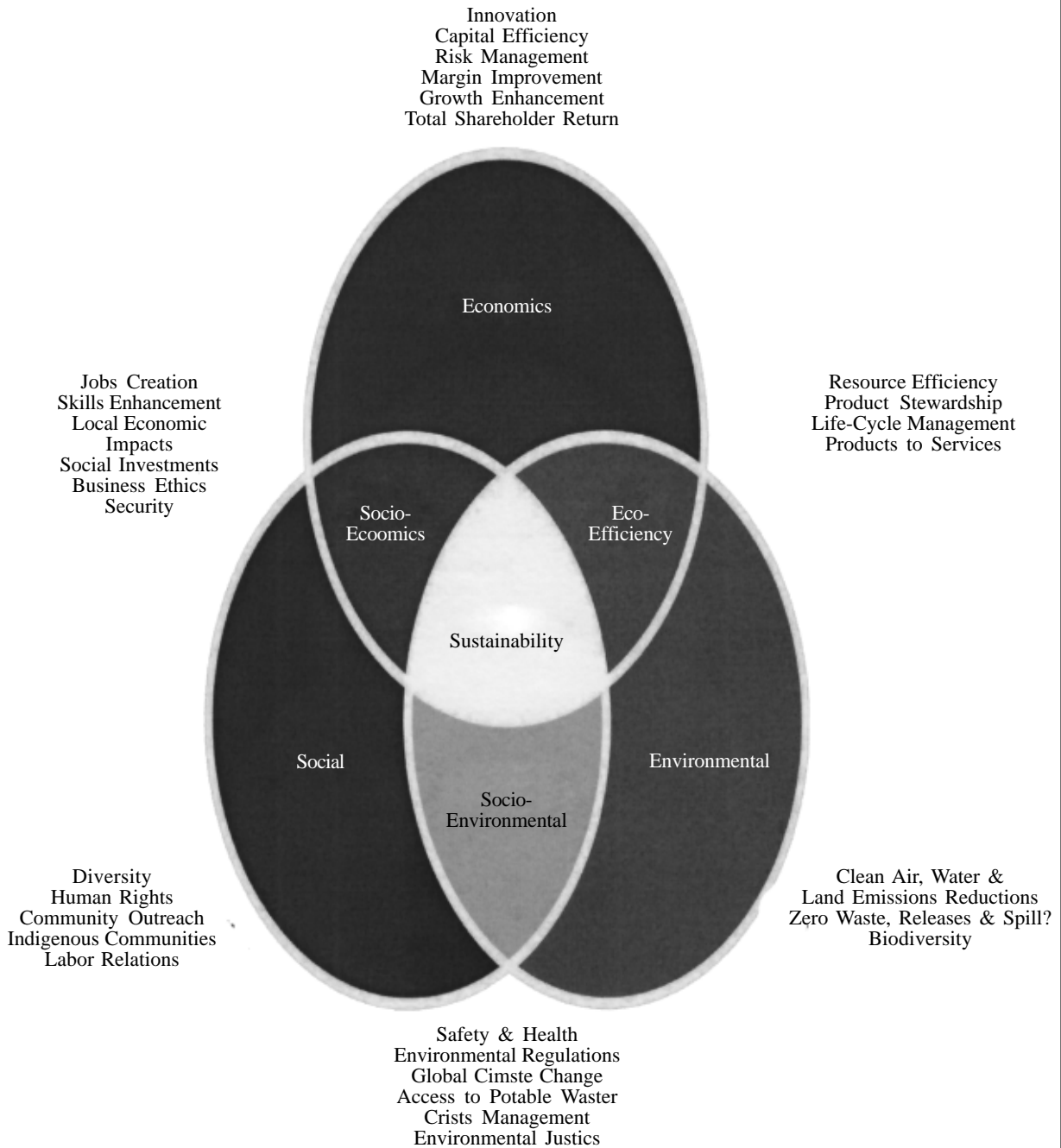
The term sustainability reflects the need for careful balance between economic growth and environmental preservation. But in this regard, natural resources and other forms of capital are substitutes only at a limited scale and to a limited degree. Rather, after the environment has been degraded to some extent, natural resources and other forms of capital likely act as complements. Manufactured capital is generally unproductive without a minimum of available environment services. While future technological fixes maybe imagined, there is certainly no guarantee that they emerge. Hence to have a sound economy which is dynamic and flourishing, sustainable development is utmost important (Fig. 3).

Implicit in these statements is the fact that future growth and overall quality of life are critically dependent on the quality of the environment. To destroy the natural endowments indiscriminately in the pursuit of short-term economic goals penalizes both present and especially, future generations. It is therefore important that development policy makers incorporate some form of environmental accounting into their decisions. We now understand that the interaction between poverty and environmental degradation can lead to a self-perpetuating process in which, as a result of ignorance or economic necessity, communities may inadvertently destroy or exhaust the resources on which they depend for survival. Rising pressures on environmental resources in developing countries can have severe consequences for self-sufficiency, income distribution, and future growth potential. The poorest 20% of the population (be it in rural or urban) would experience the ills of environmental degradation most acutely. Severe environmental degradation, due to population pressures on marginal land, has led to falling farm productivity and per capita food production. Since the cultivation of marginal land is largely the domain of lower-income groups, the losses are suffered by those who can least afford them.

Because the solutions to these and many other environmental problems involve enhancing the productivity of resources and improving living conditions among the poor, achieving environmentally sustainable growth is synonymous with our definition of economic development.



Fig. 3: Sustainability in Maintaining Inclusive Growth



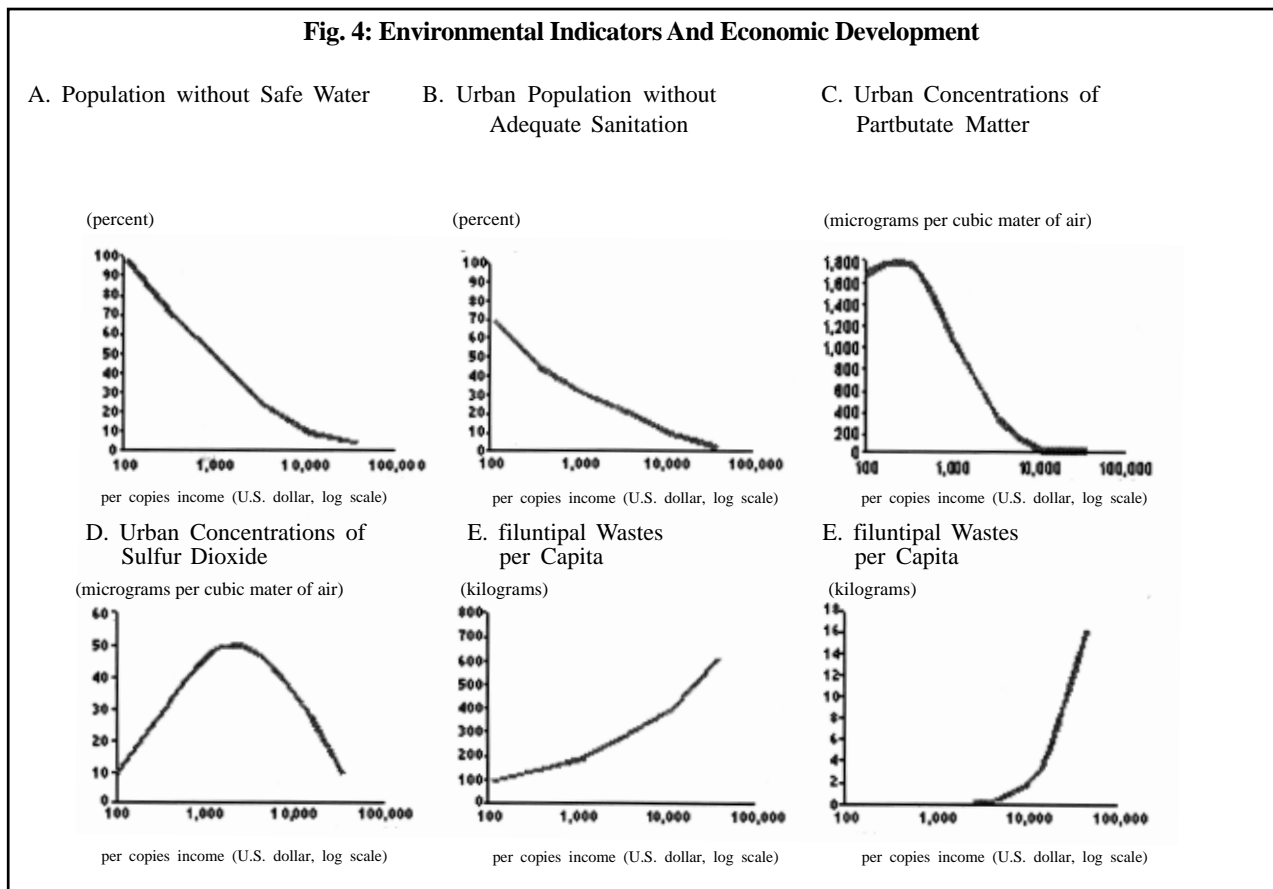
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SUSTAINABILITY AND ENVIRONMENT

The environment is vital to supporting life, absorbing waste and providing inputs for production. Over the last three decades, there has been increasing concern about the effects of economic activity on the environment. In particular it has been argued that economic growth has caused serious environmental damage and that the current state of the environment will constrain future economic development. The poor in developing countries are often dependent on the natural environment for their livelihood, and even their continued existence. Thus damage to the environment and the relationship between the environment and the economy are often thought to be of more importance to developing than to developed nations.

Fig. 4: Environmental Indicators And Economic Development



Source: <https://in.images.search.yahoo.com/search/images>



Fig. 4 drawn from the World Development Report (World Bank, 1992), shows how selected environmental indicators vary with economic development, as measured by per capita income (Thirlwall, 1999). Sustainable Development is held as a response to the concern that present pattern of economic growth may seriously degrade the environment and maybe unsustainable, as the environment cannot support economic growth forever. This proposition may or may not be substantially true. At the heart of the view, lies, the fact that past and present economic policies have usually been concerned with providing the conditions of equilibrium economic growth, as measured by standard national accounting methods. Many environmentalists are concerned that these policies have not attempted to ensure 'the existence of ecological conditions necessary to support human life at specified level of well-being through future generations. Hence, this condition calls for sustainable development as the only pathway for inclusive growth.

Environmental Accounting

Growth that relies on running down the natural environments contrasted with sustainable development, which preserves the ecology on which future income and people's health vitally depend. If an environmental resource is damaged or depleted in one area, a resource of equal value should be regenerated elsewhere, David Pearce and Jeremy Warford (Todaro and Smith, 2013) provide a good example of environmental accounting, i.e., of measuring the above said contrast.^{iv} By this definition, sustainable development requires that these overall capital assets not be decreasing and that the correct measure of sustainable net national income (NNI*) is the amount that can be consumed without diminishing the capital stock. Symbolically,

$$NNI^* = GNI - D_m - D_n - R - A$$

Where **NNI*** is sustainable national income, **D_n** is the depreciation of environmental capital- the monetary value of environmental decay over the course of a year, **D_m** is the depreciation of manufactured capital assets, **R** is the expenditure required to restore environmental capital (forests, etc), and **A** is expenditure required to avert destruction of environmental capital (air pollution, water and soil quality, etc). Through the sustainable national income we can measure and avoid the ill consequences of environmental fallacies or decay and can rejuvenate the growth as an overall growth and not just a growth of numbers. This inclusive growth is attainable but is a tedious process at the same time.

POVERTY AND THE ENVIRONMENT

As Amartya Sen^v have argued 'growth mediated' development supplemented through social protection policies have led to improved human well-being with trends such as increase in life expectancy, reduction in the undernourished population and the importance in the number of people having access to basic health services and education. Too often, however, high fertility is blamed for problems that are attributable to poverty itself.^{vi} For environmental policies to succeed in developing countries, they must first address the issues of landlessness, poverty, and lack of access to institutional resources. Insecure land tenure rights, lack of credit and inputs, and absence of information often prevent the poor from making resource augmenting investments that would help preserve the environmental assets from which they derive their livelihood. Hence preventing environmental degradation is more often a matter of providing institutional support to the poor than fighting an inevitable process of decay.



THE INDIAN PERSPECTIVE

India has entered 13th plan period with an impressive record of economic growth with an average GDP growth 8.7%. Indicators of human development such as literacy and education and maternal and infant mortality rates, show steady improvements, but they also suggest that the progress is slow and we continue to lag behind several other Asian countries.^{vii} Natural resources such as water and land are limited and their per capita availability is actually diminishing because of raising population and also because of rising population and also because of irrational exploitation of common pool resources. Unless environment protection is brought to the center stage of policy formulation, what is perceived as development may actually lead to a deteriorating quality of life. This seems to be happening all round, in the poor and generally worsening quality of air in cities and even villages; in the loss of biodiversity and in the shrinking habitats of natural resources reduces the well-being of people, especially the poor, as they depend much more on natural common property resources and have fewer resources to take defensive actions. The danger to environment is caused by activities worldwide.^{viii}

CONCLUSION

Inclusive growth is a concept which advances equitable opportunities for economic participants during the process of economic growth with benefits incurred by every section of society. Sustainable economic growth requires inclusive growth. Maintaining, this is sometimes difficult because negative externalities such as rise in corruption, which is a major problem in developing nations. Nonetheless, an emphasis on inclusiveness especially, on equity or opportunity in terms of access to markets, resources and unbiased regulatory environment for businesses and individuals is an essential ingredient of successful growth strategies. The inclusive growth approach takes a longer-term perspective, as the focus is on productive employment as a means of increasing the incomes of poor and excluded groups and raising their standards of living. Nicholas Georgescu-Roegen^{ix} argued that economic processes involve not only quantitative changes but also qualitative transformations which are difficult to incorporate in traditional models of economic growth and development. We must certainly begin to consider what steps we need to take to adapt to these changes and to mitigate the damage to climate. However, an effective strategy requires international co-operation to evolve forms of burden sharing for mitigation as well as adaptation that are fair and equitable across nations. We have to address to these challenges in the years ahead.

ACKNOWLEDGEMENT

The author feels that this work would not have been possible without the active guidance of her teacher Pampa Sen Gupta. She also expresses her gratitude to St. Xavier's College for organizing such a fitting event, 'The Confluence 2014' and giving this golden opportunity to prove her worth.



-
- i Less Developed Countries
 - ii The growth which satisfies, effectively and efficiently, the basic needs of the present generations and also sustains the needs of the future generations can be connoted as sustainable development.
 - iii A study from 2001 noted that efficient policies for renewable energy and pollution are compatible with increasing human welfare, eventually reaching a golden rule steady state.
 - iv Overall capital assets are meant to include not only manufactured capital (machines, factories, roads) but also human capital (knowledge, experience, skills) and environmental capital (forests, soil equality, and rangeland).
 - v See <http://timesofindia.indiatimes.com> for a detailed discussion
 - vi For example, China's population density per acre of arable land is twice that of India, yet yields are also twice as high. Though it is clear that the environmental destruction and high fertility go hand in hand, they are both direct outgrowths of a third factor, absolute poverty.
 - vii While the literacy rate has gone up from 18.3% to 1951 to 64.8% in 2001, the number of illiterate persons still exceeds 304 million making India the country with the highest no. of illiterate persons in the world.
 - viii The growing evidence on climate change shows Green House gas emissions resulting from the cumulative action of all countries, will, if not effectively contained, produce changes in climate which would have very severe effects in the future.
 - xi See <http://articie.wn.com>

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Todaro, M. P. and Smith, S., (2013), Economic Development, 10th Edition, Pearson Education Ltd, pp.-7-16 and 483-487

Web links

http://en.wikipedia.org/wiki/Sustainable_development as viewed on 12.09.2014

<https://in.images.search.yahoo.com/search/images> as viewed on 12.09.2014

<http://timesofindia.indiatimes.com> as viewed on 13.09.2014 and 14.09.2014

<http://article.wn.com> as viewed on 13.09.2014, 14.09.2014 and 15.09.2014

[This paper was judged as the Best Article in The Confluence 2014 at St. Xavier's College, Kolkata.]



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Abstract: Please note that abstract should be of maximum 500 words summarising the whole paper. It should clearly contain the rationale, objective, conceptual framework if any, research design and methodology, findings, and implications.

SPELLING

British style spelling should be followed. When working in MS Word change the settings to Tools/Language/Set Language/English(UK).

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NUMBER

Numbers of single digit should be written in words, for example: The bus stop is six miles away.

Two or more digit should be written in Arabian format: Indian railways run 83 trains to Delhi daily.

If the sentence has to start with the number it should be written in words : Eighty three students participated in the rally.

TABLE

Table should be presented in simple 'grid' format left aligned.

Heading column should be in bold letter.

SPACING

Texts(paragraphs) should be 1.5 spacing.

APPENDICES

Appendices should be numbered in Roman numerals (I,II,III etc).

CAPITALISATION

The first letter of names of places, persons, governments schemes should be written in capital letters.

ABBREVIATIONS

Abbreviated form of an acronym should be there when it is mentioned first time in the document for example: . After that the acronym alone can be mentioned.

AMPERSAND (&)

Use of Ampersand (&) should be made sparingly (not as a substitute for 'and') such as

Registered names : Brown & Watson

Companies and partnerships : Mehta & Co

FOOTNOTES/ENDNOTES

All the notes should be put as endnotes.

REFERENCING

In text citation

All documents referred will be cited in text as illustrated follows:

Single author : (Allison, 1971)

Two authors : (Hill and Hupe, 2002)

2+authors : (Farrington et al, 1999)

Multiple citations should be separated by a semicolon : (Allison, 1971; Hill and Hupe, 2002)



If verbatim referencing has been done page number should be presented with one inch left indent and should be written in '11 font size' as follows:

Quick concluded that:

...it tended to give the impression that *all* policies suffered under the same implementation problems ...however, it became clear 'different problems in implementation' (Quick, 1980: 40-41).

If you add any emphasis such as italicising any particular term, then please specify:

...it tended to give the impression that *all* policies suffered under the same implementation problems... however, it became clear 'different policies had different (emphasis added by the author) problems in implementation' (Quick, 1980: 40-41).

Detailed Referencing (at the end of the chapter)

Organisational publication(no author)

BAIF(2006) *Annual Report 2005-06*, Pune: BAIF

Book (Single Author)

Allison, G. T. (1971) *Essence of Decision : Explaining the Cuban Missile Crisis*, Boston: Little, Brown and Company

Book (two authors)

Hill, M. and Hope, P. (2002) *Implementing Public Policy: Governance in Theory and Practice*, London: Sage Publications

Book (more than two authors)

Farrington, J., Turton, C. and James, A. J. (1999) *Participatory Watershed Development : Challenges for the Twenty-First Century*, New Delhi: Oxford University Press

Book (edited)

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Why bodhi ?

Bankim Chandra in Dharma-tattwa raised a million dollar question "what we are to do with life; what is to be done ?" (*Jibon loia ki koribo; ki korite hoy?*). This was probably the question which hunted a considerable section of our faculty members. In an untiring pursuit to solve this question, we came to realize that eternal quest for knowledge along with healthy exchange of opinion could be an effective starting point in our journey to the centre of this question. By exerting our freedom of expression and also by articulating our opinion, we may at least make our life more meaningful. This venture requires a platform for clarity of thought. Thus came the idea of *Bodhi*, a journal to be published exclusively by Vivekananda College. Not only the members of our faculty, any free thinker from any part of the globe is at liberty to contribute and express his/her valued opinion. We welcome articles from the experts of different subjects. We firmly believe that active participation of erudite persons shall enable the journal to rise to the pinnacle of glory in near future.

The advent of printing in 15th century Europe raised the human civilization to a majestic climax. Power of the printed word began to dominate the entire world. Pope Alexander VI, apprehensive of the development, warned in papal bull in 1501: "The art of printing is very useful insofar as it furthers the circulation of useful and tested books: but it can be more harmful if it is permitted to widen the influence of pernicious works." By the word 'pernicious', the pope meant any writing 'antagonistic to the Catholic faith.' Centuries have passed since the days of the pope Alexander VI. In many ways, liberalism reigned supreme in the past centuries. Accepting others' views has been accepted fact in our times, although not followed always in the strict sense of the term. But we are determined to follow it. The opinion of the 'other' shall be honoured, but at the same time the right to polemics will not be ignored.

It is the well considered opinion of the faculty members that the journal would be published in three parts—bodhi artham, bodhi vijanan and bodhi kala. The first one will deal with issues relating to finance and economics; the second one shall comprise discussion on science and technology and the third one will include articles on humanities and social sciences. But we are entirely opposed to the idea of rigid compartmentalization. A discourse on the history of science may be published in bodhi kala, or for example, a critique of colonial economy shall well accepted in bodhi artham. Our resources are limited, but our vision is an humble effort on our part to build up a knowledge based society.

That is why

Chief Advisor
bodhi

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