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DIRECTION AND TRENDS OF INDIA'S PINEAPPLE EXPORTS: A STUDY IN THE FREE TRADE REGIME

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ABSTRACT

Pineapple, one of the most internationalised fruit globally traded where the potential for export from India is not yet exploited has rich trade prospects, being one of the major producers of the world. The present study examines the direction and trend of pineapple (fresh and juice) export from India in background of economic liberalisation and AOA under WTO, using kinked exponential models and aimed at suggesting suitable policy measures for improving exports. The results of the study revealed that Indian pineapple is exported mainly to Asian Countries with a minimum access to major importing markets of European Countries and the USA. The growth rates in Post WTO shows a positive trend and a negative trend in Pre-WTO period, but suitable policy measures are to be made for exploring and penetrating in to the major markets of Europe and USA.

KEYWORDS

Pineapple exports, free trade, Indian exports.

INTRODUCTION

The Uruguay round Agreement on Agriculture (AOA) of 1995 under WTO was the first step towards the reforms in international agricultural trade. (Singh Rampratap 2011) It places emphasis on agricultural export as an instrument of growth that ultimately give benefits to the farmers of developing countries (Singh 2011). The government of India has announced much liberalization policies and policy changes since July 1991 to boost the agricultural exports including devaluation of Indian rupee, decanalisation of the imports of agricultural commodities, removal of quantitative restrictions and reduction in tariff rates, setting up of AEZs, introduction of NHM programmes etc. These policies are in compliance with the free trade regime advocated by WTO in AOA.

India is the second largest producer of fruits (10 percent) and vegetables (14 percent) in the world, ranked behind the China. (Singh 2009). But our share in the world exports of fruits and vegetables is only about 1 percent and 2 percent of the total fruits and vegetable exports in the world. Researches have shown that the production and growth trends of fruits and vegetables in India between the periods 1980 to 2005 shows an increasing trend. Although the agricultural exports show an increase, its per cent share has been decreasing and also fluctuating widely. Thus whether the expectations come true or not is a matter for debate. (Birthal et al., 2008, Singh and Mathur 2008, Singh 2009).

Pineapple is one of the most internationalized fruit traded globally, second only to banana and citrus in this regard. More than 6 million (44 percent) of the 14 million tones grown are destined for export, which is significant in comparison to Mango and Banana. The major fresh pineapple exporters are Costa Rica, The Ivory Coast, and Philippines. (Table 3) The processed category is completely dominated by Asian countries. Thailand, Philippines and Indonesia holding more than 50% of the total volume of exports and are the main supplier of European countries and US.

India is seventh largest pineapple producer in the world with a share of 7.31 per cent. Major pineapple producing states in India are the North Eastern States, West Bengal, Bihar, Karnataka and Kerala. The major varieties cultivated are Kew and Mauritius of which Mauritius is more suitable for export purpose. The boost to pineapple cultivation came with the govt's diversification of horticulture that coincided with the liberalization policies.

The current export market for pineapple from India is primarily Middle East and export to European countries is minimal. Trade prospects for developing countries are very promising as pineapple is rated as an under achiever implying huge potential to be tapped by improving the bottlenecks in supply capacity and for dynamic export expansion. On an aggregate level, India is viewed to have a conducive environment for the development of pineapple production and exports. (Jacob and Soman 2006).

The liberalisation policy and the establishment of WTO had accelerated the process of free trade in agricultural commodities, its impact vary significantly between crops and across regions. This calls for detailed crop specific and region specific studies on the process of economic liberalisation and AOA. Under this background, the present paper makes an attempt to analyze the direction of India's pineapple export for the period of 2001-2010 and growth trends of export of pineapple for the period 1983-2010 with special emphasis on liberalisation policy and WTO Agreement.

DATA AND METHODOLOGY

Time series data on fresh (SITC Rev.2 Code 05795) and pineapple juice ((SITC Rev.2 Code 05854) export from India (both quantity and value) was collected from the UNCOMMITRDE DATA for the period 1983-2010. Time series data for analyzing the direction of trade, was taken from UN TRADEMAP, (HS code 080430, 200949 and 200941). Trend equations were fitted for fresh and pineapple juice export from India. Since India is a net exporter of fresh pineapple, which is more important on the balance of trade view point, a trend equation was fitted for net export of fresh pineapple also. No such exercise is done on juice category, because India is a net importer of pineapple juice products.

Kinked exponential model was fitted to estimate the trend of export. Single kink and two kink models were employed wherever appropriate. A distinctive feature of kinked exponential growth models, is that it make use of information regarding the values of the variable in question throughout the time series in estimating the growth rate for a given sub period. Kinked exponential models which impose continuity restrictions at the break points between sub periods, eliminates the discontinuously bias and there by provides an improved basis for growth rate comparisons. In the absence of special circumstances such as definitional changes or natural disasters, kinked exponential models are preferable to discontinuous ones for growth rate comparisons. (Boyce J K 1984)

Single kink model was fitted by breaking the time series data at the point K (1995) in to two sub periods i.e., pre WTO (1983-1995) and post WTO period (1996-2010). The discontinuous growth rates for the resulting two sub periods could be derived by fitting the following equation.

$$\ln Y_t = \alpha_1 D_1 + \alpha_2 D_2 + (\beta_1 D_1 + \beta_2 D_2)t + ut \quad (1)$$

Where D_j is a dummy variable which takes the value 1 in the j th sub period and 0 otherwise. After substituting for α_2 ($\alpha_1 = \alpha_1 D_1 + \alpha_1 D_2$) we get the restricted form as:

$$\ln Y_t = \alpha_1 + \beta_1 (D_1 t + D_2 k) + \beta_2 (D_2 t - D_2 k) + ut \quad (2)$$

The OLS estimates of β_1 and β_2 from (2) give the exponential growth rates for the two sub periods.

Two kink model was fitted by breaking the time series data at point K_1 (1991) and K_2 (1995) so as to create three sub periods, i.e. pre liberalization period (1983-1990), liberalization period (1991-1995), Post WTO (1996-2010). The discontinuous growth rates for the resulting three sub periods could be derived by fitting the following equation.

$$\ln Y_t = \alpha_1 D1 + \alpha_2 D2 + \alpha_3 D3 + (\beta_1 D1 + \beta_2 D2 + \beta_3 D3)t + ut \quad (3)$$

The restricted two kink model was obtained after substituting for α_2 and α_3 as follows:

$$\ln Y_t = \alpha_1 + \beta_1 (D1t + D2k_1 + D3k_1) + \beta_2 (D2t - D2k_1 - D3k_1 + D3k_2) + \beta_3 (D3t - D3k_2) + ut \quad (4)$$

A SNAP SHOT OF WORLD PINEAPPLE TRADE

The following tables present a snap shot of world pineapple trade:

TABLE 1: AVERAGE EXPORT QUANTITY OF PINEAPPLES BY REGIONS FOR THE PERIOD 1992-2007

REGION	AVERAGE QUANTITY(in tones)	Percentage
Asia	1824609	51.32
Europe	766737	21.57
Oceania	573265	16.12
America	382142	10.75
Africa	8624	0.24
TOTAL	3555377	100.00

Source: FAO STAT

Note: Figures in the parentheses represent the percentage to total

Table 1 shows that the countries of Asian region exported more than half (51.32 percent) of the pineapple (both fresh or dried and processed) during the period 1992-2007 followed by European countries (21.57 percent). The export from European countries mainly is in the form of re export to other countries. (See table3 presenting the share of major producers)

TABLE 2: AVERAGE IMPORT QUANTITY OF PINEAPPLES BY REGIONS FOR THE PERIOD 1992-2007

REGION	AVERAGE QUANTITY(in tons)	Percentage
America	1854723	46.75
Europe	1701883	42.89
Asia	356215	8.98
Oceania	41683	1.05
Africa	13173	0.33
TOTAL	3967677	100.00

Source: FAO STAT

Note: Figures in the parentheses represent the percentage to total

Table 2 which gives the region wise import quantity of pineapple (both fresh or dried and processed) for the period 1992-2007. The table shows that America import nearly half (46.75 percent) of the world import followed by European countries (42.89 percent). The import of European countries is mainly for exporting to other countries.

TABLE 3: LEADING PINEAPPLE PRODUCING COUNTRIES & THEIR SHARE IN EXPORT OF FRESH PINEAPPLE FOR THE YEAR 2010

Country	Share in Percentage of Production	Share in Percentage of Export Value
Philippines	11.17	2.8
Brazil	10.92	0.1
Costa Rica	10.18	44.1
Thailand	9.91	0.2
China	7.82	0.1
India	7.31	0.1
Indonesia	7.16	0
Nigeria	5.42	0
Mexico	3.61	1.7
Others	26.49	50.9
World	100	100

Source: Computed from TRADEMAP DATA

The table shows that Costa Rica, the third major producer, hold about half of world's fresh pineapple exports and Mexico is another major exporter, as compared with share of production. Of the major producers, Thailand is the top exporter of processed pineapple products. The share in export value of India, China and Brazil is negligible when compared with the share of production.

DIRECTION AND TRENDS OF INDIA'S PINEAPPLE EXPORTS: AN ANALYSIS**DIRECTION OF INDIA'S PINEAPPLE EXPORT**

The following table gives the details of Indian Pineapple export scenario for the period 2001 to 2010.

TABLE 4: MAJOR IMPORTERS OF FRESH PINEAPPLE FROM INDIA (Average for the Period 2001 to 2010) HS code 080430

Importers	Quantity(in Tons)	Value(in US \$1000)
Nepal	1119 (45.81)	141 (20.99)
United Arab Emirates	627 (25.67)	225 (33.41)
Saudi Arabia	183 (7.49)	80 (11.90)
Maldives	98 (3.99)	53 (7.92)
Oman	69 (2.81)	32 (4.76)
Spain	56 (2.29)	24 (3.55)
Pakistan	55 (2.27)	16 (2.37)
Bangladesh	48 (1.96)	8(1.22)
Qatar	41(1.68)	22 (3.29)
Netherlands	35 (1.42)	14 (2.03)
Bahrain	27 (1.12)	15 (2.17)
Others	85 (3.49)	43 (6.41)
World	2441 (100)	670 (100)

Source: Computed from TRADEMAP DATA

Note: Figures in the parentheses represent the percentage to world figures

The table indicates that the Asian countries (Nepal and UAE) have the highest share in average quantity and value of import. Among the top 10 importers only two European countries i.e. Spain (2.29percent in quantity) and Netherlands (1.42 percent in quantity) are included. No significant export is made to USA being the largest importer of pineapples. Among Asian countries, the GCC countries together hold more than fifty percent of value of exports from India.

TABLE 5: MAJOR IMPORTERS OF PINEAPPLE JUICE -BRIX VALUE > 20 FROM INDIA (for the Period 2003 to 2010) HS code 200949

Importers	Quantity(in Tons)	Value(in US \$1000)
Netherlands	120 (37.75)	114 (29.50)
Germany	69 (21.73)	75 (19.56)
Nepal	42 (13.19)	70 (18.13)
Belgium	25 (7.89)	42 (10.79)
United Kingdom	12 (3.69)	20 (5.10)
Israel	9 (2.90)	13 (3.25)
United Arab Emirates	8 (2.53)	10 (2.63)
Japan	5 (1.70)	10 (2.63)
Australia	4(1.36)	4 (1.01)
Maldives	4(1.20)	3 (0.65)
Others	19 (6.05)	26 (6.76)
World	319 (100)	385 (100)

Source :Computed from TRADEMAP DATA

Note: Figures in the parentheses represent the percentage to world figures

Table 5 shows that European Countries (Netherlands and Germany) together hold more than fifty percent of the total export of pineapple juice of Brix value > 20 from India followed by Asian countries (Nepal & UAE). Though USA is the top importer of the pineapple products, there is no evidence of significant export from India which is to be enquired.

TABLE 6

Major Importers of Pineapple Juice - Brix value <=20 from INDIA. (Average for the Period 2003 to 2010) HS code 200941		
Importers	Quantity(in Tons)	Value(in US \$1000)
Netherlands	86 (71.34)	77 (68.93)
Germany	19 (15.93)	18 (16.04)
Nepal	9 (7.85)	14 (12.20)
United Kingdom	3 (2.50)	1 (1.03)
USA	3 (2.50)	2 (1.67)
World	120 (100)	120 (100)

Source :Computed from TRADEMAP DATA

Note: Figures in the parentheses represent the percentage to world figures

Table 6 shows that Netherlands and Germany together hold about ninety percent of the total export of pineapple juice of Brix value <= from India. The share of export to USA is nominal which is to be improved.

India's share in world exporting scenario of pineapple (both fresh and juice) is negligible, being the seventh producer of world .The direction of trade shows that our fresh products reach only to Asian countries and need appropriate strategies to penetrate into European countries and US markets, the major importers so as and to exploit the comparative advantage arise from free trade regime as envisaged by the WTO and AOA. The direction of trade of juice products also presents a similar picture, but European countries dominate in import than the Asian countries. But our balance of trade is unfavourable, steps should be taken to bring down the imports to India, and improve the exports to USA and European countries, the major importers of the world pineapple products.

TRENDS IN INDIA'S PINEAPPLE EXPORTS- AN ANALYSIS USING KINKED EXPONENTIAL TREND MODEL**SINGLE KINK MODEL**

Single kink model was fitted to data of export of fresh pineapple, net pineapple export and pineapple juice export. The fitted equations are presented below:

1 Fresh Pineapple (Quantity) N=28 and k= year 1995 (13)

$$\ln Y_t = 5.5397 - 0.0381(D1t + D2k) + 0.1137 (D2t - D2k)$$

Variance Explained =79.76%

2 Fresh Pineapple (Value) N=28 and k= year 1995 (13)

$$\ln Y_t = 5.4019 - 0.0679(D1t + D2k) + 0.1154 (D2t - D2k)$$

Variance Explained =78.97%

3 Net Export-Fresh (Quantity) N=28 and k= year 1995 (13)

$\ln Y_t = 5.5382 - 0.0383(D1t + D2k) + 0.1140(D2t - D2k)$

Variance Explained= 79.56%

4 Net Export-Fresh (Value) N=28 and k= year 1995 (13)

$\ln Y_t = 5.3981 - 0.0675(D1t + D2k) + 0.1149(D2t - D2k)$

Variance Explained= 78.98%

5 Pineapple Juice (Quantity) N=28 and k= year 1995 (13)

$\ln Y_t = 6.6513 - 0.1527(D1t + D2k) + 0.0784(D2t - D2k)$

Variance Explained =37.02%

6 Pineapple Juice (Value) N=28 and k= year 1995 (13)

$\ln Y_t = 6.2576 - 0.1092(D1t + D2k) + 0.0682(D2t - D2k)$

Variance Explained =31.42 %

TWO KINK MODEL

1Pineapple Juice (Quantity) N=28 and k1= year 1990 (8) and k2=year 1995 (13)

$\ln Y_t = 7.4596 - 0.3171(D_1t + D_2k_1 + D_3k_2) + 0.0374(D_2t - D_2k_1 - D_3k_2) + 0.2981(D_3t - D_3k_2)$

Variance Explained =74.32 %

2 Pineapple Juice (Value) N=28 and k1= year 1990 (8) and k2=year 1995 (13)

$\ln Y_t = 6.9768 - 0.2620(D_1t + D_2k_1 + D_3k_2) + 0.0447(D_2t - D_2k_1 - D_3k_2) + 0.1680(D_3t - D_3k_2)$

Variance Explained =66.50 %

The single kink model fitted well for all the data except for pineapple juice. So the two kink model was fitted for pineapple juice and the trend line was a line of good fit. The growth rate of pineapple fresh quantity and net pineapple fresh quantity were more or less the same.

GROWTH RATES

SINGLE KINK MODEL

Product	Period	Growth Rate	Standard Error	p value
Pineapple: Fresh(Quantity)	Pre WTO	- 03.81%	0.0162	0.0267
	Post WTO	11.37%	0.0125	0.0000
	Pre WTO	- 06.79%	0.0156	0.0002
	Post WTO	11.54%	0.0120	0.0000
Net Pineapple: Fresh(Quantity)	Pre WTO	- 03.83 %	0.0162	0.0260
	Post WTO	11.40 %	0.0125	0.0000
	Pre WTO	-06.75%	0.0155	0.0002
	Post WTO	11.49%	0.0120	0.0000

TWO KINK MODEL

Product	Period	Growth Rate	Standard Error	p value
Pineapple: Processed(Quantity)	Pre Liberalization	-31.71%	0.0578	0.0000
	Liberalization	03.74 %	0.0175	0.0427
	Post WTO	29.81%	0.0967	0.0051
Processed (Value)	Pre Liberalization	- 26.20%	0.0533	0.0000
	Liberalization	04.47 %	0.0161	0.0106
	Post WTO	16.80 %	0.0892	0.0719

The growth rate estimates depicts that, the pre WTO (1983-1995) era experienced a negative rate of growth where as the post WTO (1996-2010) era experienced positive growth rate in single kink model. Similarly in two kink model, the pre liberalization era (1983-1990) showed a negative growth rate and liberalization era (1991-1995) and post WTO era (1996-2010) showed a positive growth rate. All the coefficients are significant at 5% significance level and p values are satisfactory in the kinked models. This is a positive sign to Indian pineapple sector even though our share in total pineapple export is negligible. Steps should be taken by the government, to maintain this momentum and to penetrate in to new markets of European countries and USA so as achieve the comparative advantage arise in the free trade regime.

CONCLUSIONS AND POLICY IMPLICATIONS

The direction of pineapple export of India (fresh and juice) shows that India has an immense potential which is yet to be tapped .Even though our share is negligible in world scenario, there exist unexploited markets like USA and European countries, which can be exploited through proper policy measures and trade strategies. Along with more market accesses, steps should be taken to make India a net exporter of pineapple juice from the present net importer, while sustaining the present status in fresh pineapple export .The government should implement suitable programmes and make policy measures to sustain the present growth rate and make strategical interferences to raise the growth rate so as to reap the advantages as intended by AOA and liberalisation policies. Following are some policy recommendations for boosting pineapple export from India.

SPECIFIC POLICY MEASURES RECOMMENDED FOR BOOSTING OF EXPORT OF PINEAPPLE FROM INDIA.¹

- 1 Exploiting the location advantage & tariff duty rates.
- 2 Lowering the cost of transportation by encourage cultivating the pineapple for export in the states of Kerala, Karnataka and Maharashtra which are nearer to Cochin and Mumbai Ports.
- 3 Standardization of Controlled Atmosphere (CA) and Modified Atmosphere (MA) storage facilities.
- 4 Standard post harvest infrastructure and cool chain facilities for supply quality pineapple as pineapple fruit is very sensitive to atmospheric temperature.
- 5 Promotion of organic pineapple cultivation.
- 6 Cultivation of export suitable variety which are popular in European countries such as Gold, Baby and MD2.
- 7 Adequate and sophisticated processing infrastructure facilities.

NOTE

¹ Inputs from NAFED Report of Market Intelligence study of selected crops having export potential, Ministry of Agriculture (Trade Division), New Delhi.

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APPENDIX

APPENDIX I: TARIFF STRUCTURE OF FRESH PINEAPPLE

Region & Country	Type of Tariff & Percentage
European Countries	GSP ,NIL
CIS Countries:	
a) Russia	GSP, 3.75%
b) Ukraine	GSP, 4%
c) Kazakhstan	GSP, 3.75%
ASIAN Countries	
a) Thailand	40% or 852.74\$/ton
b) Indonesia	5%
c) Philippines	10%
d) Malaysia	228.17 \$/ton
e) Vietnam	Ad Valorem, 40%
f) Singapore	MFN duties, NIL
GULF COUNTRIES	MFN duties, NIL
PACIFIC RIM COUNTRIES	
a) Australia	NIL
b) South Korea	Ad Valorem, 30%
c) Japan	MFN, 17%
CHINA	MFN, 12% & APTA, & 7.9%
USA	GSP ,NIL

APPENDIX II: SPECIFIC PRODUCT PREFERENCES OF PINEAPPLES FOR EU MARKET
MARKET REQUIREMENTS

International quality standard (Codex Alimentarius standards for pineapples)

MINIMUM LABELING

It is well documented and exporters are aware of the requirements like:

Name and address of exporters/ packers, Name of product/ variety, Origin of produce, Class or grade, Weight

PACKAGING

Pineapples are packed in a single layer in fruit cartons (telescope or single piece folding) Fruits are wrapped in paper or padded.

IMPORT REGULATORY DOCUMENTS

Phytosanitary certificate from the country of origin Certificate of origin on GSP Form A for developing and least developed Countries

SPECIFIC MARKET TRENDS AND PREFERENCES

Germany, Italy and UK are the largest markets

EU market is growing and there is demand for new varieties like Baby, MD2.

UK and France prefer 0.9 kg to 1.5 kg fruits.

UK prefers 2/3 colour stage at destination.

Crown must be free of dried and dead leaves and its leaves must be fresh, turgid and green.

Preferences are for uniformity in colour and size in a pack

LIST OF ABBREVIATIONS

AEZ	- Agri Export Zones
APTA	- Asia-Pacific Trade Agreement
CIS	- Commonwealth of Independent States
GSP	- Generalized System of Preferences
GCC	- Gulf Co-operation Council countries
MFN	- Most Favoured Nation
NAFED	- National Agricultural Cooperative Marketing Federation of India
NHM	- National Horticulture Mission
WTO	- World Trade Organization

A STUDY ON HOUSEHOLDS' CONSUMPTION PATTERN OF AAVIN MILK IN ERODE DISTRICT

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ABSTRACT

In India, the dairy sector plays an important role in the socio-economic development, and constitutes an important segment of the rural economy. Dairy industry provides livelihood to millions of homes in villages, ensuring supply of quality milk and milk products to people in both urban and rural areas. India's dairy products import has dipped while exports have increased at a faster rate. The direct consumption of liquid milk by the producer (households) as well as the demand for processed dairy products has increased with the growth of income levels. Reducing the cost of production, development in strategy and infrastructure and focusing on specialty products will aid to meet the needs of target customers. This study examines the household's consumption pattern of avian milk in Erode district. For this study, the data was collected from 200 (sample size) households. Chi-square analysis was employed to measure the relationship between family size, income, households with girl-infant/boy infant and product preference, milk consumption and households' opinion on price etc.

KEYWORDS

Dairy Industry, Dairy Products, Milk Production.

INTRODUCTION

India is the world's largest milk producer and all set to become the world's largest food factory. India's dairy industry is considered as one of the most successful development. Dairy cooperatives account for the major share of processed liquid milk marketed in the India. Milk is processed and marketed by 170 milk producers' cooperative unions, which federate into 15 state cooperative milk marketing federations. Over the years, several brands have been created by cooperatives like Amul, Vijaya (AP), Verka (Punjab), Saras (Rajasthan), Uttar Pradesh, Punjab, Hariyana, Rajasthan, Gujarat, Maharashtra, Andhra Pradesh, Karnataka and Tamilnadu are the milk surplus states in India. The manufacturing of milk a product is obviously high in these milk surplus states. Significant investment opportunities exist for the manufacturing of value added milk products like milk powder, packaged milk, butter, ghee, cheese and ready-to-drink milk products.

India has emerged as the largest milk producing country in the world with present level of annual milk production estimated as 94.5 million tonnes. We expect a production level of 135million tonnes by the year 2015. India has a large livestock population base constituting 278 million livestock including 180.5 million cattle, 82.8 million buffaloes, 4 million sheep and 9.2 million goats. The livestock population is projected to increase to 322 million by the year 2015.

The large livestock population is raised primarily on crop residues and grazing in the common property including basement. The forest area, which was a major source of grazing, is no longer available to livestock breeder's especially landless people. As a consequence, the available feed resources fall short of the nutritional requirement. The shortfall is estimated as 59.9 million tonnes for the green fodder and 19.9 million tonnes for dry fodder. This shortfall is likely to increase by 2015 to 63.5 million tonnes of green fodder and 23.56 million tonnes of dry fodder. Milk was always manufactured and consumed in bulk in India. But with the rise in disposable incomes the demand for milk and related items are on a continuous rise. Milk is said to be among the most important part of the diets of Indian after wheat and rice.

Milk production in India ranges from rural areas to the highly urbanized ones. In the rural areas every farmer having one or two cows or buffaloes yields around 3 litres of milk per animal. India contributes almost 65% of the total world buffalo milk. India is home for the largest milch anima population in the world. India has become the world's largest milk producer after implementation of operation flood schemes. Tamilnadu is one among the major producers of milk in our country. With the policy of hon'ble chief minister of Tamil nadu to create a second white revolution, Tamilnadu is all set to take another big leap forward that aims at a multi fold increase in milk production in the state. In the year 2012 out of total milk produced in our state 12% of milk is consumed at village level by the milk producers. 49% of milk is handled by unorganized sector such as local vending. The remaining 39% of milk is handled in the organized sector. The share of the cooperatives in the organized sector is 24 lakh litres to 29 lakh litres per day. Measures are being taken to augment milk production and focus is being given on improvement in productivity at grass root level.

In order to increase the competitiveness of Indian dairy industry, efforts should be made to reduce cost of production. This can be achieved through increasing productivity of animals, improve animal health care and breeding facilities and management of dairy animals. The government and dairy industry will need to play a vital role in this direction. Indian dairy industry should further develop proper dairy production, processing and marketing infrastructure, which is capable of meeting international quality requirements. A comprehensive strategy for producing quality and safe dairy products should also be formulated with suitable legal backup. Dairy industry in India is unique with regard to the availability of buffalo milk. In this case, India can focus on buffalo milk based speciality products, such as mozzarella cheese, in order to meet the needs of the target consumers.

OBJECTIVE OF THE STUDY

The primary objective of the present study is to find out the households' consumption pattern of Aavin milk in Erode district.

REVIEW OF LITERATURE

Vyas and chaudhri (1971) studied on "Economics of Dairy farming in Mehsana District" have shown that high – yield of reduction and low cost of productivity occurred in dairy farming in the co-operative sector.

George Shanti (1980) observed that enhanced milk production was observed through the dairy co-operatives from rural areas. The milk producers readily sold their milk to dairy co-operatives which adversely affected the milk consumption by the rural masses in general and milk producers in particular.

Rangarajan et al (1980) analysed the economics of milk production from cross-breed cows and nondescripts in terms of yield, cost of milk production. The main finding of the study was that cross breeds forced for better than local ones in all the aspects

Boopathiraj (2005) concluded that the satisfaction of the members could be increased by making arrangement for the members to visit different leading and successful performance of milk producers co-operative societies.

Elumalai (2005) analysed that India had revealed comparative advantage to export milk powder and butter in the market of SAARC countries. At the global level, India had comparative disadvantage in the export of milk powder, butter, cheese and curd.

Jesse Edward et al (2006) discussed that India's main system of dairy productions involves a smallholder production system in which most of the milk produced is consumed on the farm or distributed through informal channels. This system of production, combined with Indian policies that encourage self-sufficiency and restrict dairy imports, leaves much unused potential in the Indian dairy market.

Sarvesh Kumar and Sirohi Smita, (2008) evaluated the economic performance of dairy industry by using profitability ratios, liquidity ratios, leverage ratios and efficiency ratios. The study revealed that sales and value of output of most firms were increased during 1991 – 1992 to 2000 – 2001. But the Indian firms were suffering from liquidity and profitability crisis due to tight credit policy and their ineffective asset management.

Chawla Anil (2009) analyzed that India has surplus cattle. They maintain on a strategy for enhancing milk production by improving the quality of milch animals without adding to the number and the researcher study the economic relationships at the firm level or the economic impact of dairying.

Meenakshi Gupta and Vikas Sharma (2009) highlighted that India is the largest producers of milk. The overall growth rate of dairy sector was 4% which was almost 3 times the average growth rate of dairy industry in the world.

Bindu hima T. and Subrahmanyam S.E.V (2012) analysed that the performance of Indian dairy sector and operation flood programme established milk producers co operatives in villages and made modern technology will increase the milk production.

Dr. M. S. Ranjithkumar, S. Namasivayam A. Anandhi analysed that the social economic profile of the co-operative milk society. They found that majority of the producers are satisfied with the co-operative milk society because of its measurement, correct testing, market price, payment and bonus. Some producers are not satisfied with the society milk because of its timing, high charges for cattle insurances, lack of training facilities, and lack of loan facilities and high cost of fodder feed.

According to "Indian Dairy Industry Analysis", India is the world's largest milk producer, accounting for around 17% of the global milk production. Besides, it is one of the largest producers as well as consumers of dairy products. Due to their rich nutritional qualities, the consumption of dairy products has been growing exponentially in the country, and considering such facts and figures, their study anticipates that the milk production in India will grow at a CAGR of around 4% during 2011-2015.

Various researchers have analyzed the milk production, factors influencing milk production, social economic profile of the co-operative milk society, performance of dairy industry, modern technology applications and economic impact of milk dairying. There is a research gap found by the researchers after carefully reviewing the research work of various researchers in this milk dairy industry. Not many studies have done in the area of milk consumption hence; the researcher would like to address this research gap by conducting a study on the households' consumption pattern of Aavin milk in Erode district.

METHODOLOGY

This survey based research study was aimed at household's consumption pattern of Aavin milk in Erode district. A comprehensive, structured questionnaire was drafted and pre-tested with help of a detailed review of literature relevant to the current field of investigation and discussion with the households in Erode district. The survey was carried out on 200 sample respondents. After all the questionnaires were collected back, the responses were tabulated. Each answer of the respondent was tabulated to its respective category. Primarily, chi square analysis was used to interpret the data. Secondary data were also used, which were sourced from research papers, journals, magazines and websites.

DATA ANALYSIS AND DISCUSSION

ANALYSIS-1: FAMILY SIZE OF HOUSEHOLDS AND MILK CONSUMPTION (LITRES), PRODUCT PREFERENCE

Null hypothesis (H0)

There is no significant difference among family size of households and milk consumption (litres), product preference.

Alternative hypothesis (H1)

There is a significant difference among family size of households and milk consumption (litres), Product preference.

Family Size of households	Calculated value	Table value	Degrees of freedom	Remark
Milk consumption (liters)	63.54	16.919	9	H0 is Rejected
Product preference	39.24	16.919	9	H0 is Rejected

INFERENCE

There is a significant difference among family size of households and milk consumption (litres), product preference.

ANALYSIS-2: NUMBER OF CHILDREN IN THE AGE GROUP OF 5 TO 16 YEARS AND MILK CONSUMPTION (LITRES), PRODUCT PREFERENCE, FACTORS INFLUENCING CUSTOMERS IN BRAND PREFERENCE

Null hypothesis (H0)

There is no significant difference among number of children in the age group of 5 to 16 years and milk consumption (litres), product preference, factors influencing customers in brand preference.

Alternative hypothesis (H1)

There is a significant difference among number of children in the age group of 5 to 16 years and milk consumption (litres), product preference, factors influencing customers in brand preference.

Number of children in the age group of 5 to 16 years	Calculated value	Table value	Degrees of freedom	Remark
Milk consumption (liters)	55.34	16.919	9	H ₀ is Rejected
Product preference	33.18	16.919	9	H ₀ is Rejected
Factors influencing customers in brand preference	64.18	16.919	9	H ₀ is Rejected

INFERENCE

There is a significant difference among number of children in the age group of 5 to 16 years and milk consumption (litres), product preference, factors influencing customers in brand preference.

ANALYSIS-3: HOUSEHOLDS WITH BOY-INFANTS AND MILK CONSUMPTION (LITRES), PRODUCT PREFERENCE, FACTORS INFLUENCING CUSTOMERS IN BRAND PREFERENCE

Null hypothesis (H₀)

There is no significant difference among households with boy-infants and milk consumption (litres), product preference, factors influencing customers in brand preference.

Alternative hypothesis (H₁)

There is a significant difference among households with boy-infants and milk consumption (litres), product preference, factors influencing customers in brand preference.

Households with Boy-infants -	Calculated value	Table value	Degrees of freedom	Remark
Milk consumption (liters)	29.7	16.919	9	H ₀ is Rejected
Product preference	23.56	16.919	9	H ₀ is Rejected
Factors influencing customers in brand preference	53.58	16.919	9	H ₀ is Rejected

INFERENCE

There is a significant difference among households with boy-infants and milk consumption (litres), product preference, factors influencing customers in brand preference.

ANALYSIS-4: HOUSEHOLDS WITH GIRL-INFANTS AND MILK CONSUMPTION (LITRES), PRODUCT PREFERENCE, FACTORS INFLUENCING CUSTOMERS IN BRAND PREFERENCE

Null hypothesis (H₀)

There is no significant difference among households with girl-infants and milk consumption (litres), product preference, factors influencing customers in brand preference.

Alternative hypothesis (H₁)

There is a significant difference among households with girl-infants and milk consumption (litres), product preference, factors influencing customers in brand preference.

Households with girl-infants	Calculated value	Table value	Degrees of freedom	Remark
Milk consumption (liters)	26.94	16.919	9	H ₀ is Rejected
Products preference	72.76	16.919	9	H ₀ is Rejected
Factors influencing customers in brand preference	40.57	16.919	9	H ₀ is Rejected

INFERENCE

There is a significant difference among households with girl-infants and milk consumption (litres), product preference, factors influencing customers in brand preference.

ANALYSIS-5: HOUSEHOLDS' INCOME AND MILK CONSUMPTION (LITRES), PRODUCT PREFERENCE, FACTORS INFLUENCING CUSTOMERS IN BRAND PREFERENCE, AVAILABILITY OF REFRIGERATOR, OPINION ON PRICE OF AAVIN MILK, EXPECTATION OF CUSTOMERS TOWARDS OFFERS WHILE PURCHASING MILK, SUITABLE MEDIA FOR ADVERTISEMENT/PROMOTION

Null hypothesis (H₀)

There is no significant difference among households' income and milk consumption (litres), product preference, factors influencing customers in brand preference, availability of refrigerator, opinion on price of Aavin milk, expectation of customers towards offers while purchasing milk, suitable media for advertisement.

Alternative hypothesis (H₁)

There is a significant difference among households' income and milk consumption (litres), product preference, factors influencing customers in brand preference, availability of refrigerator, opinion on price of Aavin milk, expectation of customers towards offers while purchasing milk, suitable media for advertisement.

Households income	Calculated value	Table value	Degrees of freedom	Remark
Milk consumption (liters)	75.25	6.919	9	H ₀ is Rejected
Product preference	40.35	16.919	9	H ₀ is Rejected
Factors influencing customers in brand preference	22.24	16.919	9	H ₀ is Rejected
Availability of Refrigerator	16.68	7.815	3	H ₀ is Rejected
Opinion on price of Aavin milk	25.72	21.026	12	H ₀ is Rejected
Expectation of customers towards offers while purchasing milk	29.94	16.919	9	H ₀ is Rejected
Suitable media for advertisement	38.19	16.919	9	H ₀ is Rejected

INFERENCE

There is a significant difference among households' income and milk consumption (litres), product preference, factors influencing customers in brand preference, availability of refrigerator, opinion on price of Aavin milk, expectation of customers towards offers while purchasing milk, suitable media for advertisement.

LIMITATIONS OF THE STUDY AND SCOPE FOR FURTHER RESEARCH

The scope of the study is restricted to Erode and its surroundings only.

Time constraint and resource constraint in view of this fact the results of the present study holds good for the market of Erode only.

Another possible limitation of the present study is that the sample being too small, the results as it provides might at best be signals rather than precise conclusions.

The analysis and findings are recommended only from the primary data of 200 persons so it is not that much accurate, but we can find out the mentality of the retailers in general.

Hence in the foreseeable future, in most of developing countries milk and milk products will not play the same roll in food as in the wealthy societies of developed countries. Pricing of the products and packaging is enabling to increase sales. A reduced price has been widely practiced in developing countries. Policies need to be brought in Indian Dairy scenario may be another area for future research studies.

FINDINGS

The study found that in the geographical area where the research was carried out, majority of the households have

- a) 3 to 5 members in their family
- b) 1 child in the age group of 5-16 years
- c) no boy-infant less than 5 years old
- d) no girl-infant less than 5 years old
- e) a refrigerator in their home.

The research also found that most of the households in the area earn a monthly income of Rs.10001 to 15000, consume 1-2 litres of milk, like the taste of Aavin milk, prefer buttermilk, and have been buying for the last 10 years but they have watched more Hatsun (competitor) advertisement than Aavin advertisements. The research also found that most of the households were highly satisfied towards availability, packaging, taste and freshness of milk but dissatisfied with the price of the milk.

The chi-square analysis highlights the following findings.

1. There is a significant difference among family size of households and milk consumption (litres), product preference.
2. There is a significant difference among number of children in the age group of 5 to 16 years and milk consumption (litres), product preference, factors influencing customers in brand preference.
3. There is a significant difference among households with boy-infants and milk consumption (litres), product preference, factors influencing customers in brand preference.
4. There is a significant difference among households with girl-infants and milk consumption (litres), product preference, factors influencing customers in brand preference.
5. There is a significant difference among households' income and milk consumption (litres), product preference, factors influencing customers in brand preference, availability of refrigerator, opinion on price of Aavin milk, expectation of customers towards offers while purchasing milk, suitable media for advertisement.

SUGGESTIONS

Majority of households prefer buttermilk of Aavin Therefore, Aavin should try to focus on cross selling of buttermilk to its milk consumers (households). The consumers buy Aavin milk for its taste. It has to be noted that milk consumers prefer taste over other requirements. Therefore, the taste of milk should be maintained through appropriate handling process.

Majority of consumers have been purchasing and consuming Aavin milk for more than 10 years. It shows that they are brand loyalist. This group of consumers should be recognized in the form of "membership schemes", gifts etc., so that positive word-of-mouth communication can be created.

The consumption pattern of consumer with children in the age group 5-16 years, boy-infants, girl-infants and consumers with varied income exhibit heterogeneous character. Therefore, special marketing strategy needs to be evolved to target these consumer groups.

More road shows and exhibitions could be conducted to demonstrate the positive impact of milk on health.

The company (Aavin) has to increase television advertisements since most of the households watch only other milk brand advertisements.

RESULTS AND CONCLUSION

Milk and Milk products are rated as one of the most promising sectors in food processing industry. The milk is used for the preparation of various milk products including milk sweets. In today competitive business environment, brands play a vital role. A key factor for the success of Branded Milk is mainly concerned with High Quality and Product Safety. The message will reach the people only through good advertisements. In this modern competitive world, customer mainly prefers taste and new style of package. Available data suggests that the share of consumer expenditure on milk and milk products is increasing both in urban and rural areas of India and this increase in consumption would again further enhance the momentum in the year to come. If suggestions given above are followed by the Erode District Co-operative Milk Producers' Union Limited, it can supply still better quality milk and milk products to the consumers in Erode District.

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A JOURNEY FROM FERA TO FEMA & ITS IMPACT ON FOREX

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ABSTRACT

This research topic is undertaken in order to understand provisions laid by FERA (Foreign Exchange Regulation Act) and the difficulty or problems faced by the individuals in abiding the provisions and also the problems faced by the government to raise foreign investment in the country. It was due to the stringent and aggressive provisions of FERA, that the need for introduction of FEMA (Foreign Exchange Management Act) was felt. After liberalization when the global markets were opened for trading and investing provisions of FERA was acting like obstacles in raising foreign currency. FEMA was introduced with the view to simplify provisions and encourage foreign investment in the country. This research paper focuses on introduction of FEMA which had a positive impact on foreign exchange (FOREX) as well as on money supply, Foreign Direct Investment (FDI) & Foreign Institutional Investors (FIIs).

KEYWORDS

FDI, FIIs, FEMA, FERA, FOREX.

INTRODUCTION: A JOURNEY FROM FERA TO FEMA

FERA in its existing form became ineffective, therefore, increasingly incompatible with the change in economic policy in the early 1990s. While the need for sustained husbandry of foreign exchange was recognized, there was an outcry for a less aggressive and mellower enactment, couched in milder language. Thus, the Foreign Exchange Management Act, 1999 (FEMA) came into being.

The scheme of FERA provided for obtaining Reserve Bank's permission either special or general, in respect of most of the regulations there under. The general permissions have been granted by Reserve Bank under these provisions in respect of various matters by issuing a large number of notifications from time to time since the Act came into force from 1st January 1974. Special permissions were granted upon the applicants submitting prescribed applications for the purpose. Thus, in order to understand the operative part of the regulations one had to refer to the Exchange Control Manual as well as the various notifications issued by RBI and the Central Government.

FEMA has brought about a sea change in this regard and except for section 3, which relates to dealing in foreign exchange, etc. no other provisions of FEMA stipulate obtaining RBI permission. It appears that this is a transition from the era of permissions to regulations. The emphasis of FEMA is on RBI laying down the regulations rather than granting permissions on case to case basis. This transition has also taken away the concept of "exchange control" and brought in the era of "exchange management". In view of this change, the title of the legislation has rightly been changed to FEMA.

The preamble to FEMA lays down that the Act is to consolidate and amend the law relating to foreign exchange with the objective of facilitating external trade and payments and for promoting the orderly development and maintenance of foreign exchange market in India. As far as facilitating external trade is concerned, section 5 of the Act removes restrictions on drawal of foreign exchange for the purpose of current account transactions. As external trade i.e. import/export of goods & services involve transactions on current account, there will be no need for seeking RBI permissions in connection with remittances involving external trade. The need to remove restrictions on current account transactions was necessitated as the country had given notice to the IMF in August, 1994 that it had attained Article VIII status. This notice meant that no restrictions will be imposed on remittances of foreign exchange on account of current account transactions.

Section 5, however, contains a proviso that the Central Government may, in public interest and in consultation with the Reserve Bank, impose such reasonable restrictions for current account transactions as may be prescribed. It appears that this is an enabling provision for the Central Government to impose restrictions on current account transactions in case the situation warrants such restrictions probably due to foreign exchange crisis in future. This proviso seems to have been added keeping in view the lessons learnt by certain South-East Asian countries during the 1997-98 crisis which required stricter exchange controls till the crisis was over.

Similarly, section 7 retains controls on exporters. Though the preamble to FEMA talks about promoting the orderly development and maintenance of foreign exchange market in India, there are no specific provisions in the Act to attain this objective.

FERA contained 81 sections (some were deleted in the 1993 amendment of the Act) of which 32 sections related to operational part and the rest covered penal provisions, authority and powers of Enforcement Directorate, etc. FEMA contains 49 sections of which 12 sections cover operational part and the rest contravention, penalties, adjudication, appeals, enforcement directorate, etc. What was a full section under FERA seems to have been reduced to a sub-clause under FEMA in some cases.

For example,

- (i) Section 13 of FERA provided for restrictions on import of foreign currency & foreign securities. Now this restriction is provided through a sub-clause 6(3)(g).
- (ii) Section 25 of FERA provided for restrictions on Indian residents holding immovable properties outside India. Now the restriction is under sub-clause 6(4).

Reduction in the number of sections means nothing. Real quality of liberalization will be known when all notifications & circulars are finalized & published.

OBJECTIVES OF THE STUDY

- To understand provisions laid by FERA and the difficulty or problems faced by the individuals in abiding the provisions.
- To analyse the problems faced by the government to raise foreign investment in the country.
- To assess the need for introduction of FEMA.
- To analyse the impact of FEMA on FOREX, Money Supply, FDI & FIIs.

METHODOLOGY OF THE STUDY

This is a conceptual paper and the researcher has adopted the method of reviewing different research articles, research journals, and case studies, to collect data about FERA and FEMA which is consequently incorporated as a conceptual paper drafted by the researcher. The study is based on secondary sources of data only.

FERA- THE NAUGHTY ACT

An Act to consolidate and amend the law regulating certain payments, dealings in foreign exchange and securities, transactions indirectly affecting foreign exchange and the import and export of currency, for the conservation of the foreign exchange resources of the country and the proper utilization thereof in the interests of the economic development of the country.

(1) This Act may be called the Foreign Exchange Regulation Act, 1973.

(2) It extends to the whole of India.

(3) It applies also to all citizens of India outside India and to branches and agencies outside India of companies or bodies corporate, registered or incorporated in India.

(4) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint in this behalf:

Provided that different dates may be appointed for different provisions of this Act and any reference in any such provision to the commencement of this Act shall be construed as a reference to the coming into force of that provision.

NEED TO INTRODUCE FERA

a) FERA was introduced at a time when foreign exchange (FOREX) reserves of the country were low, FOREX being a scarce commodity.

b) FERA therefore proceeded on the presumption that all foreign exchange earned by Indian residents rightfully belonged to the Government of India and had to be collected and surrendered to the Reserve bank of India (RBI).

c) It regulated not only transactions in FOREX, but also all financial transactions with non-residents. FERA primarily prohibited all transactions, except to the extent permitted by general or specific permission by RBI.

OBJECTIVES OF FERA

The main objective of the FERA 1973 was to consolidate and amend the law regulating:

- Certain payments;
- Dealings in foreign exchange and securities;
- Transactions, indirectly affecting foreign exchange;
- Import and export of currency, for the conservation of the foreign exchange resources of the country;
- Proper utilization of foreign exchange, so as to promote the economic development of the country.

The basic purpose of FERA was:

- a) To help RBI in maintaining exchange rate stability.
- b) To conserve precious foreign exchange.
- c) To prevent/regulate foreign business in India.

NEED FOR FEMA

The demand for new legislation was basically on two main counts. Firstly, The FERA was introduced in 1974 when India's foreign exchange reserves position was not satisfactory. It required stringent controls to conserve foreign exchange and to utilize in the best interest of the country. Very strict restrictions have outlived their utility in the current changed scenario. Secondly, there was a need to remove the draconian provisions of FERA and have a forward-looking legislation covering foreign exchange matters.

REPEAL OF DRACONIAN PROVISIONS UNDER FERA

The draconian regulations under FERA related to unbridled powers of Enforcement Directorate. These powers enabled Enforcement Directorate to arrest any person, search any premises, seize documents and start proceedings against any person for contravention of FERA or for preparations of contravention of FERA. The contravention under FERA was treated as criminal offence and the burden of proof was on the guilty.

NEED TO SCRAP FERA

a) The Foreign Exchange Regulation Act was replaced by the Foreign Exchange Management Act as it was an impediment in India's to go global.

b) India's foreign exchange transactions were governed under the Foreign Exchange Regulation Act until June 2000. This law had been enacted in 1973 when the Indian economy was facing a crisis and foreign exchange had become a precious commodity. But by the nineties, FERA had outlived its utility and was in fact, an impediment in India's effort to go global and compete with other developing countries.

c) Thus, there was a need to scrap FERA and the Foreign Exchange Management Act, 1999 came into effect on June 1, 2000. However some of the relevant progresses made, from FERA to FEMA, are as follows:

WITHDRAWAL OF FOREIGN EXCHANGE

Now, the restrictions on withdrawal of Foreign Exchange for the purpose of current account transactions, has been removed. However, the Central Government may, in public interest in consultation with the Reserve Bank impose such reasonable restrictions for current account transactions as may be prescribed.

FEMA has also by and large removed the restrictions on transactions in foreign Exchange on account of trade in goods, services except for retaining certain enabling provisions for the Central Government to impose reasonable restriction in public interest.

FEMA - THE NEED OF THE HOUR

The Foreign Exchange Regulation Act of 1973 (FERA) in India was repealed on 1st June, 2000. It was replaced by the **Foreign Exchange Management Act (FEMA)**, which was passed in the winter session of Parliament in 1999. Enacted in 1973, in the backdrop of acute shortage of Foreign Exchange in the country, FERA had a controversial 27 year stint during which many bosses of the Indian Corporate world found themselves at the mercy of the Enforcement Directorate (E.D.). Any offense under FERA was a criminal offense liable to imprisonment, whereas FEMA seeks to make offenses relating to foreign exchange civil offenses. FEMA, which has replaced FERA, had become the need of the hour since FERA had become incompatible with the pro-liberalization policies of the Government of India. FEMA has brought a new management regime of Foreign Exchange consistent with the emerging frame work of the World Trade Organization (WTO). It is another matter that enactment of FEMA also brought with it Prevention of Money Laundering Act, 2002 which came into effect recently from 1st July, 2005 and the heat of which is yet to be felt as "Enforcement Directorate" would be investigating the cases under PMLA too.

Unlike other laws where everything is permitted unless specifically prohibited, under FERA nothing was permitted unless specifically permitted. Hence the tenor and tone of the Act was very drastic. It provided for imprisonment of even a very minor offence. Under FERA, a person was presumed guilty unless he proved himself innocent whereas under other laws, a person is presumed innocent unless he is proven guilty.

OBJECTIVES & EXTENT OF FEMA

The objective of the Act is to consolidate and amend the law relating to foreign exchange with the objective of facilitating external trade and payments and for promoting the orderly development and maintenance of foreign exchange market in India. FEMA extends to the whole of India. It applies to all branches, offices and agencies outside India owned or controlled by a person who is a resident of India and also to any contravention there under committed outside India by any person to whom this Act applies.

Except with the general or special permission of the Reserve Bank of India, no person can:-

- deal in or transfer any foreign exchange or foreign security to any person not being an authorized person;
- make any payment to or for the credit of any person resident outside India in any manner;
- receive otherwise through an authorized person, any payment by order or on behalf of any person resident outside India in any manner;
- reasonable restrictions for current account transactions as may be prescribed.

Any person may sell or draw foreign exchange to or from an authorized person for a capital account transaction. The Reserve Bank may, in consultation with the Central Government, specify :-

- any class or classes of capital account transactions which are permissible;
- the limit up to which foreign exchange shall be admissible for such transactions.

However, the Reserve Bank cannot impose any restriction on the drawing of foreign exchange for payments due on account of amortization of loans or for depreciation of direct investments in the ordinary course of business.

The Reserve Bank can, by regulations, prohibit, restrict or regulate the following -

- Transfer or issue of any foreign security by a person resident in India;
- Transfer or issue of any security by a person resident outside India;
- Transfer or issue of any security or foreign security by any branch, office or agency in India of a person resident outside India;
- Any borrowing or lending in foreign exchange in whatever form or by whatever name called;
- Any borrowing or lending in rupees in whatever form or by whatever name called between a person resident in India and a person resident outside India;
- Deposits between persons resident in India and persons resident outside India;
- Export, import or holding of currency or currency notes;
- Transfer of immovable property outside India, other than a lease not exceeding five years, by a person resident in India;
- Acquisition or transfer of immovable property in India, other than a lease not exceeding five years, by a person resident outside India;
- Giving of a guarantee or surety in respect of any debt, obligation or other liability incurred-
 - i. by a person resident in India and owed to a person resident outside India or
 - ii. by a person resident outside India.

A person, resident in India may hold, own, transfer or invest in foreign currency, foreign security or any immovable property situated outside India if such currency, security or property was acquired, held or owned by such person when he was resident outside India or inherited from a person who was resident outside India.

A person resident outside India may hold, own, transfer or invest in Indian currency, security or any immovable property situated in India if such currency, security or property was acquired, held or owned by such person when he was resident in India or inherited from a person who was resident in India.

The Reserve Bank may, by regulation, prohibit, restrict, or regulate establishment in India of a branch, office or other place of business by a person resident outside India, for carrying on any activity relating to such branch, office or other place of business. Every exporter of goods and services must:-

- Furnish to the Reserve Bank or to such other authority a declaration in such form and in such manner as may be specified, containing true and correct material particulars, including the amount representing the full export value or, if the full export value of the goods is not ascertainable at the time of export, the value which the exporter, having regard to the prevailing market conditions, expects to receive on the sale of the goods in a market outside India;
- Furnish to the Reserve Bank such other information as may be required by the Reserve Bank for the purpose of ensuring the realization of the export proceeds by such exporter. The Reserve Bank may, for the purpose of ensuring that the full export value of the goods or such reduced value of the goods as the Reserve Bank determines, having regard to the prevailing market-conditions, is received without any delay, direct any exporter to comply with such requirements as it deems fit. Where any amount of foreign exchange is due or has accrued to any person resident in India, such person shall take all reasonable steps to realize and repatriate to India such foreign exchange within such period and in such manner as may be specified by the Reserve Bank.

FEMA RULES & POLICIES

The Foreign Exchange Management Act, 1999 (FEMA) came into force with effect from June 1, 2000. With the introduction of the new Act in place of FERA, certain structural changes were brought in. The Act consolidates and amends the law relating to foreign exchange to facilitate external trade and payments, and to promote the orderly development and maintenance of foreign exchange in India.

From the **NRI perspective**, FEMA broadly covers all matters related to foreign exchange, investment avenues for NRIs such as immovable property, bank deposits, government bonds, investment in shares, units and other securities, and foreign direct investment in India.

FEMA vests with the Reserve Bank of India, the sole authority to grant general or special permission for all foreign exchange related activities mentioned above.

Section 2 - The Act here provides clarity on several definitions and terms used in the context of foreign exchange. Starting with the identification of the Non-resident Indian and Persons of Indian origin, it defines "foreign exchange" and "foreign security" in sections 2(n) and 2(o) respectively of the Act. It describes at length the foreign exchange facilities and where one can buy foreign exchange in India. FEMA defines an authorized dealer, and addresses the permissible exchange allowed for a business trip, for studies and medical treatment abroad, forex for foreign travel, the use of an international credit card, and remittance facility

Section 3 prohibits dealings in foreign exchange except through an authorized person. Similarly, without the prior approval of the RBI, no person can make any payment to any person resident outside India in any manner other than that prescribed by it. The Act restricts non-authorized persons from entering into any financial transaction in India as consideration for or in association with acquisition or creation or transfer of a right to acquire any asset outside India.

Section 4 restrains any person resident in India from acquiring, holding, owning, possessing or transferring any foreign exchange, foreign security or any immovable property situated outside India except as specifically provided in the Act.

Section 6 deals with capital account transactions. This section allows a person to draw or sell foreign exchange from or to an authorized person for a capital account transaction. RBI in consultation with the Central Government has issued various regulations on capital account transactions in terms of sub-section (2) and (3) of section 6.

Section 7 covers the export of goods and services. All exporters are required to furnish to the RBI or any other authority, a declaration regarding full export value.

Section 8 puts the responsibility of repatriation on the persons resident in India who have any amount of foreign exchange due or accrued in their favour to get the same realised and repatriated to India within the specific period and in the manner specified by the RBI.

The duties and liabilities of the Authorized Dealers have been dealt with in **Sections 10, 11 and 12**, while **Sections 13 to 15** cover penalties and enforcement of the orders of the Adjudicating Authority as well as the power to compound contraventions under the Act.

IMPACT OF FEMA ON FOREX

Until 1992 all foreign investments in India and the repatriation of foreign capital required previous approval of the government. The Foreign Exchange Regulation Act rarely allowed foreign majority holdings for foreign exchange in India. However, a new foreign investment policy announced in July 1991, declared automatic approval for foreign exchange in India for thirty-four industries. These industries were designated with high priority, up to an equivalent limit of 51%. The foreign exchange market in India is regulated by the Reserve Bank of India through the Exchange Control Department.

Initially the government required that a company's routine approval must rely on identical exports and dividend repatriation, but in May 1992 this requirement of foreign exchange in India was lifted, with an exception to low-priority sectors. In 1994 foreign and non resident Indian investors were permitted to repatriate not only their profits but also their capital for foreign exchange in India. Indian exporters are enjoying the freedom to use their export earnings as they find it suitable. However, transfer of capital abroad by Indian nationals is only allowed in particular circumstances, such as emigration. Foreign exchange in India is automatically made accessible for imports for which import licences are widely used.

Indian authorities are able to manage the exchange rate easily, only because foreign exchange transactions in India are so securely controlled. From 1975 to 1992 the rupee was coupled to a trade-weighted basket of currencies. In February 1992, the Indian government started to make the rupee convertible, and in March 1993 a single floating exchange rate in the market of foreign exchange in India was implemented. In July 1995, Rs 31.81 was worth US\$1, as compared to Rs 7.86 in 1980, Rs 12.37 in 1985 and Rs 17.50 in 1990.

Since the onset of liberalization, foreign exchange markets in India have witnessed explosive growth in trading capacity. The importance of the exchange rate of foreign exchange in India for the Indian economy has also been far greater than ever before. While the Indian government has clearly adopted a flexible exchange rate regime, in practice the rupee is one of most resourceful tracker of the US dollar. The foreign exchange market in India is growing very rapidly, since the annual turnover of the market is more than \$400 billion.

IMPACT OF FEMA ON MONEY SUPPLY

In context of the Indian financial system, the relevant factor is that the increase in foreign currency reserves as a result of the larger foreign inward remittances, lead to increase in money supply; finding its way into the money market and capital market through the banking system. Banks create credit and any inflow into the banking system gets multiplied by a factor. This factor depends on the reserves maintained by banks. If banks maintain an average reserve of 25%, any inflow into the banking system will increase money supply four times.

Similarly, any contraction of funds available with the banks will result in a four-fold reduction in money supply. Increase and decrease in the foreign exchange reserves of the country impact the financial system through increase or decrease in money supply.

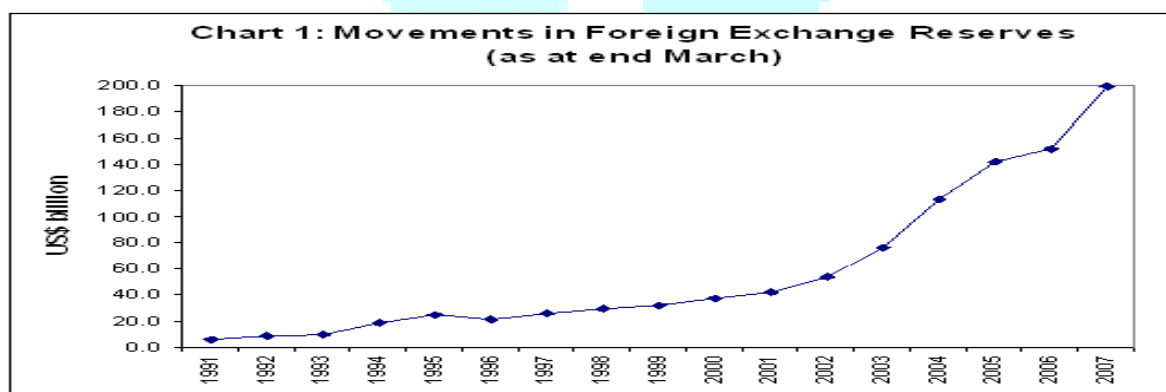
IMPACT OF FEMA ON FOREIGN DIRECT INVESTMENT [FDI] & FOREIGN INSTITUTIONAL INVESTORS [FIIs]

Another aspect of Foreign Exchange market is that apart from flows resulting from personal and trade remittances, banks and corporate borrow funds from abroad and foreign entities invest in Indian business entities, such as Foreign Direct Investment [FDI], foreign funds and Foreign Institutional Investors [FIIs] that invest in the Indian capital markets. These flows are large in magnitude and have a great impact on capital market and the exchange rate.

However, there is also the danger that if FIIs pull out, the stock markets could crash which in turn can adversely impact the economy. This danger is not only on account of the impact of share prices but also because of the impact on exchange rate, which can adversely affect foreign trade and consequently the price level in the country.

CONCLUSION

As a part of the ongoing process of economic liberalization relating to foreign investments and foreign trade in India and as a measure for closer interaction with the world economy the Foreign Exchange Regulation Act, 1973 (FERA) was reviewed in the year 1993 and several amendments were made therein. Further review of the FERA was undertaken by the Central Government of India in the light of subsequent developments and on account of the experience in relation to foreign trade and investment in India, the Central Government felt that instead of further amending the FERA, the better course would be to repeal the existing Act and to enact a new legislation in its place. In view of the same, the RBI was asked to suggest a new legislation based on the report submitted by a task force constituted for this purpose by the RBI recommending substantial changes in FERA. There has been a substantial increase in the Foreign Exchange Reserves of India. Especially after repulsion of FERA in 2000 there has been a tremendous surge in Foreign Exchange Reserves.



Since the year 1993, foreign trade has grown up. Development has taken place such as current account convertibility, liberalization in investments abroad, increased access to external commercial borrowings by Indian Companies and participation by foreign institutional investors in securities markets in India. Keeping in view these changes the Central Government of India has introduced the FEMA to repeal FERA. A marked digression from the general rule that the Accused is presumed to be innocent until proved guilty beyond reasonable doubt, is found in the FEMA. A presumption regarding documents, contained in this Bill is contrary to the general rules of evidence.

For example, when documents pertaining to a crime under FEMA are discovered the Court will presume that the contents of the documents are true and correct and will not go into the question whether the incriminating documents may have been forged. Thus, it becomes the responsibility of the Accused to prove, in case that the documents are fabricated. The main change between FERA and FEMA is in the approach. FERA seeks to regulate almost all the transactions involving foreign exchange and inbound/outbound investments. In FERA every provision is restrictive and starts with a negative proposition stating that whatever is mentioned in that section is prohibited unless the prior permission either general or special, as may be required in the specific case, of RBI is obtained. FERA provides that nothing can be done without RBI's permission. In comparison to this existing negative piece of legislation, the provision of FEMA has a positive approach. This can be found from the provisions of FEMA dealing with capital account transactions which are to be regulated. Unlike FERA which provides that these transactions cannot be entered into without prior permission of RBI, FEMA provides that any person may sell or draw foreign exchange for such transactions and then specifies the powers of the RBI to regulate the class or limits of such capital account transactions. Thus, the basic proposition in the proposed FEMA Bill is positive. FEMA classifies foreign exchange transactions into capital account transactions and current account transactions and amongst

the two regulates the former more closely. Under FEMA residential status will not depend upon the intent of the person to reside in India but would depend upon the exact period of his stay in India. The provisions of the FEMA Bill aims at consolidating and amending the law relating to foreign exchange with the object of facilitating external trade and payments and for promoting the orderly payment and amendments in foreign exchange markets in India. The FEMA Bill empowers the RBI to authorize persons to deal in foreign securities specifying the conditions for the same. It also provides for a person resident in India in holding, owning, transferring or investing in foreign security and for a person resident outside India in holding, owning, transferring or investing in Indian Securities.

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EMERGENCE OF MORAL PRINCIPLES AND ETHICS IN MANAGEMENT EDUCATION**U. PADMAVATHI****PROFESSOR****VISHWA VISHWANI INSTITUTE OF SYSTEMS & MANAGEMENT****HYDERABAD****ABSTRACT**

Morality and ethics matters to protect the Economies, Governments and Corporates from collapse and corruption. Realizing that moral leadership is greatly needed in this world of struggles; the concept has to be promoted in the society and taught to the students and youth from primary education to higher education. It needs people to re-look at teaching pedagogy. This enriched teaching pedagogy can only be practiced by persons with influence, parents, teachers, business leaders and anyone in a leadership position since they would be in a position to bring reformation among the section of people whom they deal in their day to day activities. Morals are something that must be rooted in the character, decisions and actions so that their teaching shall take the shape of clear demonstration, intention and deliberate choices made. Moral education will guide the students to build up the correct outlook towards the world, life, evaluation of circumstances and consistently improve their socialistic consciousness so as to lay a solid foundation for them to become a rising generation having lofty ideas, moral integrity, knowledge, culture, and observing disciplines. The writer would like to focus on the dire need of imparting Morals and Ethics in Management Education, which place a key role in character building of youth as they are carriers of the value system to the future generations. The roles and responsibilities of not only the institution as a whole but also of staff and students could be developed to translate the Millennium Development Goals and sustainable development concerns into action.

KEYWORDS

Morals, Ethics, Higher Education, College Teachers, Students, UGC.

INTRODUCTION

Karachi's Ethnic, political Violence leaves 85 dead"¹. More and more our world is experiencing global crisis and needing leaders to join forces to battle for the greater good. There seems to be continual covering of unethical behavior in business, politics, religion and all areas of society around the world. Enron, in Rwanda, Chernobyl, Satyam in India, were not failure of "technology" but was ethical failure. Governments are everywhere failing morally and ethically and this cynical failure is hidden behind a screen that focuses largely on sexual and personal morality while ignoring the larger crisis that endanger humanity. There is no shortage of leaders making this happen as behind each one of these stories, it lies on a leader who brought about the action and behavior is in question. As there is a dearth in the ethical values of in the governance of Universities, Governments or corporates, in all over the globe, people like Anna Hazare (India), are coming up to put a check on unethical behaviour of administrators at top levels. Sarbanes Oxley Act (US), Combined Code of UK, the proposed Lok Pal Bill, legislative laws of various countries and Religious Scriptures, are trying to put a check on unethical behaviour of politicians/ administrators of Government as well as corporates and brings a "Good Governance" and also in moulding the youth with ethical values, all over the globe.

THE URGENCY FOR CHARACTER EDUCATION

1. *Decline of Family*- The present nuclear families and the employment of both the parents, are creating "moral vacuum" due to the absence of moral teaching in the home. As a result, students are entering the educational system, including colleges and universities, without the benefit of character formation. Formal character building education has become a crucial element in education, at all levels.
2. *Troubling trends in youth character*- Dishonesty, disrespect, violence, bigotry and sexual precocity are on the rise in college campuses today. These trends are harsh reminders that students are living in a "hostile moral environment". In order to combat these trends, educators must help students to develop sound ethical and moral reasoning through intentional character education.
3. *Subjective preferences rather than objectively important ethical values*- The formation of basic values is essential to the development of character. Trustworthiness, respect, responsibility, fairness, caring, and good citizenship are the Six Pillars of Character. These values are being taught merely with subjective preferences rather than objective worth with collective consciences.

STUDENT LIFE

Students on today's campuses encounter a variety of complex situations for which they are often ill-prepared due to lack of experience or individual development. The relationship between students' attitudes and values and the environment that supports or challenges them stands as a dynamic dialectic of confirmation and rejection that affects the ethical positions and choices of both the individual and the institution. The distinctive nature of the institutional ethos affects the values and interests manifested in the campus climate and the overall effect of the college experience on the student.

Issues facing higher education, such as racism, sexism, homophobia, substance abuse, and academic dishonesty, argue for the pursuit of an ethical environment that consistently asserts the importance of human dignity, nourishes growth and achievement, and insists on respect in interpersonal communication and relations. This reminds us the necessity to develop a "Learning Community"

LEARNING COMMUNITY

The learning community can be provisionally construed as an ideal type of higher education culture that seeks to overcome current tendencies towards individual alienation and intellectual fragmentation with regard to present academic specialization and special interests. The learning community does not deny the value of research or the scholar's freedom of inquiry, but, as a moral community, it does seek to organize them within an ethical domain of connectedness and mutual responsibility.

WHY IS THE LEARNING COMMUNITY SO IMPORTANT?

The learning community embraces distinctive ethos, one that is laden with values and sustains the only fitting context for ethical analysis. Based on the curriculum, the learning community addresses many important concerns. The learning community enables faculty who feel isolated by the limits of their discipline and miss the richness they knew so well in graduate school to reach out to other disciplines. At the same time, learning communities address the growing diversity among students in terms of age, race, ethnicity, religion, and marital and enrollment status. Most important, the learning community allows for a wide variety of applications, not simply application in the small liberal arts college.

²"In many ways, the learning community brings together the themes of leadership among faculty, and students. Leadership is essential to Colleges' and Universities' sensitivity to values in higher education. The learning community symbolizes the delicate nature of that task. At the same time, collaboration among faculty in this learning project is of the essence. Such communities can bring out the best in faculty and resolve several of the tensions faculty face in their careers, especially the tension between research and teaching. Community gives direction to students and anchors their collegiate experience in the intellectual life (Astin 1985)". Only such an approach will do justice to the complexity of ethical issues facing higher education.

Philosophers viewed ethics as a system of moral principles and the methods for applying them. It deals with values relating to human conduct with respect to right or wrong of certain actions and goodness and badness of motives and ends of such actions. Ethics is a science of moral, moral principles and recognized rules of conduct. The character of a man/ women can be expressed in terms of conduct or actions. These actions can be 'good' or 'bad', 'right' or 'wrong' or 'moral' or 'immoral'.

Integrity refers to the degree at which ethics and morality are integrated. Integrity is a character muscle which can either be developed or ignored and rarely considered as a last minute decision. It requires discipline. It comes from years of practice or, at the other extreme, years of neglect. Our integrity is shaped not only by our personal decisions, but also by the company we keep. Good character keeps good company.

Ethical decisions are not simplest choices between right or wrong actions, they are complex judgments on the balance between the economic performance and the social performance of an organization. A multiple analysis frame work is to be adopted to strike balance between economic performance and social performance in ethical way, which can be analyzed and adopted at levels that requires knowledge and professionalism, imparted through higher education. According to Ethical Analysis the underlying belief is that if all the rational men and women in a society acted on the same principles of either beneficial or consistency, then the members of that society would be treated as fairly as possible.

Moral choices come from a person's character as well, they do not always come about by rational thinking. With morality formed by different sets of values and principles it is often difficult to truly have agreed upon standards and so moral dilemmas do not always have a clear right and a clear wrong. They also often face a decision where there are two competing goods. One must choose based on the greater good in this case defined by their own principles and standards.³ "The fact that man knows right from wrong proves his intellectual superiority to other creatures; but the fact that he can do wrong proves his moral inferiority to any creature that cannot." (Mark Twain). However, that bad leadership has become more visible - an effect, perhaps, of advances in information technology, the rising influence of civil society, and the empowerment of people everywhere through better education.

⁴One view of morality is based on Kohlberg's framework of moral reasoning. According to Kohlberg, "moral judgments may be defined as judgments of value, as social judgments, and as judgments that oblige an individual to take action." There are three types of reasoners in Kohlberg's theory; pre-conventional, conventional, and post conventional. Pre-conventional reasoners reason according to the self perspective, in that they either ignore or fail to understand social norms, and consequently do not use them in their reasoning process. Conventional reasoners do use these social rules and norms to guide their moral reasoning. Lastly, post conventional reasoners appreciate social rules, but do not explicitly follow them when making moral decisions. Instead, they use the principle behind the social norm to direct their behavior.

One theory on moral development is based on stages. The first stage is called heteronomous morality. In this stage, children believe that rules are constant and that breaking them results in automatic punishment. Additionally, One school of thought opined that a behavior that has negative consequences will be judged as bad and as deserving of punishment even if the intentions behind the action were good. The second stage of morality, called autonomous morality, develops after age 10 or 12. In this stage, children base their moral judgments on the intention behind the act and not just whether there were positive or negative consequences to follow the act. Children understand that rules are man-made and that punishment is not inevitable.

⁵According to domain theory, the child's concepts of morality and social convention emerge out of the child's attempts to account for qualitatively differing forms of social experience associated with these two classes of social events." . . . In Carol Gilligan's theory, boys' sense of morality is based on a sense of justice and people's individual rights. On the other hand, girls' moral reasoning is based on issues of caring and an individual's responsibility for other people. (Slavin, 2006).

One school of thought opined that human beings have a dual nature. One side is centered on the material world concerning basic physical needs, i.e. survival, food, shelter, and creature comforts. The other aspect of human reality is its spiritual side. This aspect, which stems from our God-created rational human soul, engenders love, compassion, and altruism. The Faculty should make their stand for what is good in this world and take every chance to teach and promote treating others how they want to be treated, through demonstration, respect and good judgment of right and wrong in their own moral leadership, to influence the students in right direction. Without this fundamental understanding, efforts to promote morality will fail as they become mired in contemporary ideas about the relativism of values, rationalized by forces of materialistic self-interest, or picked apart by partisan wrangling. However, a proper understanding of the human spiritual reality, which is increasingly confirmed by scientific discoveries, offers a well-illuminated path to leadership that is genuinely moral, that makes compulsion to introduce morals and Ethics in management education.

The new paradigm for administration is that Managers today must be chiefly concerned with giving service to their community/ Corporates, rather than advancing their own ideas, careers or sense of privilege. ⁶To put it another way, the primary characteristic of a moral leader must be "one who serves the community most" rather than "one who dominates the community most." Their main obligation must be to the best interests of the whole, rather than to any particular party, ideology, tribe or corporation or his/her individual benefits, that can be fulfilled through the values added to the managers or administrators, in higher education.

⁷Teaching and Promoting Moral Leadership

Seeing as moral leadership is greatly needed in this world of struggles, it is to be taught to the students and youth and also to encourage people to look at teaching and promoting it. Teaching morals is something done by those with influence, parents, teachers, business leaders and anyone in a leadership position. Morals are something that must be rooted in the character, decisions and actions so that teaching it is a matter of demonstration, intention and deliberate choices and youth could clearly benefit from it but also those around us in our lives and businesses.

⁸Artson School of Finance study of large corporations over a four-year period concluded that "between 15 percent and 25 percent of the variation in profitability was determined by the character of their chief executives." "... sound leadership has a moral foundation".

Some Corporate professionals opined that There is a clear evidence that a good reputation gains a company more customers, better employees, more investors, improved access to credit and greater credibility with Government. The difference between a company with ethical capital and one with an ethical deficit—perceived or real—can even determine their 'license' to operate in some emerging markets.

UGC FRAMES CODE OF ETHICS FOR HIGHER EDUCATION TEACHERS

⁹The new code of professional ethics for higher education teachers by University Grants Commission (UGC) expects the latter to be in regular touch with parents of the students and meet whenever necessary to discuss their performance and growth. The UGC, in the code of ethics has also asked teachers to work as agents of social change as it used to be in the past. Part of the new regulations fixed by the UGC for selection and promotion of teachers, the document also has guidelines as to how teachers should behave with colleagues, non-teaching staff, authorities and most importantly with students. The UGC circular states: "A teacher is constantly under the scrutiny of his students and the society at large. Therefore, every teacher should see that there is no incompatibility between his precepts and practice... teachers should manage their private affairs in a manner consistent with the dignity of the profession, express free and frank opinion as well as participate in extra-curricular activities including community service."

DIMENSIONS OF HIGHER EDUCATION MERIT ATTENTION

Work in academic life, like any other kind of work, is laden with values and has a moral dimension that emerges from the ethical reflection characteristic of institutional self-scrutiny. Students are vulnerable before and unequal to the scholar; trust must characterize faculty-student relationships. Ultimately, however, professorial knowledge is not proprietary but communal, dedicated to the welfare of society through the transmission and extension of knowledge.¹⁰ The role of the scholar can be conceived in four phases: teaching, discovery, application, and integration, each of which has its own ethical assumptions and problems (Boyer 1990). Often the competing needs of these roles cause conflicts for the scholar teacher/researcher. In responding to these problems, the scholar must balance individual with group realities and requirements. An important pedagogical conception to help and achieve the balance is the learning community.

WHAT DIRECTION DOES AN ETHICS OF THE ETHOS PROVIDE?

¹¹The literature detailing the immorality of individual actions or policies underscores a more pervasive problem in higher education: the lack of community and the lack of a sense of shared values that give direction and purpose (Bellah et al. 1985, 19914). ¹²Strategic planning for the future must emphasize the learning community as the institutionalization of a program that responds to concern for values and ethics in higher education (Gabelnick et al. 1990).

¹³Principles and Practices for Promoting Character Development in College, such as: (1) courses have in-depth opportunities for students to reflect on core values and ethical issues, (2) the liberal arts program integrates core values, (3) the institution's core values infuse all academic majors, (4) the institution takes deliberate steps to help students act upon the core values, for example by giving students structured opportunities to develop and practice ethical leadership.

¹⁴Chickering and Reisser (1993) stated that "movement toward integrity means not only increased congruence between behavior and values, but also movement toward responsibility for self and others and the consistent ability to apply thoughtfully ethical principles" (p. 236). Movement along this vector is the crux of developing character, and as students continue to develop integrity throughout college, they gain greater appreciation for character education efforts. Colleges and Universities play a key role in the character education of their students. They recognized the opportunities for character education that are available to colleges through "their catalyzing intellectual, cultural, and social experiences, in fostering principled moral reasoning, in helping students define goodness, truth, and quality, and in encouraging them to actualize their highest ideals" (p. 264). Student affairs professionals, with their commitment to the development of the whole student, have a special obligation to meet the needs of students moving along Chickering's integrity vector through directed, purposeful character education.

¹⁵Schweingruber (1985) suggested seven ways in which student affairs professionals can promote and facilitate character education:

1. Create an environment of trust and mutual respect on campus.
2. Staff should be free to share their own values with students; while they cannot impose their values, they also should not appear to be value-less by adopting a value-neutral position.
3. Be as non-legalistic as possible while working within the confines of the law. Moral development is hampered by an overly legalistic environment.
4. Do not protect students from the consequences of criminal behavior.
5. Allow students to solve the problems they face; practice the art of selective negligence.
6. Support disciplinary processes and sanctions as significant contributors to moral growth.
7. Take advantage of one-on-one time with students.

A course to be designated on Ethics and Values in management education should include:

1. Ethical ideals such as justice, human rights, equality, and "the good life", in light of either ethics given in Mythologies of all religions or the major theories of moral philosophy virtue ethics, natural law etc.
2. Identification and critically evaluation of real-world ethical issues and discuss the individual and societal effects of various choices based on a vision of the good life.
3. Designing the programmes for students to articulate and defend (in oral or written form) a conception of ethical action on an issue.
4. Providing opportunities for students to engage themselves in such activities consistent with the idea of the common good as expressed in the college's mission, in the larger community.
5. Student's learning in the area of ethics, values, and moral reasoning should contain intellectual, affective and behavioral components. It is important to see this as a developmental process. When students take courses in ethics that should challenge them to (a) critically reflect on and understand their values in the context of larger ethical systems, and (b) see issues from a "common good" or more universal perspective, they tend to progress through the levels of moral development.

CONCLUSION

To conclude, it can be said that Community gives direction to students and anchors their collegiate experience in the intellectual and practical life. In many ways, the learning community brings together the themes of leadership, among faculty and students. Only such an approach will do justice to the complexity of ethical issues facing in higher education. Institutions of Management Education are responsible for the eminent education of Ethical Reasoning, and Literacy for their students. Trust must characterize faculty-student relationships. Let us hope that the Universities and the institutes of Management education will play a key role in imparting and restoring ethical values among the present and future generations all over the globe.

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EMPOWERMENT OF WOMEN THROUGH MICROFINANCE: A STUDY IN CHITTOOR DISTRICT

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ABSTRACT

Micro finance has evolved over the past quarter century across India into various operating forms and to a varying degree of success. Micro finance includes basic financial services including small loans, savings accounts, funds transfers and insurance.. One such form of microfinance has been the development of the self-help movement. Based on the concept of "self-help," small groups of women have formed into groups of ten to twenty and operate a savings-first business model where by the member's savings are used to fund loans. The results from these self-help groups (SHGs) are promising and have become a focus of intense examination as it is providing to be an effective method of poverty reduction. The present study is an attempt to analyse the role and performance of SHGs in promoting empowerment of women in Chittoor District of Andhra Pradesh. The study includes broad objectives are to analyses the operating system of SHGs for mobilization of saving, delivery of credit to the needy, management of group funds, repayment of loans, in building up leadership, establishing linkage with banks and examines the social benefits derived by the members. In order to collect and gather primary data, field observation and structured questionnaire survey methods were employed. There are 57,277 SHGs working in Chittoor district. Here the researcher has chosen 15 SHGs from each sample mandal of the district. In total the study covers 80SHGs with 1092members the study reveals that SHGs had set a new agenda for financial intermediation by banks in the form of micro-credit. By the formation of SHGs, credits are demanded for various purposes (domestic, health, festivals, repayment of old debts, investment, etc.). Similarly different economic activities (collection, processing and marketing of minor forest products, individual business, goater, dairy etc.) are undertaken by the SHG members after joining the group. Habits of savings, economic independence, self confidence, social cohesion, asset ownership, freedom from debt, additional employment, etc. benefits are derived by the SHG members and evaluation of the banking linking programme. Thus SHGs are playing a more important economic role. SHGs meet the immediate needs of the women through linking with banks.

KEYWORDS

women empowerment, microfinance, Chittoor district.

INTRODUCTION

The origin of microfinance could be traced back to 1904 in the field of co-operative based credit system by the German Raiffeisen societies as well as Rochdale Pioneers in England similarly the enactment of the co-operative credit society's act, 1904 could be considered as the beginning of micro finance in India. Micro finance define as efforts to improve poor people's access to loans and saving services may be the fastest growing and most widely recognized anti poverty too. Micro finance includes basic financial services including small loans, savings accounts, funds transfers and insurance. A long side non-financial service such as business training Micro finance assists people living in poverty who wouldn't usually qualify for regular banking services because they have no form of collateral or formal identification.

ORIGIN AND CONCEPT OF SELF HELP GROUPS

The origin of SHGs is from the brain child of Grameen Bank of Bangladesh, which was founded by Mohammed Yunus. SHGs were started and formed in 1975. In India NABARD is initiated in 1986-87. But the real effort was taken after 1991-92 from the linkage of SHGs with banks. A Self Help groups (SHGs) are small group of individual members not exceeding 20, voluntarily formed among homogeneous and affinity groups of rural poor, to save and mutually agree to contribute to a common fund to be lent to its members as per group norms and decisions.

DEFINITION OF SHG

As stated by NABARD (1995) SHG is a homogenous group of rural poor voluntarily formed to save whatever amount they can conveniently save out of their earnings and mutually agree to contribute to a common fund from which to lend to members for productive and emergent credit needs.

Singh (1995) conceptualized an SHG as an informal association of individuals which comes together voluntarily for promotion of economic and social objective.

BRIEF PROFILE OF THE STUDY AREA

Chittoor district was constituted on 1st April 1911. It is the southern –most district of Andhra Pradesh (AP) bounded on the north by Ananthapur and Kadapa districts, on the east by Nellore and Chongalpat districts of Tamilnadu on the west by Dharmapuri and Kolar districts of Tamilnadu and Karnataka and on the south by North Arcot district of Tamilnadu. It is divided into three revenue divisions viz., Chittoor, Tirupati and Madanapalli. It is situated between 12° – 37" to 14° – 8" of northern latitude and 78° – 33" to 79° – 55" eastern longitude. The area of district is 15152, sq.kms consisting 1540 revenue villages of which 1500 are inhabited. The population of the district as per 2011 census is 41.70 lakhs (male- 20.83 lakhs and female -20.86lakhs). Density of population is 275 per sq.km. Out of 34787lakhs are rural areas and rest 8788areurban and semi urban areas. Literacy rate in chittoor district is 72.66. male literacy rate is 81.15 female rate is 63.65. the woman population per thousand men is 1002. The climate of the district is dry and healthy. The up land mandals are comparatively cooler than the eastern mandals except Chittoor revenue division where the climate is moderate i.e. westerns mountains plateau is comparatively cooler than eastern natural zone.

TABLE – 1: POPULATION BY SEX IN SAMPLE MANDALS OF CHITTOOR DISTRICT

S.No.	Mandal	House holds	Male	Female	Total	Sex Ratio
1	Kalakada	2377	5331	5035	10366	944
2	Pileru	14686	30941	30883	61824	998
3	Chittoor	15595	34505	33367	67871	967
4	Puthalapattu	11331	23581	23329	46910	989
5	Chandragiri	12481	26807	26244	53051	978
6	Renigunta	10084	21814	20887	43673	957

Source: District statistical hand book.

The population of the selected mandals are shown in Table1' The number of population in kalakada mandal is very low at 10366 while the number of population in chittoor mandal is very high at 67871. The sex ratio is high in pileru mandal low in kalakada mandal. Literacy rate of chittoor district recorded as 72.66 percent as per 2011 census, out of which 81.15 males and females are 63.65 percent

REVIEW OF LITERATURE

Mohammed Yunus, in paper on "Grameen bank, micro credit and millennium Goals" traced the evolution of the idea and practice of micro-credit as pioneered by the Grameen Bank of Bangladesh. He pointed out that over the years the micro-credit programmes have providing a wide range of services to meets the economic and social needs of citizen mostly poor women. He made suggestions for tackling emerging issues of financial self-reliance and institutional sustainability of micro-credit programmes. In Das, in her article "Micro-finance through SHGs, A Boon for the Rural poor", points out that easy access of the poor to credit is the biggest need of the hour rather than cheaper rate of interest. Micro-finance provides opportunity to the poor for getting sufficient amount of credit easily to start any income- generating activity. She pointed out that micro finance not only deals with the credit part, but also deals with the savings and insurance part. It ensures the right to save and is one of the most powerful weapons, which works for bringing the rural poor into the mainstream. B Malleswari (2009) in her thesis entitled "Microfinance programmes and women empowerment" assess the impact of micro finance on respondents, evaluated the repayment behaviour and participation of women beneficiaries in decision-making. For the purpose of study 36SHGs and 360 SHG members and a control group consisting of 90 members were taken as sample. Major observations of the thesis being, improvement in savings, employment and participation in decision making among SHG members. YjanaBhavanand Sansad Marg (2008) for their study on "A report on the success and failure of SHGs in India –impediments and paradigm of success" took a sample of 2064 SHGs from five states on random basis. Based on the observations made in the study, they recommended that a lot more publicity to be given among the potential beneficiaries about the scheme and its contents a well as the authorities in charge and responsibilities so that the targeted population can seek help and question authorities if they fail to deliver and economic activities have to undertaken after feasibility report based on market studies and local resources.

IMPORTANCE OF THE STUDY

Micro- finance through SHGs programmes are well recognized world over as an effective tool for poverty alleviation and improving socio-economic status of rural poor in India too. Micro-finance is making head way in its effort for reducing poverty and empowering rural women.

OBJECTIVES OF THE STUDY

The objectives of the study are to examine the role and performance of SHGs in promoting women's empowerment in the study area. However, the study has some specific objectives. They are:

- To analyse the economic gains derived by the members after joining the SHGs.
- To examine the social benefits derived by the members.
- To assess the impact of micro finance on respondents in terms of income generation, Employment creation, expenditure patterns, savings and asset holdings.
- To evaluate the Banking Linking programme

DATA COLLECTION SOURCES

The study is based on both the secondary and primary sources of data. In order to collect and gather primary data, field observation and structured questionnaire survey methods were employed. In addition, information was also collected through discussions and interviews with local NGOs and government's grass roots level workers. Secondary data gathered from the records of SHGs and Society for Elimination of Rural Poverty (SERP), district rural development agency, District Statistical Hand Book, director census operation, Govt. of AP Hyderabad and websites.

SAMPLE DESIGN

Multi-stage stratified random sampling technique used in the study. Mandal is the sampling unit in the first stage, SHG bank branch in the second stage, and SHG in the final stage. Chittoor district is broadly divided in to three revenue divisions, namely Tirupati, Chittoor and Madanapalli. Two mandals from each revenue division are purposely selected. There are nearly 2000 groups promoted by SGB (Saptagiri Grameena Bank) from six branches. The researcher has chosen 3SHGs from each 6bank branches are selected; giving a sample of 18 SHGs.10SHG members from each of 18 SHGs are drawn as member sampling units, resulting on SHG member sample of 180. .

TABLE 2: SAMPLING FRAME OF THE STUDY

Mandals	Universe SHGs	Sample SHGs	Universe SHG members	Sample SHG members
Kalakada	300	3	3015	30
Pileru	600	3	6000	30
Chittoor	600	3	6000	30
Puthalapattu	200	3	2250	30
Chandragiri	220	3	2535	30
Renigunta	100	3	1015	30
Total	2020	18	20815	180

Source: Field survey

PROFILE OF SHG MEMBERS

The average age of SHG members in the study area is presented in Table 3. it is observed that the average age of SHG members was 37 years, minimum is 24years and maximum is 55years.Regarding the caste profile of SHG members, the table shows that majority of members belong to backward castes. The occupation of the members are concerned, majority of them are engaged in agricultural activities.

TABLE 3: PROFILE OF SHG MEMBERS

s.no	dimension	Kalakada		Pileru		Chittoor		Puthalapattu		Chandragiri		Renigunta	
		survey results	%ge	survey results	%ge	survey results	%ge	survey results	%ge	survey results	%ge	survey results	%ge
1.	Age group(in years)												
	a.upto30	11	37	5	16	7	21	5	16	6	20	10	33
	b.30to40	10	33	9	30	11	37	16	54	10	33	07	23
	c.40to50	6	20	12	40	8	27	8	27	11	37	08	27
	d.above50	3	10	4	14	4	14	1	3	3	10	05	17
	Subtotal(atod)	30	100	30	100	30	100	30	100	30	100	30	100
2.	community												
	a.ST	3	10	3	10	3	10	3	10	3	10	3	10
	b.SC	5	17	5	17	5	17	5	17	5	17	5	17
	c.OC	9	30	9	30	9	30	9	30	9	30	9	30
	d.BC	11	37	11	37	11	37	11	37	11	37	11	37
	e.Minority	2	06	2	06	2	06	2	06	2	06	2	06
	Subtotal (a toe)	30	100	30	100	30	100	30	100	30	100	30	100
3.	occupation												
	a. Farmers	11	37	6	20	8	27	13	43	11	37	10	33
	b.Agriculture labour	7	23	5	17	7	23	7	23	8	27	7	23
	c.NonAgriculture labour	6	20	6	20	7	23	5	17	6	20	9	30
	d.Others	6	20	13	43	8	27	5	17	5	16	4	14
	Subtotal (atod)	30	100	30	100	30	100	30	100	30	100	30	100

LOAN SUPPORT BY BANKS TO SHGs

There is a bank linkage programme established to SHGs. The SHG members opened their accounts in various nationalised banks such as State Bank of India, Indian Bank, Bank of Baroda, Union Bank of India, Andhra Bank, etc. and also some local banks like Saptagiri Grameena Bank and Cooperative Banks.

SHG members are getting both internal loans and external loans under the security of NGO. They are also maintaining cashbook, membership register, loan register, individual passbook register, etc. They are taking loans for both production and consumption purposes. Saptagiri Grameena Bank has advanced loans of Rs. 27.5lakhs to Chittoor mandal followed by Rs. 20lakhs to Pileru mandal (Table 6). So far as loan repayment is concerned, the SHG members of all mandals is more than 90percent, there fore loan repayment is very good.

TABLE 4: LOAN SUPPORT TO SHGS FROM SAPTAGIRI GRAMEENA BANK (in percentages)

Name of the mandal	Total SHGs	Loan availed(lakhs)	Loan Repayment
Kalakada	15	75	96%
Pileru	15	63	97%
Chittoor	20	80	98%
Puthalapattu	10	56	91%
Chandragiri	15	67	92%
Renigunta	05	16	96%

Source: Field survey

PURPOSES OF RAISING LOANS

Generally, after six months operation of savings account, the saving is pooled and used for internal lending among the members. The amount of loan and number of loans are decided by the members themselves depending on their need and urgency.

TABLE 5: PURPOSES OF RAISING LOANS BY SHG MEMBERS (in percentages)

Purpose	Kalakada	Pileru	Chittoor	Puthalapattu	Chandragiri	Renigunta	Over all
Domestic consumption	47.69	36.45	36.38	44.69	36.58	48.12	41.65
Health	05.14	06.32	08.12	06.25	04.56	06.02	06.06
Education	09.35	08.26	10.65	09.65	07.36	09.25	09.08
Repayment of old debts	13.89	10.66	11.52	09.58	11.25	10.32	11.20
Investment	10.89	12.57	11.66	14.05	11.56	08.56	11.54
Others	13.04	25.74	21.67	15.78	28.69	17.73	20.47
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Field survey

The purpose-wise credit demanded by the SHG members is given in Table 4. It is observed that most of the members have demanded credit for domestic consumption purposes. It is highest in Renigunta mandal (48.12) followed by kalakada mandal (47.69). Reasonable proportions of SHG members have demanded credit for other purposes. This percentage is highest in Chandragiri mandal (28.69) and lowest in kalakada mandal (13.04). About 11.54 percentage of credit is demanded for investment purposes. A proportion of credit was demanded by the SHG members for payment of old debts. A less proportion of loan is availed for education and health purposes. It is clear that a larger share of credit demanded by SHG members is being utilised for domestic consumption purposes, more than the repayment of debts and others.

ECONOMIC ACTIVITIES COVERED BY SHG MEMBERS

Table 6 reveals that most of the SHG members are engaged in dairy goatery, and poultry business. Some of the members are engaged in individual businesses like preparing pickle, bodi, papad, haldi powder, wax, making bags, vegetable business, tailoring, pan shop etc.. Some are engaged in other activities. As there is a good demand for milk products, they are preparing sweets with milk, ghee, etc. and are getting good price. They earn about Rs. 1500 to Rs.1800per month through these activities.

TABLE 6: ECONOMIC ACTIVITIES COVERED BY THE SHG MEMBERS (in percentages)

Item	Kalakada	Pileru	Chittoor	Puthalapattu	Chandragiri	Renigunta	Over all
dairy	55.25	34.21	30.36	55.25	46.23	45.26	44.42
goatery	24.26	16.35	19.20	21.04	11.65	12.36	17.47
Individual Business	10.49	38.42	42.38	13.39	24.12	33.26	27.00
Others	10.00	11.02	08.06	10.32	18.00	09.12	11.11
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Field survey

BENEFITS DERIVED BY SHG MEMBERS

Variety of benefits is derived by the members of SHGs as presented

TABLE 7: BENEFITS DERIVED BY SHG MEMBERS (MULTIPLE RESPONSES) (in percentages)

Benefits	Kalakada	Pileru	Chittoor	Puthalapattu	Chandragiri	Renigunta	Over all
savings	75.44	79.11	68.22	76.66	80.66	76.00	76.01
Income generation	72.00	69.00	65.23	58.00	86.52	65.00	69.34
Confidence levels	80.00	80.65	82.35	78.69	79.26	81.54	80.41
Awareness of better health	70.00	80.52	71.25	68.88	85.00	74.12	74.94
Assets acquire	48.25	52.34	24.25	51.22	54.63	52.14	47.13
Clear off old debt	65.32	54.26	48.21	58.26	49.65	50.21	54.31
Additional employment	21.36	23.25	32.12	14.26	29.23	30.15	25.06

Source: Field survey

One of the outstanding benefits reported by all the members is the development of self-confidence (80.41%) ranked first, followed by savings habit (76.01%), economic independence (69.34%), social cohesion (74.94%), freedom from debt (54.31%), asset ownership (47.13%), additional employment (25.06%).

EVALUATION OF THE LINKAGE PROGRAM

- Dependency on money lenders reduced
- Savings habit enhanced / increased
- Self sufficiency for consumption requirements attained.
- 80% of the total SHGs have accessed financial assistance from banks.
- Repayment of SHG loans is above 95%.
- Diversification and value addition to the existing activities.
- SHG women are engaged in 450 varieties of income generating activities.
- SHG women are producing qualitative products with high standards in packing, etc.
- SHG women earning additional monthly incomes ranges from Rs.2000/- to 3000/-
- SHG women actively participating in several government welfare programs such as family welfare, literacy etc.,
- SHG women under taking government works such as stitching & supply of Uniforms, bags, Caps etc.
- SHG women are able to supply SHG products to national and international markets.
- Has developed self confidence and leadership qualities

The issue of extending loans to SHGs under SHG Bank-Linkage program since 1998-99 created a path for their economic empowerment. The income generating activities taken up by the SHGs and access to the banks and financial institutions attracted the attention of not only other States but at international level also. Many dignitaries from other states and other countries visited Andhra Pradesh and praised the SHG movement and implementation of SHG-Bank Linkage program in Andhra Pradesh. The other State governments are also taking the practice as a model and are sending teams to study the implementation of the program with an aim to implement in the same way in their states.

CONCLUSION

Based on the interviews and discussions with the group members, field workers of the local NGO and group questionnaire survey results, it is found that the operational efficiency and group dynamics of the SHG is not same in all branches. This could be attributed to several factors like background of SHG formation, internal problem, support provided by the promoters, effective leadership. The members opined that they have joined the group in order to earn more income, promote savings habits and to develop collective economic and social activities. The SHG disbursed loans both for consumption and production purposes. Purpose-wise disbursement of credit by SHG indicates that, domestic consumption received maximum share. The members have invested the loan in different economic activities like broom making, khalli stitching (leaf-plates), preparing eatables like bodi, papad, etc. They are also engaged in poultry, dairy and goatery business. In chittoor mandal, the members are preparing milk products like sweets, ghee, khoa, etc. and getting good price. Members perceived several benefits through their membership in SHGs such as economic independence and self-confidence, promotion of savings habits, social cohesion and freedom from debt. The study also reveals that SHGs had set a new agenda for financial intermediation by banks in the form of micro-credit. It has infused dynamism among its members to climb up socio-economic ladder in the development process. Thus, SHGs have served the cause of women empowerment, social solidarity and socio-economic betterment of the poor for their consolidation. Linkage programme reduces dependency on money lenders and also increase savings habit. Repayment of SHG loans is above 95 %. SHG women are producing qualitative products with high standards in packing, etc. SHG women earning additional monthly incomes ranges from Rs.2000/- to 3000/- . SHG women actively participating in several government welfare programs such as family welfare, literacy etc. SHG women under taking government works such as stitching & supply of Uniforms, bags, Caps etc. SHG women are able to supply SHG products to national and international markets.

SUGGESTIONS

Considering the findings of the study, the following suggestions are offered:

1. Bank needs to insist on micro-credit plans for the SHGs for proper appraisal of the SHG Loans.
2. The bankers should ensure that the loans that they provide should be put to right use.
3. Care should be taken to see that the credit is used for the purposes mentions in the actual plan submitted in bank.

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THE IMPACT OF MACROECONOMIC VARIABLES ON STOCK MARKET INDEX: AN EMPIRICAL STUDY

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ABSTRACT

The Stock Markets are termed as leading economic Indicators as they indicate what is going to happen to the economy in near future. The returns generated in the Stock Market are based on future expectations, Understanding the dynamics of the Stock Market is important for an investor and the dynamics of Stock Market are influenced by micro- as well as macro-economic variables. Though it is easy to understand the microeconomic variables, understanding the impact of macroeconomic variables on Stock Market poses some difficulty. This paper “The Impact of Macroeconomic Variables on Stock Market Index- an Empirical Study” examines the of macroeconomic Variables such as GDP, Inflation, Unemployment, Prime Lending Rate & Exchange Rates (USDINR) over a period starting from 2006 to 2012 on the performance of Stock Market. The prime objective of this study is to explore the direction and strength of relationship between macroeconomic variables and Stock Market Index, thereby discerning their impact of the former on the latter. The study also seeks to identify the major events that led to sharp changes in Stock Market Index. Towards the end, an attempt has been made to rank macroeconomic variables based on their impact on Stock Market Index.

KEYWORDS

GDP, Inflation, Unemployment, Prime Lending Rate (PLR), Exchange Rate (USDINR) and Stock Market.

INTRODUCTION

Understanding the Stock Market along with the factors that would influence is very important for any investor and for the economy. The increasing business sense in the people has led to the explosion of businesses. As a corollary, businesses need more and more money to cater to the increasing needs of customers. The need for money has led to the emergence of publicly-held companies which are financed by investors. The total money required, called capital or share capital, has been divided into small denominations called stocks and issued to the people who are willing to make investment in the company. Since the stocks are redeemable only at the liquidation of the company, an active secondary market, called *Stock Market*, has been developed wherein the shares are transferred from present stockholder to the potential stock holder. The price at which this transfer is affected is called *market price* of the stock.

As the economic theory goes, the price of any product is determined by the inter-play of the demand and supply forces. Applying the same test to Stock Market, the *market price* of the stock is supposed to be determined by the demand and supply forces. However, the demand and supply forces are dictated by investor preferences. Any rational investor's preference is guided by micro- as well as macro-economic factors.

Stock Market Index is the most important indices of all, as it measures overall market sentiment through a set of stocks that are representative of the market. The Stock Market index is a barometer of the market behavior. It reflects the market direction & indicates day to day fluctuations in Stock prices.

This paper attempts to explore the nature and strength of relationship between the Stock Index and macro-economic variables. Given the paucity of time; only important macroeconomic variables have been chosen for the study. They are *GDP, Inflation, Unemployment rate, Prime-Lending rate and USD-INR exchange rate*.

REVIEW OF LITERATURE**FIRST SCHOOL OF THOUGHT**

Chowhan, P.K. et al. (2000) have tried to fetch reasons for turbulence in stock market in the short run in India taking into account SENSEX as the main index. As recently from 1998-2000 markets have shown extremely erratic movements, which are in no way tandem with the information that was fed to them. Stock price fluctuations were very wide and investor optimism had led to chaos in the markets. They have explained that what could be the possible reasons behind this volatility and how it can't be explained even with Efficient Market Hypothesis (EMH) put forward by Fama. They have tried to find that how SENSEX which stood at 2761 on 21st of October 1998 rose to 6000 in February 2000, i.e., 117% increment in just 15 months, which is not at all strongly supported by fundamental economic factors in these years as Indian economy grew by just 5.9% in 1999-2000, although corporate profits have increased by 32% for the year, and overall growth rate of industrial production in April-December 1999 was 6.2%, and also there was fall in inflation rate in 1999 and 2000 which had fallen to 2.9% from the peak 8.8% in September 1998. Exports for this period had also increased in dollar terms.

By 12.9% and imports increased by 9% in April-December 1999. As per the results of this paper, even long run economic factors don't support such a spike in stock prices. A look at the gross domestic savings also did not show any dramatic increase in the last few years. Such a trend was noted not just in Indian stock markets but word wide. And possible reasons that they have found for the hyper boom in the markets are: (i) Information Boom; (ii) IT Revolution; (iii) Internet Myth; (iv) Feedback effect; (v) Cultural changes. In addition these various stock market regulations like Dematerialization and Rolling Statement are equally responsible for the same.

SECOND SCHOOL OF THOUGHT

In an attempt by Black (2001), by using 54year quarterly data and a VAR model underpinned by a theoretical framework describing the relationship between U.S. stock prices and macro economic variables. It analyses the extent to which US stock prices deviate from economy wide fundamentals. Focusing on real output and using a present value approach, he has derived the fundamental price-output ratio and the fundamental stock price under various assumptions regarding the time-variability of returns, and to compare these to actual data. Black (2001) considered three cases; starting by assuming that the return required by the wealth holders is constant and then relax this assumption by first, allowing the risk-free rate to vary over time and second the risk premium to be time varying, with time varying risk model producing a series for fundamental prices which is closest to actual. Despite the differences between models results, all imply that since 1996 the stock market has been relatively overvalued compared to its value warranted by the expected growth rates. In US, the ratio of stock market capitalization to GDP has tripled in last 25years, out of which less than 30% is contributed in the mid 1970s to over 80% in the late 1990s. It's not just that stock market has grown since 1990s but its inter-relation with the real economy also has seemed to become stronger and thus widely acknowledged. In literature, stock market has been related by real economic variables by various approaches, one of which is asset pricing perspective in which Arbitrage Pricing Theory is

used as framework to study the effects of macroeconomic events on stock prices addressing the query that whether risk associated with some macro economic variables is reflected in expected asset returns. There is also consumption – CAPM analysis of consumption which concentrates on a single macro variable influence. Also many studies have been done to study the nature of relationship between stock prices and investment inquiring if stock prices are just a veil over the real part of the economy which can be dispensed with or do they have any significance.

More recently, many studies have come up studying the bilateral relationship between stock prices and macro economic variables using VAR models as the framework, without any specific theoretical structure.

NEED FOR THE STUDY

The financial system plays a critical role in the economic growth of the country. The formal financial system consists of financial institutions, financial markets & financial instruments. A financial market is an institution or arrangement that facilitates the exchange of financial instruments. They are a mechanism for the exchange trading of financial products under a policy framework.

Stock Market is an important component of financial markets. It is a secondary market in which existing securities are resold & traded. Returns in the stock market depend on various macro economic factors. The favorable macroeconomic factors help the firms to earn higher returns which in turn create conditions for the secondary market. These changes in turn influence the market price of the stock.

The stock market index is a barometer of market behavior. It indicates day to day fluctuations in the stock prices. Stock index is measure of a nation's economic health as market prices reflect expectations about economy's performance. This paper attempts to empirically examine the impact of key macro economic variables such as GDP, Inflation, Unemployment rate, Prime-Lending rate and USD-INR exchange rate on Stock Market Index hence this study is important.

OBJECTIVES OF THE STUDY

- To study in general the events that impact the Stock Market in particular and the economy in general.
- To study the direction and strength of relationship between Stock Market Index and Macroeconomic variables.
- To identify various facts that has resulted in the movements of Macroeconomic variables and their reflection on Stock Market.
- To rank the macroeconomic variables in terms of their influence on Stock Market.

RESEARCH METHODOLOGY

The research revolves around discerning the relationship between the Stock Market and macroeconomic variables. The former is represented by BSE Sensex and the latter is represented by five prominent variables- GDP, Inflation Rate, Unemployment rate, PLR, Exchange rate. The relationship has been unearthed for the intervening period between 1st April 2006 and 31st March 2012.

The above mentioned macroeconomic variables were selected conveniently considering them to be the upfront in the economy. The data used in the research are historical and were collected through secondary sources such as E-journals, Websites and Newspaper. Correlation has been used to study the nature of relationship that the macroeconomic variable and Stock Market share mutually.

However, the study is not without shortcomings. The study is confined to only five prominent macroeconomic variables and the impact of other macroeconomic variables has not been considered. The Exchange Rate is quoted only in \$ and other prominent exchange rate of rupee with Pound, Euro. Complex theories have been blissfully avoided to protect the reader for being confounded.

SOURCES OF DATA

This study is mainly based on secondary data collected from books, journals, annual reports of RBI & various websites

RESULTS & DISCUSSIONS

The below tables indicates the analysis of the relationship between each Macroeconomic Variables and Stock Market for the period of 7 years.

TABLE 1: RELATIONSHIP BETWEEN GDP & STOCK MARKET

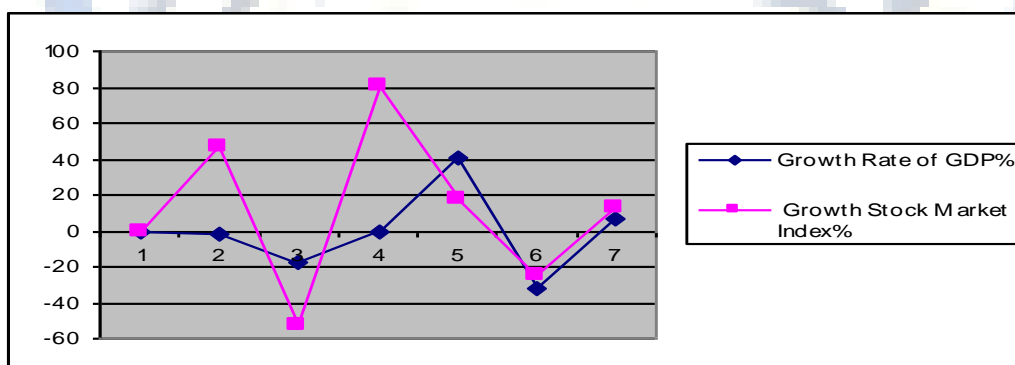
Year	GDP %	Growth Rate of GDP%	Growth	Stock Market Index
			Stock Market Index%	
2006	9.2	Base	Base	13,787
2007	9	-2.17	47.15	20,287
2008	7.4	-17.78	-52.45	9,647
2009	7.4	0	81.03	17,465
2010	10.4	40.54	17.43	20,509
2011	7	-32.69	-24.64	15,455
2012	7.5	7.14	13.14	17,486

(Source: BSE website and Trading Economics website)

TABLE 1.1: CORRELATION BETWEEN GDP & STOCK MARKET

Correlation	Stock Market	GDP
Stock Market	1	0.4160
GDP	0.4160	1

TABLE 1.2: GRAPHICAL REPRESENTATION OF CHANGE IN PERCENTAGE OF GROWTH RATE



ANALYSIS OF CORRELATION

The correlation value has been derived between GDP and Stock Market is 0.4160 or 41.60%, **which implies that there is a positive relationship between GDP and Stock Market.** It implies that GDP and stock market move in the same direction and out of 100 instances, in 41.6 instances, these two variables move together.

INTERPRETATION

It is evident that there is a reasonably strong relationship between the GDP and Stock Market from value derived by the correlation.

The year 2006 registered a GDP growth rate of 9.2 %, higher than those of the previous years. This can be attributed to spur in mining, manufacturing and service sectors, which helped offset the slower growth in agriculture sector. This spurt in GDP manifested in the rise in the Stock Market closing to 13787 points. The GDP was consistent in the year 2007. However in the year 2008 and 2009 the GDP as well as the Stock Market dipped to greater extent, thanks to the recession engendered by sub-prime lending in USA. The recession negatively impacted stock market performance. The problem was aggravated by severe drought in the year 2009, which hit almost half the country, reducing food grain production by 16 million tones. This reduced contribution of agriculture to GDP. The year 2010 evidenced momentum in terms of GDP and Stock Market. It registered GDP at 10.4% and Stock Market at 20509 points. This rise can be attributed to good monsoon. The agriculture output was around 234 million with a growth rate 6.83 % over 2009. This favorable state was buttressed by a tremendous growth of 14% in IT services in particular and 53.77% in Service sector in general. Industrial sector contributed 29.1%. Thus Stock Market grew. In the year 2011 the major reason for decline in Stock Market was European sovereign debt crisis (Debt crisis: Financial crisis that has made it difficult or impossible for some countries in the euro area to re-finance their government debt without the assistance of third parties). The US credit rating was downgraded. It reflected upon India's credit standing which manifested in the down grading of credit rating of India from BBB+ TO BBB- by S&P (March, 2009). This led to fall in Stock Market compared to the previous month.

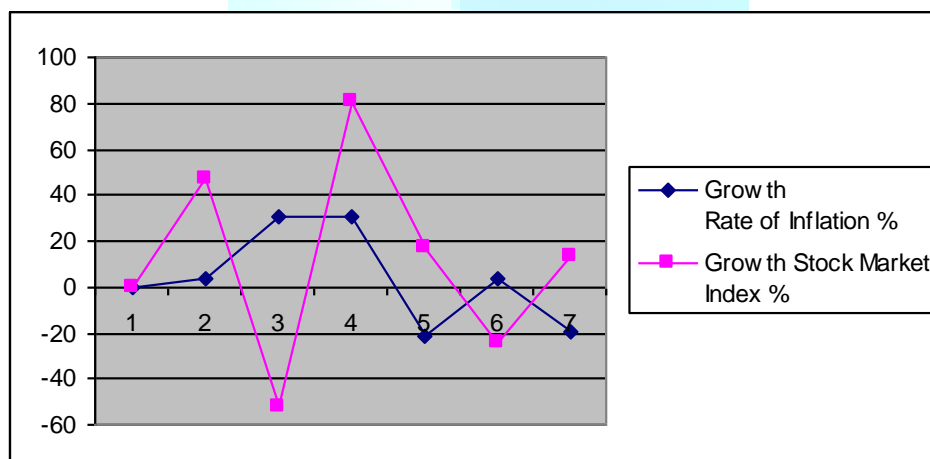
TABLE 2: IMPACT OF INFLATION ON STOCK MARKET

Year	Inflation Rate %	Growth Rate of Inflation %	Growth	Stock Market Index
			Stock Market Index %	
2006	6.16	0	0	13,787
2007	6.38	3.57	47.15	20,287
2008	8.32	30.41	-52.45	9,647
2009	10.83	30.17	81.03	17,465
2010	8.53	-21.24	17.43	20,509
2011	8.87	3.99	-24.64	15,455
2012	7.18	-19.05	13.14	17,486

(Source: BSE website and Trading Economics website)

TABLE 2.1: CORRELATION BETWEEN INFLATION & STOCK MARKET

Correlation	Stock Market	Inflation
Stock Market	1	-0.0047
Inflation	-0.0047	1

TABLE 2.2: GRAPHICAL REPRESENTATION OF CHANGE IN PERCENTAGE OF GROWTH RATE**ANALYSIS OF CORRELATION**

The correlation value derived between Inflation and Stock Market is -0.0047 or

-0.47%, which **implies a negative relationship between Inflation and Stock Market to the extent of -0.47%.**

Hence it can be inferred from the above correlation value is that, the Inflation and Stock Market moves in the opposite direction to the extent of -0.47%.

INTERPRETATION

It is evident that there is a less significant relationship between the Inflation rate and Stock Market, from the negative value derived by the correlation.

In the year 2006 the Inflation rate was 6.16%. This had a rippling effect that caused a dip/ depreciation in the Rupee rate against US dollar at Rs 45.40/\$ and made the commodities like gold, silver, zinc, Cotton, etc costly. This lowered the SENSEX to 13787 points. The year 2007 witnessed growth of inflation by 3.57% over those of previous years but on the other side even SENSEX grew by 47.15% compared to previous year but not at the speed expected because of the negative effect of Inflation.

The year 2008 witnessed global economic meltdown which had two-fold negative effect – on the one hand, it made products dearer and the demand for products declined, thanks to the fall in disposable income with people. This hiked the inflation to 8.32% and pushed down SENSEX to 9647 points, an all-time low among years from 2006 to 2012.

Even though the year 2009 had after-effects of recession but Stock Market could manage to grow by 81.03 % marking at 17465 points.

The year 2010 and 2011 had good rain fall and there was increase in the output from the agriculture, industry and service sectors put together; the banks had lowered the corporate lending rates to 12.4 %; expanded the investments, this can be justified from an RBI-sponsored study on Business Expectation Index (BEI) that showed, seasonal moderation from 120.6 in Q4 of 2009-10 to 119.8 in Q1 of 2010-11, it was much higher in relation to the level of 96.4 a year ago.

The inflation rate for the year 2012 came down and expanded the Stock Markets, the predominant reasons were the steps taken by RBI on lowering the Repo rates and the Reverse Repo rates to 8% from 8.5%. This was one of the factors that lowered the inflation rate to 7.18% and secondly the Inflation in the items

including metals, iron and steel and transport equipment and machinery has eased / got lowered over the past few months. On the other side the banks lowered their lending rates that increased the investments in Stock Market and raised it to 17486 points.

TABLE 3: IMPACT OF PLR ON STOCK MARKET

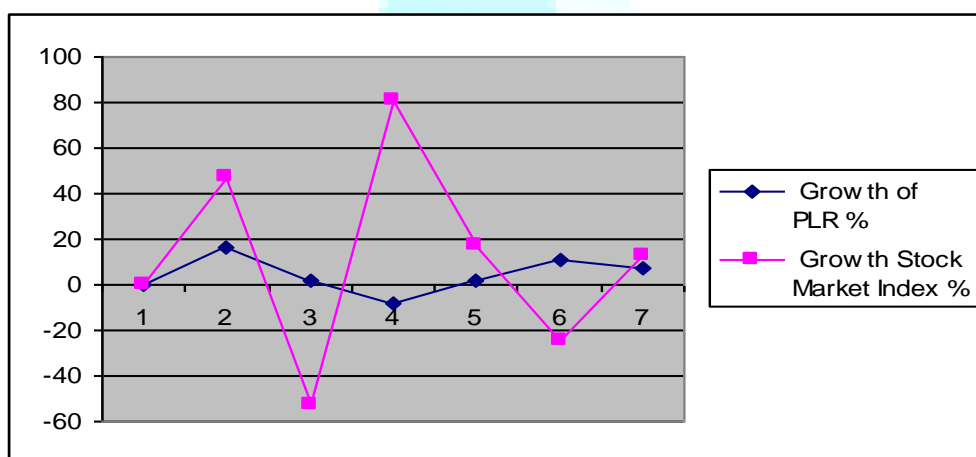
Year	PLR%	Growth of PLR %	Growth Stock Market Index %	Stock Market Index
2006	11.19	0	0	13,787
2007	13.02	16.35	47.15	20,287
2008	13.31	2.23	-52.45	9,647
2009	12.19	-8.41	81.03	17,465
2010	12.4	1.72	17.43	20,509
2011	13.7	10.48	-24.64	15,455
2012	14.75	7.66	13.14	17,486

(Source: BSE website and Trading Economics website)

TABLE 3.1: CORRELATION BETWEEN PLR & STOCK MARKET

Correlation	Stock Market	Prime Lending Rate
Stock Market	1	-0.2382
Prime Lending Rate	-0.2382	1

TABLE 3.2: GRAPHICAL REPRESENTATION OF CHANGE IN PERCENTAGE OF GROWTH RATE



ANALYSIS OF CORRELATION

The correlation value deduced between PLR and Stock Market is **-0.2382** or -23.82%, which implies that there is a *significant negative relationship between Prime Lending Rate and Stock Market*.

Hence it can be inferred from the above correlation value is that, the Prime Lending Rate and Stock Market moves in the opposite direction to the extent of -23.82%.

INTERPRETATION

It is evident that there is a significant negative relationship between the PLR and Stock Market, from the value derived by the correlation.

The PLR for the year 2006 is 11.19% and when we read through the historical data say, from 2004-2007 (i.e. 10.92%, 10.75%, 11.19% & 13.02%) we have seen fluctuations year on year. In the year 2009 the PLR stood at 12.19 % from 13.31 % of previous year, as the former finance minister Mr. **Pranab Mukerjee** (the current President of India) had requested the Public Sector banks to reduce the PLR with the view to improve the credit and stimulate the economic growth which can be correlated to the growth of Stock Market with 17465 points, so there is a significant impact by PLR on the above mentioned year. In the year 2010 the old system BPLR (Benchmark Prime Lending Rate) introduced to create transparency and basis for fixing the pricing for other loan products failed with its objective and hence BPLR came into existence from July 1, 2010 and there was rise in the repo and bank rate by 275 and 375 basis points by RBI. Later the central bank increased the PLR to 12.4%. In the year 2011 the PLR was marked at 13.7 % which is higher than that of last ten years and it pushed the Stock Market down to 15455 points, the probable reason for the increase in the PLR could be the rising trend in Inflation (9.3%, 9.41%, 9.72%, 9.1%) and the shrinking liquidity in the domestic market on the one hand, and raising of the bank rate to 7% and repo rate to 8% by RBI on the other. This influenced the Stock Market by making borrowings costly for the investors. And this marked the Stock Market at 15455. In 2012, there was rising trend in the inflation month-on-month basis resulted in the banks increasing PLR rates.

TABLE 4: RELATIONSHIP BETWEEN UNEMPLOYMENT AND STOCK MARKET

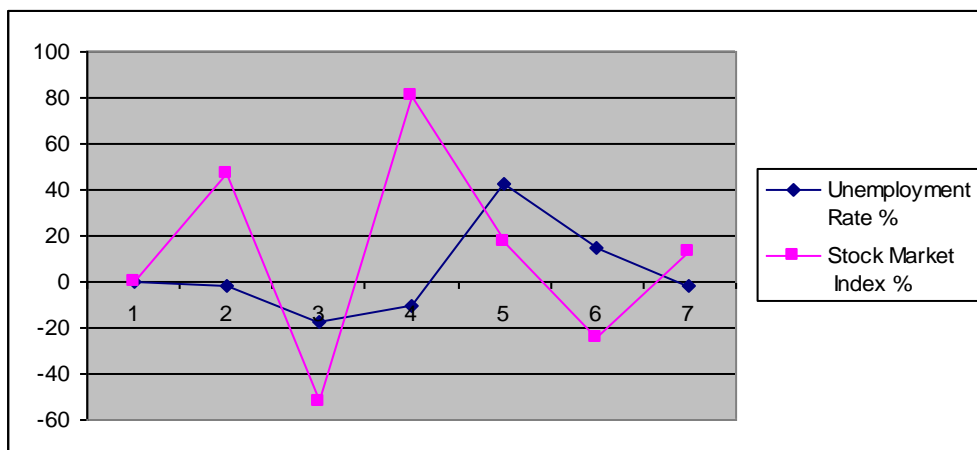
Year	Unemployment Rate%	Growth rate of Unemployment Rate %	Growth Stock Market Index %	Population Growth Rate%	Stock Market Index
2006	9.2	0	0	0	13,787
2007	9.4	-2.17	47.15	3.05	20,287
2008	7.4	-17.78	-52.45	1.58	9,647
2009	6.6	-10.81	81.03	1.55	17,465
2010	9.4	42.42	17.43	0.6	20,509
2011	10.8	14.89	-24.64	1.35	15,455
2012	10.6	-1.85	13.14	2.54	17,486

(Source: BSE website and Trading Economics website)

TABLE 4.1: CORRELATION BETWEEN UNEMPLOYMENT & STOCK MARKET

Correlation	Stock Market	Unemployment
Stock Market	1	0.0027
Unemployment	0.0027	1

TABLE 4.2: GRAPHICAL REPRESENTATION OF CHANGE IN PERCENTAGE OF GROWTH RATE



ANALYSIS OF CORRELATION

The correlation value derived between Unemployment rate and Stock Market is 0.0027 or 0.27%, **which implies that there is a very weak positive relationship between Unemployment Rate and Stock Market to the extent of 0.27%.** It implies that Unemployment Rate and stock market move in the same direction, out of 100 instances, in 0.27% instances, these two variables move together.

INTERPRETATION

In order to analyze the effects of Un-employment rate with the Stock Market index, we have considered the additional data, representing the population growth in India so the insights can be gained.

The overall reasons for the growth of the Unemployment rate for all the years (mentioned in the above table) in India can be attributed to factors such as rapid population growth, closure of Small scale industries, the development of technology replacing the man power, defective education, seasonal employment opportunities in agriculture, lack of transport, Infrastructure and communication facilities, failures of the government plans to provide the employment

In the consecutive years 2006 and 2007 there is a rise in the Unemployment rate i.e. 9.2% and 9.4 % respectively, the probable reason for the same is the growth rate of Population 1.38 %(2006 w.r.t 2005) and 3.05 %(2007) all-time higher for years between 2006 and 2012. On the other hand the Stock Market grew all time higher to 20287 points mainly due to increased participation of FII and FDI, thanks to the clarification by SEBI pertaining to Participatory Notes. Secondly, the growth of GDP at 9% contributed to Stock Market. The other **fascinating reason** for sensenx 2007 marking at 20000-plus is due to lifting of Twenty-20 Cricket championship by Indian cricket team. This can be considered as the people and Market sentiment factor.

The year 2008 witnessed the unemployment rate of 7.4% as well as the Stock Market at 9647 points and the main reason can be attributed to the decrease in the employment rate due to sub prime crisis. The year 2009 witnessed the dip in the Unemployment Rate to 6.6% because employment in manufacturing sector grew by 4% while construction and transport & communication were expected to grow at around 8.2 % and 7.6 % respectively that pushed the Stock Market to 17465 points. Un-employment rate of 2011 and 2012, respectively 10.8 % and 10.6 %, was due to fall in the employment opportunities in agriculture sector due to droughts and insufficient rainfall all over the country, on the other side the European sovereign debt crisis, down grading of US credit rating- can be correlated to the, down graded credit rating on India in march (from BBB+ TO BBB- by S&P) led to fall in Stock Market.

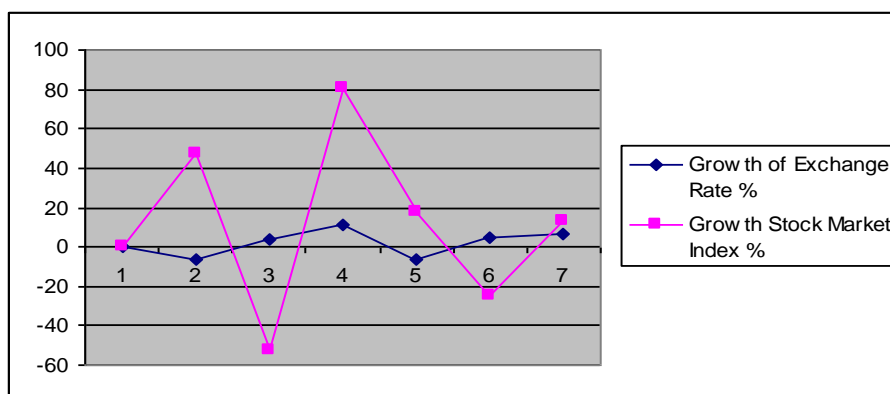
TABLE 5: IMPACT OF EXCHANGE RATE (USDINR) ON STOCK MARKET

Year	Exchange Rate %	Growth Rate of Exchange %	Growth	Stock Market Index
			Stock Market Index%	
2006	45.25	0	0	13,787
2007	42.5	-6.08	47.15	20,287
2008	44	3.53	-52.45	9,647
2009	49	11.36	81.03	17,465
2010	45.9	-6.33	17.43	20,509
2011	48	4.58	-24.64	15,455
2012	51.2	6.67	13.14	17,486

TABLE 5.1: CORRELATION BETWEEN EXCHANGE RATE & STOCK MARKET

Correlation	Stock Market	Exchange Rate
Stock Market	1	0.0883
Exchange Rate	0.0883	1

TABLE 5.2: GRAPHICAL REPRESENTATION OF CHANGE IN PERCENTAGE OF GROWTH RATE



ANALYSIS OF CORRELATION

The correlation value derived between Exchange Rate (USDINR) and Stock Market is **0.0883** or 8.83%, which implies that there is a **significant positive relationship (*) between Exchange Rate and Stock Market**

Hence the inference that can be drawn from the above correlation value is that the Exchange Rate (USDINR) and Stock Market move in same direction, out of 100 instances they move together to the extent of 8.83%.

*The appreciation in the value of Rupee is positive relationship and Vice- versa.

INTERPRETATION

It is evident from the above data that there is a significant relationship between Exchange Rates and Stock Market derived by value of correlation.

The Rupee stood at 45.25 against 1\$ in the year 2006 which further got depreciated by 25 paise standing at Rs42.50/ 1\$ in the year 2007. However, still the year 2007 should be called as golden times of India with respect to US \$, because the rupee stood at 42.5 Rs / \$, which is an appreciation in comparison to the years 2001, 2002, 2003, in which the rupee was Rs 47, Rs 48.4, Rs 46.5 /\$respectively.

The other reasons being the current account got increased by FDI contributing 8.5 billion \$ net inflow and capital account stood 109.6 billion \$ etc. Adding to this, was remarkable performance of software companies in terms of export that boosted both stock exchange and the rupee value against \$. In 2008, the Lehman-crisis-capital flows shrunk sharply from as high as \$109.6 billion in 2007-08 to a mere \$7.8 billion in 2008-09 and led to sharp depreciation of the currency. The same effect continued in the year 2009. The current account deficit also declined sharply as well tracking decline in oil prices from \$ 12 billion in Jul-Sep '08 to \$0.3 billion in Jan-Mar '09. The currency also depreciated by the effect of global crisis which led to preference for dollar assets compared to other currency assets. In 2010 Indian economy recovered much quicker and sharper from the global crisis. The capital inflows increased from \$7.8 billion to \$51.8 billion in 2009-10 and \$57 billion in 2010-11. The higher capital inflows were on account of both FDI and FII. External Commercial Borrowings (ECBs) also picked up in 2010-11. The current account deficit also increased from \$27.9 billion in 2008-09 to \$44.2 billion in 2010-11, all these factors boosted the Stock Market to 20509 points.

In 2011 the rupee stood at 48 / \$, the probable reasons for the depreciation being the political situation in India (referring to Anna Hazare Strikes); the Greece crisis is one of the important factors with respect to world economy. Besides this, the other factors were on month-on-month basis (year 2011), Foreign Direct Investments (FDI), External Commercial Borrowings (ECBs) and Foreign Currency Convertible Bonds (FCCBs) recorded a slowdown in Financial year 2011. On other hand, it also influenced Stock Market to close at 15455 points. In 2012, the rupee stood at Rs 51.20 / \$ all-time higher (depreciation of rupee) among the reference period, the main cause being the downgrade of credit rating of India by S&P from BBB+ to BBB-, lowering the confidence among the investors and creating demand-supply gap. This has resulted in closing the Stock Market with 17486 points.

TABLE 6: RANKING OF MACROECONOMIC VARIABLES BASED ON CO-RELATION VALUES

Macro Economic Variables	Co-Relation Value	Rank
GDP	0.416	1
Exchange Rate	0.0883	2
Unemployment	0.0027	3
Inflation	-0.0047	4
Prime Lending Rate	-0.2382	5

INTERPRETATION

From the above table it is clear that GDP, Exchange Rate (USDINR), Unemployment Rate, have positive impact on Stock market index on the other hand Inflation & PLR have negative impact on Stock Market index.

SUMMARY OF FINDINGS

- ❖ The macroeconomic variables such as GDP, Inflation, Unemployment rate, PLR and Exchange Rate (USDINR) have got some relationship with Stock Market and Vice-versa.
- ❖ The GDP has got a significant relationship with Stock Market and Vice-versa, the factors which have contributed for the growth of GDP have also directly contributed for the growth of Stock Market over the study period.
- ❖ The Inflation rate shares a negative relationship with Stock Market, any increase in the inflation will cut the growth of Stock Market, by the value of correlation. It is understood that Inflation has succeeded in influencing the Stock Market to the extent of -0.47%, but a scrupulous analysis reveals that inflation influences the Stock Market more indirectly than directly through other factors.
- ❖ The Third macroeconomic variable has managed to build a negative relationship to the extent of 23.82%, It was also found that decisions made by RBI on Bank rate, PLR rate, Repo & Reverse Repo rate have given the tough competition to Stock Market, any cut has resulted in boosting the Stock Market and any increase would have resulted in the withdrawal from Stock Market.
- ❖ The fourth macroeconomic variable had very minimal effect on Stock Market and can be considered as variable with less or no influence over the Stock Market.
- ❖ The last variable managed to move along with the Stock Market to the extent of 8.83%, It was found that any appreciation in Rupee value against dollar increases the Stock Market to larger extent.
- ❖ The events such as Euro crisis, Lehman crisis, down graded credit ratings, IPL championship, Anna Hazare's democratic movement, WTC attacks (2001 September), Political instability, Monsoon conditions have taken in charge of influencing the nearest variable as well as influencing the Stock Market and the entire economy.

CONCLUSION

From this study, it is clear that the various Macro economic factors play around to influence the growth of the economy and the Stock Market. They can contribute for the growth of the economy as well as suppress the growth. We have investigated over the various macroeconomic variables such as Gross Domestic Product, Inflation, Unemployment Rate, PLR and Exchange Rate (USDINR) and found that the variation among them has caused variation in the Stock Market. So we can understand that there is strong bonding between the variables and the Stock Market. From the perspective of company, we should understand that they can control the internal factors such as EPS, Book value, dividend, market value of shares etc that would affect the performance and they can also succeed by making the adjustments to attract the investors but with respect to the external factors they have no control and it's a fact that would definitely affect the performance regardless of whether the companies are large, medium or tiny. Hence the companies need to have an eye on the macroeconomic variables and adjust their policies, output, and investment-level accordingly.

Therefore it is well convinced that the Stock Market as a part of the economy is affected or influenced by the various macro economic variables, the variables individually may impact the Stock Market at the higher or lower level but as a whole (GDP+ Inflation+ PLR+ unemployment+ exchange rate) will gain the synergy to impact the Stock Market to greater extent.

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IMPACT OF COALMINE INDUSTRIAL EFFLUENTS ON PRODUCTIVITY OF PULSE CROP

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ABSTRACT

Pulses are the basic Ingredient in the diets of a vast majority of the Indian population, as they provide a perfect mix of vegetarian protein component of high biological value when supplemented with cereals. Despite several initiatives taken by the Government for improving the productivity and reducing the cost of production of pulses, still the requirements are more than availability of pulses. Short fall in pulses has been attributed to a number of factors, the major ones being the increasing population, abrupt climatic changes, disease – pest syndrome etc. This article describes present status of pulses crop, and to suggest measures to achieve sustained pulses production in the country. Besides, a small test has been conducted to examine the impact of coal mine effluents on productivity of Bengalgram (chick pea), the dominant pulse crop in India.

KEYWORDS

coalmine industrial effluents, pulse crop.

INTRODUCTION

Pulses occupy an important position in developing countries in general and India in particular. They figure prominently in crop mixtures and crop rotation and occupy a vital role in the dietary of the people. It supplies the major portions of the protein requirements. Pulses have protein three times as much as cereals. A mixed diet of cereals and pulses has high biological value. Pulses are also an excellent feed and fodder for livestock. Endowed with the unique ability of biological nitrogen fixation, carbon sequestration, soil amelioration, low water requirement and capacity to withstand harsh climate, pulses have remained an integral component of sustainable crop production system since time immemorial, especially in the dry areas. They also offer good scope for crop diversification (growth profitably in relatively low-input management conditions) and intensification (short growing period). Legumes also provide a source of dietary protein fertilizer for cereal crops, grown as rotational crops particularly when the straw is not harvested. Pulses are mostly grown under unirrigated conditions on poor soils and with low inputs. Pulses do not require large doses of fertilizers and pesticides. Out of about 23 million hectares of area under pulses, only 2-3 million hectares are irrigated.

PRESENT STATUS OF PULSE CROPS

The biggest increase in area under pulse crop and production during 2000-01 to 2010-11 can be observed from data presented in Table-1, however, growth rates of yield during this period is declined marginally compared to earlier decade. During 2010-11, of the total food grain production, production of cereals was 226.54 million tones (mt) and pulses 18.24 mt.

As per second advanced estimates for the year 2011-12, provided by the Department of Agriculture and cooperation total food grains production projected at a record level of 250.42 mt. and pulses at 17.28 mt. These figures make India the largest producer of pulses in the world, with 24 percent share in the global production.

TABLE – 1: AVERAGE GROWTH RATES IN AREA, PRODUCTION AND YIELD OF PULSE CROP IN INDIA SINCE INDEPENDENCE

Year	Growth Rates(%)		
	Area	Prod.	Yield
1949-50 to 1964-65	1.72	1.41	-0.18
1967-68 to 1980-81	0.44	-0.44	-0.40
1979-80 to 1989-90	0.15	2.78	2.63
1989-90 to 1998-99	-0.22	0.75	0.65
1949-50 to 1998-99	0.16	0.58	0.46
1990-91 to 1999-2000	-0.91	1.06	1.82
2000-01 to 2010-11	2.30	4.02	1.21

Source: Agriculture Statistics at a Glance - Various Issues

With the large population dependent on pulses for protein requirements, India is also the largest consumer and importer of pulses. Ironically, the country's pulse production has been hovering around 14-15 Mt. coming from a near-stagnated area of 22-23 M ha, since 1990-91. During this period, an additional population of 350 million has been added, which led to a sharp decline in the availability of pulses from 41 in 1990-90 to 33 g/capita/day in 2009-10, doubling its import (from 1.27 to 2.35 million) and resulting in skyrocketing prices. Shortfall in pulses has been attributed to a number of factors, the major ones being the increasing population, rising income, geographical shift, abrupt climatic changes, complex disease-pest syndrome, socio-economic conditions and poor marketing opportunities (Masood Ali and Sanjeeva gupta, 2012).

TABLE-2: REQUIREMENT, PRODUCTION AND IMPORT OF PULSES IN INDIA

Year	Population (million)	Requirement (Mt)	Production (Mt)	Import (Mt)
2000-01	1027	16.02	11.08	0.35
2004-05	1096	17.10	13.13	1.31
2009-10	1175	18.33	14.60	2.83
2020-21	1225	19.10		
2050-51	1613	26.50		

Source: Current Science vol.102.No.6. 25 March 2012

As against total pulse requirement of 18.33 Mt for 2009-10, the domestic production is only 14.60 Mt. provides only partial relief and checks escalation in the market price. By 2050, the domestic requirement would be 26.50 Mt (Table 2), necessitating stepping up production by 81.50% i.e. 11.9 Mt additional produce at 1.86% annual growth rate. The additional production of 7.90 Mt has to come through productivity enhancement and the rest (2.50 Mt) from horizontal expansion in area. The growth rate of pulse production was just 1.52% in the 1980s and 0.59% in the 1990s. It has significantly increased to 1.42% during 2001-08. At present the growth rate in production is only 0.6%. The growth rate in the total area under pulses was negative both in the 1980s and 1990s. Assuming that the area remains constant, as seen during last four decades, 2.05% annual growth rate in productivity will be required to achieve 26.5 Mt by 2020. Some

states like Andhra Pradesh, Maharashtra and Karnataka have already demonstrated high productivity growth in chickpea (51-125%) and pigeonpea (64-110%) during 1991-93 to 2006-08 (Nandarajan, and Gupta, S 2010). This assures that the targets as shown in projections can be achieved with appropriate technology back-up and special efforts for promotion of production in the country.

TABLE-3: EFFECT OF COALMINE EFFLUENT ON MORPHOLOGICAL TRAITS OF CHICER ARIETINUM (L)

	Concentration in Percentage	Shoot Length (cm)	Root Length (cm)	No. of Leaves	No. of Lateral roots	*Percentage of Germination
	Control	5.38	11.42	2.1	15.7	100
	25%	2.01	5.73	1.2	5	100
8 Hours	50%	2.07	3.41	1.4	4.3	100
	75%	3.28	4.95	1.4	5.2	100
	100%	4.23	8.12	1.2	8.4	100

Note: For parameter * data taken after 5 days, for the rest it is for 10 days.

Keeping in view the importance of pulses in food grain production, the study examines the effect of coal mine industrial effluents on productivity of Bengal gram (Chick-pea) - the dominant pulse crop in India.

BRIEF PROFILE OF SINGARENI COAL INDUSTRY

Singareni Collieries Company Limited (SCCL) is the oldest public sector Coal Company in India established in 1850 carrying on the mining operations in the Godavary Valley of Andhra Pradesh. It is also known as the South Indian Coal Industry. It is operating in 72 mines and contributing to around 10 percent of country's total coal production. It owns about 6 percent of total national coal reserves. The coal fields of Singareni collieries are spread in 4 districts of Andhra Pradesh – Khammam, Karimnagar, Adilabad and Warangal. The coal production touched to 522 lakh tones during 2011-12. The power industry is the single largest coal consuming sector accounting for about 70 percent of overall consumptions. The ash content is in between 24-45 percent, but low in sulphur (less than 1 percent). In Singareni coal industry, 60 percent of coal production has been extracted by conventional mining methods and the rest from other methods including open cast method.

As part of its responsibility to provide good environment to its workmen and public in the surrounding area of coalfields, SCCL has taken up forestation activities in 3034 hectares of land. In order to reduce / avoid forestland diversion, townships, service building etc. is being planned out side the reserve forest area. To reduce high noise levels around mine sites, in some places, green belt barriers are provided between the mines and the residential areas. However, due to growing demand for housing, tremendous expansion of town ship is taking place in Singareni area irrespective of required permissions from concerned authorities.

Due to the expansion of open cast activities in many mining areas during the last one decade, the dust pollution has been increasing and not only adversely effecting on health of the people but also on crop yield. The Leaves are the main sites for photosynthetic activity. Mining dust particles forms a thin film of dust on the leaves and this leads to the reduced levels of photosynthetic activity; which in turn affects the crop growth.

INDUSTRIAL EFFLUENTS

The soil is a primary recipient of many of the waste products and chemicals used in the industries. Once these materials are enter the soil, they become part of a cycle that affects all forms of life. Biochemical characters of soil such as Alkalinity, Chlorides, Calcium, Magnesium, Organic carbon contents of soil changed and affects the Photo synthesis of plant, stem root growth, length of root, number of lateral roots Biomass, number leaves, Protein, Carob-hydrate and Ascorbic acid etc.

OBJECTIVITIES OF STUDY

- To examine the present status of pulse crops in India and to suggest appropriate measures for enhancing productivity.
- To study the effect of coal mine effluents on germination and seedling growth or productivity of major pulse crop i.e. Bengal gram, as the results may also more or less applicable to other varieties of pulses.
- To find the effect of coal mine effluents on the metabolic process of pulse crops which changes the nutritive value.

METHODOLOGY ADOPTED FOR TESTING

To know the effects of industrial effluents on the seeds of Bengal gram seeds were treated with different concentrations (25%, 50%, 75% and 100%) of coal mine effluents for 8 hours. Because in normal conditions the plants always receives toxic doses in very diluted conditions. The treated seeds were germinated *in Vitro*. The effluents were collected from the open cast coal mines of Singareni Coal Mining Industry at Yellandu of Khammam district of Andhra Pradesh.

RESULTS AND DISCUSSION

Some adverse effects of the coal mine effluents on morphological characters of major pulse crop (*Cicer arietinum* or Bengal gram) are discussed here under:

- The overall germination percentage is not affected by effluent, however, the emergence of seedling was delayed, due to this duration of time for crop may increase and this may adversely effect on the productivity. Further, unequal growth of seedling may also leads to the lower yield. This study also reveals that the shoot length, root length, number of leaves, number of lateral roots were decreased with the increasing concentrations of coal mine effluents when compare to untreated seeds. This adversely effect on yield.
- The bio-mass (fresh weight and dry weights) was also decreased with the increasing concentration of coal mine effluents. This also reduces the yield of the crop.

The coal mine effluents also shows some deleterious effects on bio-chemical characters (metabolism). They are:

- Ascorbic acid (vit-c)** plays an important role in the respiratory pattern. It activates the growth centers in the shoot apex. It increases cell division and cell enlargement. The above process leads to differentiation process i.e. shoot apices are converted into reproductive organs (i.e. inflorescence). The Ascorbic acid content was decreased in the effluents treated seedlings. The decreased levels of ascorbic acid shows effect on flowering and seed setting. This leads to the reduced productivity.

TABLE-4: EFFECT OF COALMINE EFFLUENT ON *CICER ARIETINUM* (L) YIELD OF FRESH AND DRY WEIGHTS

	Concentration in Percentage	Fresh Weight (mg)	Dry Weight (mg)
	Controle	9.500	1.800
	25%	6.520	1.950
8 Hours	50%	6.250	1.950
	75%	6.150	1.970
	100%	6.150	1.970

TABLE-5: EFFECT OF COALMINE EFFLUENT ON SOME BIO CHEMICAL PARAMETERS IN *CICERARIETINUM (L)*

	Concentration in Percentage	Amount of sugars (mg)	Amount of Proteins (mg)	Amount of ascorbic acid (mg)
	Controle	19.2 mg/100 g	8.8 mg/100 g	96 mg/100 g
	25%	20 mg/100 g	8.8 mg/100 g	80 mg/100 g
8 Hours	50%	19.2 mg/100 g	8.8 mg/100 g	80 mg/100 g
	75%	20 mg/100 g	19.2 mg/100 g	80 mg/100 g
	100%	19.2 mg/100 g	19.2 mg/100 g	88 mg/100 g

Note: one month old seedlings

- **Sugars:** The sugars plays vital role in organogenesis (formation of leaves and flowers) The total sugars was also increased due to molasses (accumulation). Due to this carbohydrate metabolism gets affected. The carbohydrate metabolism plays a key role during organogenesis. Thus organogenesis was inhibited. This results in low production of crop.
- **Protein:** The protein content was increased with the increasing concentration of effluents. This may be due to synthesis of some enzymes involved in stress management. This enables the plant to withstand polluted conditions. Due to this, the flowering process is delayed and it has great impact on crop productivity.

CONCLUSION AND SUGGESTIONS

The present investigation reveals that the pulse crop is severely affected by the coal mine effluents in terms of morphological and biochemical traits, which results in low productivity. Besides, the dust particles from mining activity also badly affects the plant growth and yield. Growth and degradation of environment is moving together. Hence, the development strategy should be a high productivity with low pollution. Development of green belt area around the Coal mines and residential area by undertaking plantation and social forestry, *Acacia Arabica*, coniferous trees, which are best suited to control the negative effects of pollution should be undertaken. As the thermal pollutants released by coal based thermal power stations pose disastrous effects on the eco-system, hence, efforts should be made to tap the energy sources other than conventional sources, such as bio-energy, photo-energy, tidal-energy, geo-energy and wind-energy etc. Excess use of subsidized fertilizer has created imbalance between Nitrogen, phosphorous, and potassium (N, P and K) and also adversely affected the soil health. Sensitization of the farmers with the environmental concerns and balanced use of organic and inorganic fertilizers, biomass and controlled use of agro-chemicals through integrated nutrients and pest management maintaining soil health with diversification should receive high priority. Utilization of farm residues and organic waste, as well as rural and urban garbage would go a long way in achieving sustained pulses production. For yield stability and higher productivity farm ponds and community reservoirs need to be created in every village of the pulse-growing districts of the country. Further, efforts are needed to ensure availability of critical inputs like bio-fertilizers, Sulpur, Zink, Bio-pesticides, etc. at the state level. Provisions should be made for easy credit, insurance, attractive minimum support price with procurement and appropriate incentives. Necessary infrastructure needs to be created for processing and value-addition. Besides these measures necessary investment in research is pre-requisite to develop high yielding and multiple disease-resistant varieties.

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IMPACT OF MERGER ON THE PROFITABILITY PERFORMANCE OF REGIONAL RURAL BANKS (RRBs) IN BIHAR STATE OF INDIA: AN EMPIRICAL STUDY

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ABSTRACT

This research topic is a study on the impact of merger on the profitability performance of RRBs in Bihar State of India. An effort has been made in the instant project to study and find out whether restructuring through consolidation have made any effect on the financial viability of the RRBs in this region. Since 1975 RRBs are being regarded as one of most important sources of institutional financing of rural credit in India. But at the end of expansion phase (1987) financial viability of the RRBs emerged as an important issue to the policy makers. Since 1991, various steps have been taken up by GOI for strengthening the RRBs e.g. cleansing of balance sheets, recapitalisation of selected RRBs etc. State-wise & Sponsor bank wise merger of RRBs is the recent route of restructuring of RRBs for improving their financial viability. There is always a need for up-gradation of the rural banking systems in India through performance evaluation in the context of necessity of institutional rural credit to the poor rural folk. Therefore, an attempt is made to study on the pre-merger and post-merger profitability performance of the RRBs in Bihar State.

KEYWORDS

Bihar State, Institutional rural credit, Merger, Profitability, RRBs.

1. INTRODUCTION

Beginning of regional rural banks (RRBs) can be seen as a inimitable experiment as well as practice in improving the efficacy of rural credit delivery mechanism in India. With joint share holding by Central Government, the concerned State Government and the sponsoring bank, an effort was made to integrate commercial banking within the broad policy thrust towards social banking keeping in view the local peculiarities. The genesis of the RRBs can be traced to the need for a stronger institutional arrangement for providing rural credit. The Narsimham committee conceptualised the creation of RRBs in 1975 as a new set of regionally oriented rural banks, which would combine the local feel and familiarity of rural problems characteristic of cooperatives with the professionalism and large resource base of commercial banks. Subsequently, the RRBs were set up through the promulgation of RRB Act of 1976.

Over the years, the RRBs, which are often viewed as the small man's bank, have taken deep roots and have become a sort of inseparable part of the rural credit structure. They have played a key role in rural institutional financing in terms of geographical coverage, clientele outreach and business volume as also contribution to development of the rural economy. The rural orientation of RRBs is formidable with rural and semi urban branches constituting over 97 per cent of their branch network. The growth in the branch network has enabled the RRBs to expand banking activities in the unbanked areas and mobilise rural savings. The mandate of promoting banking with a rural focus, however, would be an enduring phenomenon only when the financial health of the RRBs is sound. With built-in restrictions on their operations, it is common to expect that the financial health of the RRBs itself would be a matter of concern. As regards their financial status, during the year 2004-05, 167 RRBs earned profits amounting to Rs.904.43 crore while 29 RRBs incurred losses to the tune of Rs.153.96 crore. Eighty-eight RRBs had accumulated losses to the tune of Rs. 2715.01 crore during the year 2004-05. Of the 88 RRBs having accumulated loss, 53 RRBs had eroded their entire owned funds as also a part of their deposits. Furthermore, non-performing assets (NPAs) of the RRBs in absolute terms stood at Rs.3,299 crore as on March 31, 2005. The percentage of gross NPAs was 8.53 during the year ending March 31, 2005. While 112 RRBs had gross NPAs less than the national average, 84 had NPAs more than it.

At the end of expansion phase (1987) financial viability of the RRBs emerged as an important issue to the policy makers. Since 1991, various steps has been taken up by GOI for strengthening the RRBs e.g. cleansing of balance sheets, recapitalisation of selected RRBs etc. In order to improve the operational viability of RRBs and to take advantage of the economies of scale by reducing transaction cost, Government of India (GOI) initiated in 2005 the process of structural consolidation of RRBs by amalgamating RRBs sponsored by the same bank within a State. It was opined that amalgamated RRBs are expected to provide need based and efficient customer services due to improved banking infrastructure, common publicity/marketing efforts, mechanization and computerization of branches, optimum utilization of available trained and experienced work force etc and also derive benefits of a large area of operation [economy of scale], enhanced mobilization of financial resources and deployment of credit and provision of more diverse banking activities. The process of amalgamation continued till 2012. Up to 31st march, 2012 there was 56 cases of merger among RRBs in India; under which a total of 173 banks were merged (there was case of re-merger also).

Among the 82 RRBs operating as scheduled commercial banks as on March 2012, within the framework of multi-agency system in India, **four** are functioning in Bihar state namely **Bihar Kshetriya Gramin Bank (BKGB)**, **Madhya Bihar Gamin Bank (MBGB)**, **Uttar Bihar Gramin Bank (UBGB)** and **Samastipur Kshetriya Gramin Bank (SKGB)**. Out of these four banks, BKGB, MBGB and UBGB were emerged on the basis of merger in eight RRBs operating in this region. The merger took place in February, 2007.

Rural banking forms one of the significant parts in Indian banking. Many economists and policy makers opine that the future growth of banking sector in India depends to a large extent on the robust performance of the Rural Financial Institutions (RFIs). Among the factors responsible for economic development and poverty alleviation in rural sector, the role of the RFIs is considered very significant as a substantial portion of the institutional rural credit by the RFIs is used for rural development to support formation of rural capital. Although the performance of RRBs may be gauged from the success of poverty alleviation programmes to which they are dedicated to act as a catalyst, their achievements as commercial banking organization can never be ignored. It is in this context that the post merger profitability performance of RRBs assumed enormous significance in the Indian rural banking scenario. The case becomes stronger when the route of merger in RRBs was primarily initiated to arrest the increasing level of huge accumulated losses (Vyas Committee, 2001 & 2004, Sardesai committee, 2005).

The present study aspires to make an overall evaluation over the impact of merger on profitability performance of RRBs in Bihar State. A period of twelve years from 2000-01 to 2011-12 is taken for the study. Six years each from pre-merger period (i.e. 2000-01 to 2005-06) and post-merger period (i.e. 2006-07 to 2011-12) respectively are selected for the study. To be specific, the main objectives of the study are:

- To examine the social relevance for studying in Profitability Performance of RRBs (i.e. significance of the study).
- To focus on the merger of RRBs in India as well as in Bihar state.
- To examine the impact of merger on the profitability performance of RRBs in Bihar State.

Accordingly, the reminder of the paper is organised as under. Section two laid down the review of literature and methodology of the study. Section three narrates the significance of the study while section four presents the brief sketch in consolidation of RRBs in India as well as in Bihar State. Section five focuses on impact of merger on the profitability performance of RRBs in this region. The last section is devoted for concluding observations.

2. REVIEW OF LITERATURE & METHODOLOGY OF THE STUDY

2.1. REVIEW OF LITERATURE

The two important issues observed in several academic studies relating to bank mergers are: first, the impact of mergers on operating performance and efficiency of banks and second, analysis of the impact of mergers on market value of equity of both bidder and target banks. **Berger et.al (1999)** provides an excellent literature review on both these issues. The first issue identified above is the study of post merger accounting profits, operating expenses, and efficiency ratios relative to the pre-merger performance of the banks. Here the merger is assumed to improve performance in terms of profitability by reducing costs or by increasing revenues. **Cornett and Tehranian (1992)** and **Spindit and Tarhan (1992)** provided evidence for increase in post-merger operating performance. But the studies of **Berger and Humphrey (1992)**, **Piloff (1996)** do not find any evidence in post-merger operating performance. However, **Berger and Humphrey (1994)** reported that most studies that examined pre-merger and post-merger financial ratios found no impact on operating cost and profit ratios. The reasons for the mixed evidence are - the lag between completion of merger process and realization of benefits of mergers, selection of sample and the methods adopted in financing the mergers. Further, financial ratios may be misleading indicators of performance because they do not control for product mix or input prices. Some studies have also examined the potential benefits and scale economies of mergers. **Landerman (2000)** explores potential diversification benefits to be had from banks merging with non banking financial service firms. **Wheelock and Wilson (2004)** find that expected merger activity in US banking is positively related to management rating, bank size, competitive position and geographical location of banks and negatively related to market concentration.

The academic studies (Reddy, 2005; Pandit et.al.2006) encourage the examination of one important issue relating to mergers in Indian banking. Do, merger in Indian banking improve operational performance and efficiency of banks? But in India, steered by the central bank, most of the weak banks are being merged with healthy banks in order to avoid financial distress and to protect the interests of depositors. Hence the motivation behind the mergers may not be increase in operating efficiency of banks but to prevent financial distress of weak banks. In this paper an attempt is made to study whether the route of merger is able to remove financial anguish of RRBs in West Bengal in terms of improvement in profitability performance individually and as a whole as compare to other RRBs working in eastern region and in India.

2.2 METHODOLOGY OF THE STUDY

The study is basically exploratory in nature and depends exclusively on secondary data. Secondary data are collected from various reports on RRBs published by NABARD and the RBI bulletin, annual reports of RRBs, reports of the various committees set up by the government on RRBs and the publications of Banker Institute of Rural Development (BIRD). Parameters like ratios, percentage of growth and others are considered for some meaningful comparison and analysis to evaluate performance of the RRBs and also to derive some concrete conclusion.

3. SIGNIFICANCE OF THE STUDY

Viability of rural financial institutions is a *sine qua non*. However, a balanced view is necessary in the context of immense contribution made by the RRBs as a group as well as individually in the area of their operation, most of which have extremely difficult and hostile socio-economic and political environment. RRB as an entity has indeed established its unique place in the rural financial system in India in terms of branches, deposits and depositors, advances and borrower accounts and credit-deposit ratio. Besides, it has extended the much needed banking infrastructure reaching to rural masses and contributed considerably in respect of mobilization of tiny amount from a very large number of rural household depositors and providing small amount of credit to quite a large number of rural households for their social and economic liberation and help them enjoying a reasonable standard of living rather than leading a life of destitute. RRBs also have contributed quite significantly in tribal areas as all the predominantly tribal districts identified by the Planning Commission.

Since early nineties viability of RRBs has been a serious concern of the share holders (i.e. the GOI, state governments and sponsor bank). The concept of financial viability for RRBs had been considered as a serious issue at the end of its expansion phase (i.e.1987). The inherent structural weaknesses such as limited area of operation, restricted clientele, small and un-remunerative size of loans, directed lending, regulated interest rates, absence of cross subsidization, etc, mingled with certain internal factors- specific to individual RRB, eventually resulted into many RRBs accumulating huge losses. Besides, despite the fact that the Working Group had emphasized "the role of the new institutions would be to supplement and not to supplant the other institutional agencies in the field," harmful competition among the operating financial institutions, lack of enough support from their sponsor banks and interference of State Government added to the problems of business and financial viability. The financial burden on the RRBs increased substantially from September 1987, with the implementation of National Industrial Tribunal Award providing remuneration package to RRBs' staff on par with the staff of commercial banks. The fragile state of the RRBs became evident from the fact that most of them became non-viable as their accumulated losses eroded the equity base of as many as 165 RRBs as on 31st March 1994. This necessitated concerted institutional development efforts aimed at strengthening of RRBs to enable them to become viable and achieve the desired objectives. Cleansing of balance sheets and recapitalisation of selected RRBs marked the initial major step and was followed by a series of initiatives that sought to allow them to function in a free and deregulated environment.

In view of the serious concern for accelerating business, improving operational viability and financial sustainability of RRBs several options were discussed; out of which merger of all RRBs sponsored by the same bank within a State (as recommended by the Vyas Committee in 2004) was considered appropriate and legally feasible.

4. RESTRUCTURING THROUGH CONSOLIDATION OF RRBs

Profitability and financial viability of the RRBs has engaged the thought of the policy makers from time to time. In fact, as early as 1981, the Committee to Review Arrangements for Institutional Credit for Agriculture and Rural Development (CRAFICARD) addressed the issue of financial viability of the RRBs. The CRAFTICARD recommended that 'the loss incurred by a RRB should be made good annually by the shareholders in the same proportion of their shareholdings'. Though this recommendation was not accepted, under a scheme of recapitalisation, financial support was extended by the shareholders in the proportion of their shareholdings. Later, a number of committees have come out with different suggestions to address the financial non-viability of RRBs. For instance, the Working Group on RRBs (Kelkar Committee) in 1984 recommended that small and uneconomic RRBs should be merged in the interest of economic viability. Five years down the line, in a similar vein, the Agricultural Credit Review Committee (Khusro Committee), 1989 pointed out that 'the weaknesses of RRBs are rife to the system and non-viability is built into it, and the only option was to merge the RRBs with the sponsor banks. The objective of serving the weaker sections effectively could be achieved only by self-sustaining credit institutions'. The Committee on Restructuring of RRBs, 1994 (Bhandari Committee) identified 49 RRBs for comprehensive restructuring. It recommended greater devolution of decision-making powers to the Boards of RRBs in the matters of business development and staff matters. The option of liquidation again was mooted by the Committee on Revamping of RRBs, 1996 (Basu Committee). The Expert Group on RRBs in 1997 (Thingalaya Committee) held that very weak RRBs should be viewed separately and possibility of their liquidation be recognised. They might be merged with the neighbouring RRBs. The Expert Committee on Rural Credit, 2001 (Vyas Committee I) was of the view that the sponsor bank should ensure necessary autonomy for RRBs in their credit and other portfolio management system. Subsequently, another committee under the Chairmanship of Chalapathy Rao in 2003 (Chalapathy Rao Committee) recommended that the entire system of RRBs may be consolidated while retaining the advantages of regional character of these institutions. As part of the process, some sponsor banks may be eased out. The sponsoring institutions may include other approved financial institutions as well, in addition to commercial banks. The Group of CMDs of Select Public Sector Banks, 2004 (Purwar Committee) recommended the amalgamation of RRBs on regional basis into six commercial banks - one each for the Northern, Southern, Eastern, Western, Central and North-Eastern Regions. A committee under the Chairmanship of A.V Sardesai revisited the issue of restructuring the RRBs (Sardesai Committee, 2005). The Sardesai committee held that 'to improve the operational viability of RRBs and take advantage of the economies of scale, the route of merger/amalgamation of RRBs may be considered taking into account the views of the various stakeholders'.

The main triggers for all of the above recommendations were the small size of RRBs which had made their operations unviable leading to significant amount of accumulated losses - which was not considered desirable. Thus in order to improve the operational viability of RRBs and to take advantage of the economies of scale by reducing transaction cost, GOI initiated the process of structural consolidation of RRBs by amalgamating RRBs sponsored by the same bank within a

State. The first set of amalgamations took place on September 12, 2005 when 28 RRBs were amalgamated to form 9 new RRBs. The amalgamations were carried out under Section 23-A of the RRBs Act, 1976, which provides that the Central Government, after consultation with the National Bank, the concerned State Government and the Sponsor Bank may amalgamate two or more RRBs. As a result of such merger, the number of RRBs has come down to 82 as on March 31, 2012 as against 86 and 196 RRBs as on March 31, 2008 and 2005, respectively. It needs to be noted here that this consolidation has occurred only amongst the RRBs, and not with the sponsor banks, and has been achieved without amendment to the governing statute of the RRBs. The structural consolidation of the RRBs has resulted in formation of new RRBs, which are presume to be financially stronger and bigger in size in terms of business volume and outreach.

The process of state-wise & sponsor bank-wise 1st phase of merger is more or less completed. Till 31st march, 2012 there were 56 cases of merger among RRBs in India; under which a total of 173 banks were merged (there was case of re-merger also). So far the number of cases in merger is concerned central region is at the top of the list, where 60 banks were consolidated into 20 RRBs. It was followed by eastern region (40 banks formed 12 RRBs), southern region (28 banks merged into 9 RRBs), Northern region (20 banks consolidated to 7 RRBs), western region (28 banks shaped 6 RRBs) and north-eastern region (four banks to one). The highest number of bank merger is observed at Uttar Pradesh. Baroda Eastern GB (viz. seven banks namely Raebareilly Kshetriya Gramin Bank, Sultanpur KGB, Kanpur KGB, Allahabad KGB, Pratapgarh KGB, Fatehpur KGB and Faizabad KGB were consolidated into Baroda Eastern GB) and Baroda Western GB (viz. Bareilly Kshetriya Gramin Bank and Shahjahanpur KGB amalgamated into Baroda Western GB) were remerged to form Baroda Uttar Pradesh GB. A total of nine banks were consolidated within this merger process. Apart from this, there are four cases of re merger and three of them in Uttar Pradesh and one in Maharashtra. The cases are: (i) Allahabad Uttar Pradesh GB, Sarva Uttar Pradesh GB and Satpura Narmada KGB in Uttar Pradesh and (ii) Wainganga Krishna GB in Maharashtra.

The route to sponsor Bank wise merger of RRBs in Bihar was completed in March, 2006. Before 2006 there were sixteen RRBs (as shown in **Table: 1**). Begusarai Kshetriya Gramin Bank, Bhagalpur-Banka Kshetriya Gramin Bank and Monghyr Kshetriya Gramin Bank were consolidated to form the first merged RRB in this region on 12th September, 2005 namely - Bihar Kshetriya Gramin Bank with head office at Monghyr and sponsored by United Commercial Bank (UCO Bank). The second case of merger took place in February, 2006 when Madhya Bihar Gramin Bank (head office at Patna) were emerged on the basis of consolidation of the four RRBs sponsored by Punjab National Bank (PNB) - Bhojpur Rohtas Gramin Bank, Magadh Gramin Bank, Nalanda Gramin Bank and Patliputra Gramin Bank. On 1st march, 2006, two merger cases took place at a time. At first, Uttar Bihar Kshetriya Gramin Bank was created with the process of amalgamation of seven RRBs sponsored by Central Bank of India (CBI) - Champaran Kshetriya Gramin Bank, Vaishali Kshetriya Gramin Bank, Madhubani Kshetriya Gramin Bank, Mithila Kshetriya Gramin Bank, Gopalganj Kshetriya Gramin Bank, Saran Kshetriya Gramin Bank and Siwan Kshetriya Gramin Bank. Thereafter, on the same notification date Uttar Bihar Kshetriya Gramin Bank again merged with Kosi Kshetriya Gramin Bank to form Uttar Bihar Gramin Bank with head office at Muzaffarpur. The remaining one i.e., Samastipur Kshetriya Gramin Bank (SKGB), was not considered for merger since SKGB is the sole sponsored gram in bank of State Bank of India in this region. Details are shown in **Table: 1**.

TABLE 1: SPONSOR BANK WISE CONSOLIDATION OF RRBs IN BIHAR STATE OF INDIA

Sponsoring Bank	Name of the RRBs	Name of the Merged entity with date of merger
United Commercial Bank (UCO Bank)	1. Begusarai Kshetriya Gramin Bank	Bihar Kshetriya Gramin Bank (BKGB), Monghyr on 12 th September, 2005
	2. Bhagalpur-Banka Kshetriya Gramin Bank	
	3. Monghyr Kshetriya Gramin Bank	
Punjab National Bank (PNB)	1. Bhojpur Rohtas Gramin Bank	Madhya Bihar Gramin Bank (MBGB), Patna on 10 th February 2006
	2. Magadh Gramin Bank	
	3. Nalanda Gramin Bank	
	4. Patliputra Gramin Bank	
Central Bank of India (CBI)	1. Champaran Kshetriya Gramin Bank	Uttar Bihar Gramin Bank (UBGB), Muzaffarpur on 1 st March, 2006
	2. Vaishali Kshetriya Gramin Bank	
	3. Madhubani Kshetriya Gramin Bank	
	4. Mithila Kshetriya Gramin Bank	
	5. Gopalganj Kshetriya Gramin Bank	
	6. Saran Kshetriya Gramin Bank	
	7. Siwan Kshetriya Gramin Bank	
	8. Kosi Kshetriya Gramin Bank	
State Bank of India (SBI)	Samastipur Kshetriya Gramin Bank (SKGB)	Not considered for merger

Source: Key Statistics on Regional Rural Banks: 2007-08, Institutional Development Department, NABARD, Mumbai

5. IMPACT OF MERGER ON THE PROFITABILITY PERFORMANCE OF RRBs IN BIHAR STATE

While evaluating the impact of merger on the profitability performance of RRBs in Bihar state, the following observation is made:

- The scheme of merger as a part of restructuring process made a positive impact on the profitability performance of RRBs in Bihar State as a whole and also on the individual performance of three merged RRBs. Overall profit of RRBs in this region improved significantly from ₹. 31.56 crores to ₹. 190.94 crores during the study period of 2000-01 to 2011-12 and the profitability performance of SKGB, which is not considered for merger, have also been improved after consolidation (**Table: 2**).
- Remarkable improvement on the profitability performance is noticed in case of Uttar Bihar Gramin Bank (UBGB). During pre merger period from 2000-01 to 2005-06, net profit of the bank dropped to ₹. (-) 32.44 crores from ₹. 7.36 crores. Whereas in post merger period (i.e. 2006-07 to 2011-12), the picture turn around; net profit improved from ₹. 3.21 crores to ₹. 125.59 crores. Improved trend in profitability performance, as a consequence of merger, assist UBGB to wipe off their accumulated losses at post-merger period which stood at ₹. 501.15 crores before merger process begin (**Fig: 2**).
- Madhya Bihar Gamin Bank (MBGB) and Bihar Kshetriya Gramin Bank (BKGB), the other two merged RRBs in Bihar state, were also able to lift their individual financial viability by improving in earnings. Developed trend in profitability performance on merger help in MBGB to clean their accumulated losses during post-merger period which stood at ₹. 51.24 crores in 2005-06 (**Fig: 2**). Net profit of BKGB was also increased appreciably by ₹. 16.76 crores to ₹. 17.91 crores during 2006-07 to 2011-12 (**Table: 2**).
- Samastipur Kshetriya Gramin Bank (SKGB), the stand alone non-merged RRB in Bihar state was able to raise their individual profitability performance from ₹. (-) 3.28 crores to ₹. 5.70 crores during post-merger period; whereas at pre-merger period, net profit of SKGB dropped to ₹. (-) 4.04 crores from ₹. 1.31 crores (**Table: 2**).
- As on 31st march, 2012, RRBs in Bihar state hold 3.04 % (i.e. ₹.40.49 out of ₹.1332.57 crores) and 4.3 % (i.e. ₹.40.49 out of ₹.942.40 crores) of the total accumulated losses of RRBs in India and in eastern region respectively. The share of RRBs in Bihar State dropped considerably from 16.81 % to 3.04 % (all India) and from 37.26 % to 4.3 % (eastern region) respectively during 2000-2012 (**Fig:1**). But despite merger, RRBs except Bihar state in eastern region are unable to reduce their accumulated losses in line with other banks in India. Accumulated losses of RRBs in eastern region (except Bihar state) increased to ₹. 942.40 crores from ₹.790 crores during 2000-2012.

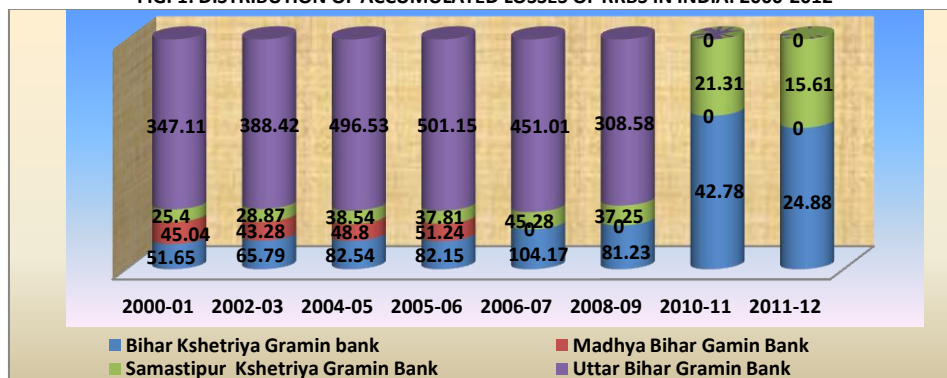
TABLE: 5.1 PROGRESS IN PROFIT & LOSSES OF RRBS IN BIHAR STATE DURING THE PERIOD 2000 -2012 (₹. in crores)

RRBs / year	2000-01	2002-03	2004-05	2005-06	2006-07	2008-09	2010-11	2011-12
Bihar Kshetriya Gramin Bank (BKGB)	0.18	(12.96)	82.54	1.49	1.15	14.40	15.82	17.91
Madhya Bihar Gamin Bank (MBGB)	22.71	35.37	48.80	31.76	17.09	16.31	51.09	41.74
Samastipur Kshetriya Gramin Bank (SKGB)	1.31	(2.08)	38.54	(4.04)	(3.28)	6.74	4.77	5.70
Uttar Bihar Gramin Bank (UBGB)	7.36	(32.96)	496.53	(32.44)	3.21	93.63	130.48	125.59
Bihar State	31.56	(12.63)	666.41	(6.21)	18.17	131.08	202.16	190.94
Eastern Region	42.49	(63.02)	1585.59	(97.34)	(28.73)	181.96	245.03	313.72
All India	600.61	518.98	2730.51	602.20	786.13	1335.94	1785.86	1870.18

Notes: Figure - in bracket indicates losses.

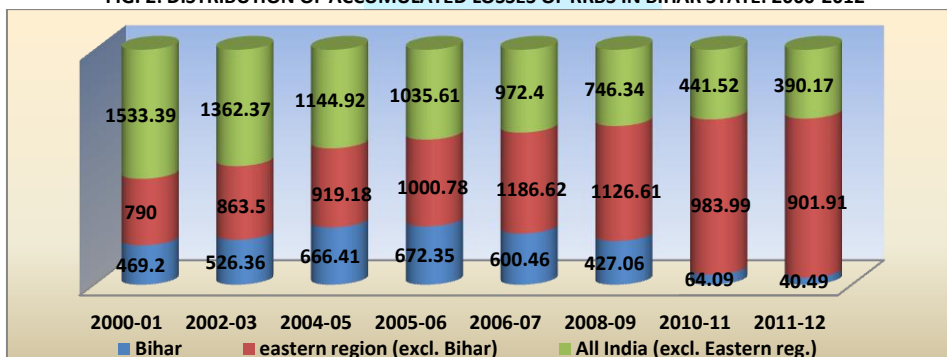
Source: Key Statistics on Regional Rural Banks: 2000-01 to 2011-2012, Institutional Development Department, NABARD, Mumbai.

FIG. 1: DISTRIBUTION OF ACCUMULATED LOSSES OF RRBS IN INDIA: 2000-2012



Source: Key Statistics on Regional Rural Banks: 2000-01 to 2011-2012, Institutional Development Department, NABARD, Mumbai.

FIG. 2: DISTRIBUTION OF ACCUMULATED LOSSES OF RRBS IN BIHAR STATE: 2000-2012



Source: Key Statistics on Regional Rural Banks: 2000-01 to 2011-2012, Institutional Development Department, NABARD, Mumbai.

6. CONCLUSION

It may be sum up that till 2012, the route of merger taken up for improving operating performance of RRBS in Bihar state, was succeed in improving profitability and viability position of the respective banks in this region. Consolidation of the banks help in reducing accumulated losses position (from ₹. 469.2 crores to ₹. 40.9 crores). For some of the banks viz. UBGB merger process has established a turnaround story. However, story behind the success of consolidation of RRBS in this region are stated below:-

- After merger, the RRBS in Bihar State are gradually evolving as business entities capable of competing with other RFIs. The traditional role of catering to the credit needs of target group clientele continues with them, but the expansion of business through NTG (non-target group) financing has opened up new vistas. Thus the RRBS, particularly those banks which have business presence in urban/semi-urban areas with more sophisticated clientele, are upgrading the quality of services to meet their expectation. The merged banks are shedding their earlier image of 'narrow banking', consider providing a range of products encompassing all financial needs and focus on 'financial inclusion' thorough progressive use of technologies and low cost alternative delivery channels. They are also adopting different business models including the 'business facilitators' and 'business correspondent' models and involving intermediaries like NGOs/ MFIs, post offices for expansion of outreach and thorough use of technology based solutions.
- The merged RRBS were establishing a strong links with NGOs, Government and other extension agencies, community based organizations, corporate, research institutions and socially and developmentally disposed individuals and organizations to build up people potential.
- There may be occasions when the rural bank in this region would have opportunities to finance in excess of the exposure limits under regulatory norms or self-imposed norms by the Board of Directors. After consolidation merged RRBS in Bihar state are now joining in consortium finance arrangements on *pari passu* basis with public sector banks.
- Merged RRBS were now playing a credit-led leadership role by providing credit across the supply chain including storage, processing, transportation, marketing and retailing. An important advantage of the approach is that credit disbursed to one segment will help in recovery of loans from another link in the chain.
- The relationship between sponsor banks and RRBS are now changed into a synergistic one, beneficial to both banks. After consolidation, an MOU (i.e. memorandum of understanding) are now executed between the sponsor bank and the GOI and between the RRBS with their respective sponsored banks with regard to the monitoring of performance of RRBS under various key parameters e.g., incremental growth in business, outreach, profitability, improvement in CD ratio, reduction in NPAs etc.
- Mechanization and computerization of the banking services.

The structural consolidation of the RRBS through amalgamation has bought tremendous opportunities for RRBS in Bihar State to groom. It enabled them to become financially sound and bigger in terms of business volume as well as outreach. The amalgamation of loss making RRBS has improved the profitability of RRBS and has grown the number of profit making RRBS. Consolidation has set up a new dimension of rural banking culture in this region.

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PERFORMANCE OF MGNREGA IN MANIPUR: A CROSS DISTRICT ANALYSIS

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ABSTRACT

The Mahatma Gandhi National Rural Employment Guarantee Act, the flagship welfare programme was introduced in February 2, 2006. Under this Act, every adult member of any rural household who is willing to do unskilled manual work have a legal right to get 100 days in a financial year at the statutory minimum wage. On 1st April, 2008 the act has been extended to the entire rural areas of India. Manipur, one of the eight north eastern states of India is a rural-based economy where majority of the population depend on agriculture. In this context, the rural employment guarantee programme has played a significant role in alleviating the rural poverty by giving them hundred days guaranteed job during a year. The Act was operating in Manipur from February 2, 2006 and covered the entire districts of the state on 1st April, 2009. The purpose of the study is to analyse the performance of Mahatma Gandhi National Rural Employment Guarantee Act in Manipur state with cross district analysis. However, the paper finds inter-district variation using some important indicators like the average person days generated per household, the proportion of works completed to works taken up and the proportion of total funds expenditure to total available funds. The study found that Senapati district performed better as compared to the rest of the districts while the Thoubal district performed the worst. Out of the nine districts, five districts performed better than the state Composite Achievement Index while the remaining districts were lagging behind.

KEYWORDS

Employment, Manipur, MGNREGA.

1. INTRODUCTION

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), the flagship welfare programme of India was passed by the Parliament in August 2005 and came into effect on 7th September 2005. Under this Act, every adult member of any rural household who is willing to do unskilled manual work have a legal right to get 100 days in a financial year at the statutory minimum wage. The law was initially called the NREGA (National Rural Employment Guarantee Act) but was renamed as the MGNREGA on 2nd October, 2009 on the eve of the birth anniversary of the Father of Nation, Mahatma Gandhi. It brings a path breaking legislation that provides a social safety net to the poor people in India. On February 2, 2006, the MGNREGA came into force in 200 most backward districts of India (Known as Phase I districts) formally launched at Bandlapalle village in Ananthpur District of Andhra Pradesh. It was further extended to 130 additional districts w.e.f. 1st April 2007 (Known as Phase II districts) making a total of 330 districts under the act. The Act has been universalised w.e.f. 1st April 2008 to cover all the remaining backward districts in the country except the districts that have hundred per cent of urban population (NREGA, 2008). It is found as one of the world's largest public employment guarantee programme to give the right to employment to every rural household.

The prime objective of the Act is to enhance wage employment and rural development with an aim to eradicate poverty, to promote social and gender equality (as per rules of the Act, 23 % of workers are Scheduled Castes¹, 17 % are Scheduled Tribes¹ and 50 % are women under the scheme), in order to reduce the pull and push migration of the rural poor and to create useful assets in rural India. As a reason of these one can proudly say that the "MGNREGA is hope of the poor" (Maruti and Shivaji, 2012). For the first time in India, the poor people in rural areas can now demand work if he/she needs it without waiting for the government to initiate a particular programme or without having to be selected as a Below Poverty Line (BPL)² family (Kamath, 2010). The Act addresses to suggest the kinds of work which causes persistent poverty like drought, deforestation and soil erosion, so that the process of employment generation is maintained on sustainable basis. The main provisions of the MGNREGA are:

- Adult members of a rural household, willing to do unskilled manual work, may apply for registration in writing or orally to the locally Gram Panchayat.³
- The Gram Panchayat after due verification will issue a job Card. The job Card will bear the photograph of all adult members of the household willing to work under NREGA and is free of cost.
- The job Card should be issued within 15 days of application.
- A job Card holder may submit a written application for employment to the Gram Panchayat, stating the time and duration for which work is sought. The minimum days of employment have to be at least fourteen.
- The Gram Panchayat will issue a dated receipt of the written application for employment, against which the guarantee of providing employment within 15 days operates.
- Employment will be given within 15 days of application for work, if it is not then daily unemployment allowance as per the Act, has to be paid liability of payment of unemployment allowance is of the States.
- Work should ordinarily be provided within 5 km radius of the village. In case work is provided beyond 5 km, extra wages of 10 per cent are payable to meet additional transportation and living expenses.
- Wages are to be paid according to the Minimum Wages Act 1948 for agricultural labourers in the state, unless the Centre notifies a wage rate which will not be less than ₹ 60 per day. Equal wages will be provided to both men and women.
- Wages are to be paid according to piece rate or daily rate. Disbursement of wages has to be done on weekly basis and not beyond a fortnight in any case.
- At least 1/3rd beneficiaries shall be women who have registered and requested work under the scheme.
- Work site facilities such as crèche, drinking water, shade and first aid have to be provided.
- The shelf of projects for a village will be recommended by the Gram Sabha⁴ approved by the Zilla Panchayat.⁵
- At least 50 per cent of works will be allotted to Gram Panchayats for execution.
- Permissible works predominantly include water and soil conservation, afforestation and land development works.
- A 60:40 wage and material ratio has to be maintained. No contractors and machinery is allowed.
- The Central Government bears the 100 per cent wage cost of unskilled manual labour and 75 per cent of the material cost including the wages of skilled and semi-skilled workers.

- Social Audit has to be done by the Gram Sabha.
- Grievance redressal mechanisms have to put in place for ensuring a responsive implementation process.
- All accounts and records relating to the Scheme should be available for public scrutiny.

The focus of the MGNREGA includes works carried out on common land i.e., water conservation and water harvesting; Drought proofing (including afforestation and plantation); Irrigation canals including micro and minor irrigation works; Provision of irrigation facility; Renovation of tradition water bodies including desilting of tanks; Land development; Flood control and protection works including draining in water logged areas; Rural connectivity to provide all-weather access; Horticulture plantation and land development facilities to land owned by households belonging the Scheduled Castes (SCs) and the Scheduled Tribes (STs) or Below Poverty Line (BPL) families or to beneficiaries of land reforms⁶ or to the beneficiaries under the Indira AwasYojana⁷ of the Government of India or that of the small farmers or marginal farmers as defined in the "Agriculture Debt Waiver and Debt Relief Scheme, 2008"⁸ (NREGA, 2009).

The purpose of the study is to analyse the performance of MGNREGA in Manipur state with cross district analysis. For a better understanding of the study the paper is divided into five sections. Section 1 gives a brief introduction of MGNREGA. Section 2 describes the brief profile of the state while section 3 informs about the methodology and data source. Section 4 discusses the status of different districts according to their performances and Section 5 determines the composite achievement index and relative position of all the districts. Finally, Section 6 summarises the study and offer a concluding remark.

2. THE PROFILE OF MANIPUR STATE

Manipur, one of the eight states of the North-East India⁹ is located in the slopes of the Sub-Himalayan Ranges at latitude 23°50' N to 25°42' N and longitude 92°58' E to 94°45' E. The state is surrounded on all sides by hills and the centre is a small oval-shaped valley. It shares the boundary with Nagaland in the North, Mizoram in the South and Assam in the West among the Indian states and shares the international border with Myanmar in the East as well as the South. It covers an area of 22, 327 sq.km. which forms 0.7 per cent of the total land of India. The capital city of Manipur i.e., Imphal stands at an altitude of 790 metres above the M.S.L. About Ninety per cent of the total area of Manipur i.e., 20, 089 sq.km. is covered by hills which comprises five districts namely, Senapati, Tamenglong, Churachandpur, Chandel and Ukhrul while the remaining 10 per cent of the area i.e., 2, 238 sq.km. is a small valley constituting four districts viz., Imphal East, Imphal West, Bishnupur and Thoubal (the state has currently nine administrative districts).

According to 2001 census, the population of Manipur is 22.9 lakh (of which 11.6 lakh were males and 11.3 lakh were females) which constitute nearly 0.22 per cent of the total population of India. There are 7 scheduled castes (SCs) communities and 33 scheduled tribes (STs) communities in Manipur (Economic Survey, Manipur, 2008-09). The density of population of the state as per 2001 census was 103 persons per sq.km. as against 82 persons per sq.km. in 1991 census. Regarding the size of the district population, the valley districts, namely, Imphal-West, Imphal-East, Thoubal and Bishnupur districts are most populous districts in the state which accounted 61.54 per cent of State's population in 2001 census.

Agriculture plays a significant role in the economy of the state which contributes 23.61 per cent to the Total State Domestic Product in 2008-09 (RBI, 2010-11). About 52 per cent of the total workers are engaged in cultivation and Agricultural labourers. However, the performance of agriculture in the state mainly depends on timely rainfall and weather conditions. The number of person BPL was 3.76 lakh (22.3 %) and 0.20 lakh (3.3 %) in the rural and urban Manipur respectively according to 61st Round (2004-05) of National Sample Survey (NSS).

In Manipur maximum numbers of people live in rural areas constituting about 74.89 per cent (17.14 lakh) of the total population. Enhancement in the quality of life of the economically weaker sections of the society through generating employment, improving the health facilities, providing cheap education facilities, rural infrastructure, etc. has been one of the basic objectives of the development planning of the state. In order to achieve this goal a number of programmes viz., SGSY¹⁰ (Swarnjayanti Gram SwarozgarYojana), IAY (Indira AwaasYojana), PMGSY¹¹ (PradhanMantri Gram SadakYojana), Bharat Nirman¹², SSA¹³ (SarvaShikshaAbhiyan), Mid-day Meal Scheme¹⁴, MGNREGA, etc. have been implemented in the state. These programmes ensure minimum wage to vulnerable rural households and enable them to acquire assets and income through self-employment ventures which gives an opportunity to combine growth with equity (Economic Survey, Manipur, 2008-09).

3. DATA SOURCE AND RESEARCH METHODOLOGY

The study is based on the data of secondary sources which is availed from the official website of Mahatma Gandhi National Rural Employment Guarantee Act (www.nrega.nic.in). For the measurement of the performance of MGNREGA in the different districts of the state of Manipur, three indicators are used:

1. Average Person days generated per Households
2. Proportion of works Completed to works Taken up
3. Proportion of total fund expenditure

All the three indicators mentioned above are taken from the financial year, 2010-11. These indicators were then converted into scores by using the UNDP's Human Development Index construction method (Mukherjee and Ghosh, 2009). As a result there emerge three indices like:

- ❖ AIP (Achievement Index with respect to the Average Person days generated per Households);
- ❖ AIW (Achievement Index with respect to the Proportion of work Completed to works taken up); &
- ❖ AIF (Achievement Index with respect to the Proportion of total fund Expenditure)

From these three indices, the Composite Achievement Index (CAI) can be determined to show the relative position of all the districts in order of their respective ranks.

4. PERFORMANCE OF MGNREGA IN THE DISTRICTS OF MANIPUR

The MGNREGA is now in its seventh year to achieve its twin objectives that is to create employment and rural development. If the Act is implemented effectively, it can not only enhance the income of the rural poor in the short-term but also can create durable assets in the villages and generate productive infrastructure in a sustainable manner which is needed for alleviation of poverty in the long-run (Mukherjee and Ghosh, 2009). It has created a sense of hope amongst the rural poor which can be further strengthened if people understand that the act gives them employment as a matter of right and that claiming this right is within the realm of possibility (Bhatia and Dreze, 2006).

Tamenglong district of Manipur state is one among the 200 most backward districts in India selected for launching the MGNREGA enacted by the UPA Government to provide a legal guarantee for 100 days of work to rural households on February 2, 2006. Subsequently, Churachandpur and Chandel districts had been covered under the Act in the second phase w.e.f. April 1, 2007. The remaining six districts of Manipur i.e., Bishnupur, Imphal-East, Imphal-West, Senapati, Thoubal and Ukhrul have also been covered under the Act w.e.f. April 1, 2008.

4.1 AVERAGE PERSON DAYS PER HOUSEHOLD (APDH)

The first indicator, Average Person Days per Household is the ratio of employment provided to the person days and employment provided to Households. The APDH of all the districts was then converted into scores to get the Achievement Index with respect to APDH (AIP).

TABLE 1: EMPLOYMENT GENERATED DURING THE YEAR, 2010-11

Phase	Districts	Employment provided to Households	Persondays of Employment provided (in Lakh)	Average persondays per Households	Achievement Index (AIP)	Rank
I	TAMENGLONG	24618	20.43	82.99	0.80	5
II	CHANDEL	31188	31.17	99.94	1	2
	CHURACHANDPUR	54055	54.05	99.99	1	1
III	BISHNUPUR	36276	23.94	65.99	0.61	6
	IMPHAL EAST	62146	22.60	36.36	0.27	8
	IMPHAL WEST	52811	31.38	59.42	0.53	7
	SENAPATI	78405	65.66	83.75	0.81	4
	THOUBAL	48957	6.43	13.14	0.00	9
	UKHRUL	45400	39.95	88.00	0.86	3
	TOTAL	433856	295.61	68.14	0.63	

Source: www.nrega.nic.in and Author's own calculation

Four districts out of nine lies below the overall state APDH i.e., Bishnupur (65.99), Imphal-West (59.42), Imphal-East (36.36) and Thoubal (13.14). Following the AIP, Churachandpur district stood the first and Thoubal district stood last among the nine districts.

4.2 PROPORTION OF WORKS COMPLETED TO WORKS TAKEN UP (PWCWTU)

Proportion of Works Completed to Works Taken Up is the ratio of works completed and works taken up. The result shows that out of nine districts, four districts i.e., Chandel, Churachandpur, Bishnupur and Senapati give the total result for works completed to the total works taken up (Table 2). For the rest, PWCWTU is in between 17 per cent to 94 per cent- Thoubal (17.13 per cent), Ukhrul (56.36 per cent), Tamenglong (77.35 per cent), Imphal-East (81.40 per cent) and Imphal-West (94.88 per cent).

TABLE 2: PROPORTION OF WORKS COMPLETED TO WORKS TAKEN UP DURING THE YEAR, 2010-11

Phase	Districts	Total Works Taken Up	Total Works Completed	Proportion of Works Completed (in %)	Achievement Index (AIW)	Rank
I	TAMENGLONG	945	731	77.35	0.73	4
II	CHANDEL	1043	1043	100.00	1	1
	CHURACHANDPUR	1845	1845	100.00	1	1
III	BISHNUPUR	421	421	100.00	1	1
	IMPHAL EAST	215	175	81.40	0.78	3
	IMPHAL WEST	781	741	94.88	0.94	2
	SENAPATI	2459	2459	100.00	1	1
	THOUBAL	356	61	17.13	0	6
	UKHRUL	747	421	56.36	0.47	5
	TOTAL	8812	7897	89.62	0.87	

Source: www.nrega.nic.in and Author's own calculation

After the conversion of PWCWTU into scores to get AIW, it is found that Chandel, Churachandpur, Bishnupur and Senapati stood first because of acquiring the same rank. Imphal-West stood second in rank followed by Imphal-East, Tamenglong, and Ukhrul. Here also, Thoubal district stood last according to the performance of total works completed to total works taken up.

4.3. PROPORTION OF TOTAL FUNDS EXPENDITURE (PTFE)

Proportion of Total Funds Expenditure (PTFE) shows the ratio of total funds expenditure and the total available funds. Two districts exceeds total expenditure to their total available funds out of nine districts i.e., 147.81 per cent total expenditure by Tamenglong and 128.63 per cent by Senapati. Due to this, the state average becomes 104.53 per cent. Following these two districts, the PTFE of Churachandpur, Bishnupur and Ukhrul district were near about to utilise the total available funds i.e., 99.93 per cent, 99.60 per cent and 99.95 per cent respectively.

TABLE 3: TOTAL UTILISED FUNDS AS A PROPORTION OF THE TOTAL AVAILABLE FUNDS DURING THE YEAR, 2010-11

Phase	Districts	Total Available Funds (₹ in Lakh)	Total Expenditure (₹ in Lakh)	Proportion of Total Funds Expenditure (%)	Achievement Index (AIF)	Rank
I	TAMENGLONG	1749.19	2585.47	147.81	1	1
II	CHANDEL	4204.22	3638.74	86.55	0.24	8
	CHURACHANDPUR	7534.02	7529.08	99.93	0.41	4
III	BISHNUPUR	4413.21	4395.34	99.60	0.40	5
	IMPHAL EAST	3451.35	3043.81	88.19	0.26	7
	IMPHAL WEST	4510.67	4041.89	89.61	0.28	6
	SENAPATI	10188.94	13106.33	128.63	0.76	2
	THOUBAL	1140.87	762.09	66.80	0	9
	UKHRUL	4970.12	4967.76	99.95	0.41	3
	TOTAL	42162.59	44070.51	104.53	0.47	

Source: www.nrega.nic.in and Author's own calculation

Among the remaining seven districts, Thoubal district's PTFE was only 66.80 per cent which shows the lowest utilisation of the fund available in comparison to the other districts. Therefore, there were seven districts that were below the state average out of nine.

The AIF can be determined by the similar method as mentioned earlier. Out of nine districts only two districts were above the state PTFE. Amongst them, Tamenglong district scores the highest and Thoubal district score the lowest.

5. COMPOSITE ACHIEVEMENT INDEX AND THE RELATIVE POSITION OF ALL THE DISTRICTS

In the final and last stage, all the individual scores of AIP, AIW and AIF are added up to obtain the final scores by giving 50 per cent weights to the first indicator and 25 per cent weights to each of the other two indicators (Mukherjee and Ghosh, 2009). The districts were then ranked according to the composite index of their performance.

TABLE 4: COMPOSITE INDEX AND THE RELATIVE POSITION OF ALL THE DISTRICTS OF MANIPUR DURING THE YEAR, 2010-11

Phase	District	AIP	AIW	AIF	CAI	Rank
I	TAMENGLONG	0.80	0.73	1.00	0.814	3
II	CHANDEL	1.00	1.00	0.24	0.811	4
	CHURACHANDPUR	1.00	1.00	0.41	0.852	2
III	BISHNUPUR	0.61	1.00	0.40	0.753	5
	IMPHAL EAST	0.27	0.78	0.26	0.521	8
	IMPHAL WEST	0.53	0.94	0.28	0.673	6
	SENAPATI	0.81	1.00	0.76	0.894	1
	THOUBAL	0.00	0.00	0.00	0.000	9
	UKHRUL	0.86	0.47	0.41	0.554	7
	TOTAL	0.63	0.87	0.47	0.712	

Note: AIP = Achievement Index with respect to the Average person days generated per Household; AIW = Achievement Index with respect to the Proportion of Work Completed; AIF = Achievement Index with respect to the Proportion of Total Funds Expenditure; CAI = Composite Achievement Index

The Composite Achievement Index (CAI) can determine the relative position of all the districts under consideration according to their performance with respect to all the three indicators. Table 4 shows that out of nine districts, Thoubal district performed the worst according to the CAI. Five districts performed better than the state CAI. They were Tamenglong, Chandel, Churachandpur, Bishnupur and Senapati. According to the rank-wise, Senapati stood first, followed by Churachandpur and then by Tamenglong. Thoubal district stood the last by showing no performances in all the three indicators as compared to the rest of the districts.

6. CONCLUSIONS

The MGNREGA was introduced to tackle the problems of widespread rural unemployment and underemployment in different parts of India, especially in the poorer districts. While it can take account of likely seasonal variations in the labour market, it is not designed specifically to handle sudden onset of disasters during the course of the year (Krishnamurty, 2006).

In the state of Manipur, poverty is found to be very high in rural areas as compared to that of the urban areas. The number of poor in rural areas is six times higher than that of in urban areas though the population concentration in urban areas is nearly two times larger than the rural areas. Majority of rural people directly depends on agriculture for their economy. These agricultural products came from the large-scale practice of shifting (Jhum¹⁵) cultivation in rural areas which led to turn most of the land into uncultivable barren land. As a result, many rural poor become unemployed and they have come down below the poverty line (Haokip, 2012). In this context, MGNREGA plays an important role in maintaining the rural employment which helps people living in rural areas to sustain themselves during the off-harvest season.

Currently the Act is operating in all the districts of Manipur. The above study shows that Senapati district performed better as compared to the rest of the districts while the Thoubal district performed the worst. Out of the nine districts, five districts performed better than the state CAI while the remaining districts were lagging behind.

The MGNREGA promotes the rural infrastructure, reduces migration and unemployment of rural people, increases agricultural production, reduces flood affected areas, promotes better rural communication, increases vegetation covered area and augments financial activities of rural household as well as of women in spite of the poor awareness among the rural population, delay in wage payment, corruption and irregularities, lack of transparency and accountability, shortage of staff, absence of effective grievance redressal system etc.

In order to eliminate the problems stated above there is an urgent need to initiate the measures such as creation of widespread awareness, wages should be made regular, transparency and disclosure practices, sufficient staff should be recruited and proper training of the programme should be given, each district should provide facilities at worksite as per norms of the Act, effective grievance redressal system and financial inclusion through banks and Insurance companies should be promoted. If the MGNREGA is implemented in a sound manner, it has the power to promote the economic condition of the rural people.

NOTES

1. Scheduled Castes (SCs), also known as the "Dalit" and the Scheduled Tribes (STs) are two groupings of historically disadvantaged people that are given express recognition in the Constitution of India. The SCs and STs make up around 15 % and 7.5 % respectively of the population of India, or around 24 % altogether, according to the 2001 census.
2. Below Poverty Line is an economic benchmark and poverty threshold used by the government of India to indicate economic disadvantage and to identify individuals and households in need of government assistance and aid. The Tendulkar Committee report that, 37 % of people in India live below poverty line.
3. Gram Panchayat are local self-governments at the village or small town level in India. It consists of a between 7 and 17 members, elected from the wards of the village, and they are called a "panch". Peoples of village selects panch, with one-eighth of seats reserved for female candidates. To establish a Gram Panchayat in a village, the population of the village should be at least 500 people of voting age (anyone who is 18 years old and more). The Gram Panchayat is the foundation of the "Panchayati Raj" system in India.
4. Gram Sabha is a "body consisting of persons registered in the electoral rolls (who should have completed 18 years old) relating to a village comprised with the area of Panchayat at the village level" (according to Article 243 (B) of the Indian Constitution).
5. Zilla Panchayat is one of the 3-tier systems of Panchayati Raj system in India. It is a district level governing system. It provides essential services and facilities to the rural population.
6. Land Reforms in India: Soon after independence, i.e., 1947, India has adopted a Land Reforms programme which includes elimination of intermediaries, tenancy reforms and consolidation of holdings.
7. Indira Awas Yojana is a Government of India social welfare programme to provide housing for the rural poor in India. This scheme, operating since 1985, provides subsidies and cash-assistance to people in villages for constructs their houses themselves.
8. Small Farmers or Marginal Farmers as defined in Agriculture Debt Waiver and Debt Relief Scheme, 2008: 'Marginal Farmers' means a farmer cultivating (as owner or tenant or share cropper) agricultural land up to 1 hectare (2.5 acres) and 'Small Farmers' means a farmer cultivating (as owner or tenant or share cropper) agricultural land of more than 1 hectare and up to 2 hectares.
9. North-Eastern states of India refer to the easternmost region of India consisting of the Arunachal Pradesh, Assam, Manipur, Meghalaya, Nagaland, Sikkim and Tripura. They are ethnically distinct from the rest of India and have strong ethnic and cultural ties with East Asia and Southeast Asia.
10. Swarnjayanti Gram Swarozgar Yojana (SGSY) is an initiative launched by the Government of India on April 1, 1999 to provide sustainable income to poor people living in rural areas of the country. The SGSY aims at providing self-employment to villagers through the establishment of Self-help groups.
11. The Pradhan Mantri Gram Sadak Yojana is a nationwide plan in India to provide good all-weather road connectivity to unconnected villages. It was launched on 25 December, 2000. The programme envisages connectivity all habitations with a population of 500 persons and above in plain areas and 250 persons and above in Hill states, Tribal areas, Desert area and in the Left Wing Extremism affected / Integrated Action Plan districts as identified by the Ministry of Home Affairs / Planning Commission.

12. Bharat Nirman is an Indian plan for creating basic rural infrastructure. It seeks to provide electricity to all remaining villages, drinking water supply to all uncovered and slipped-back habitations, connect all habitations with a population of 1000 (500 in hilly and tribal areas) with an all-weather road, create additional irrigation capacity of ₹ 1 crore hectares, build 60 lakh houses for the rural poor and cover every village with a telephone.
13. SarvaShikshaAbhiyan or "Education for all programmes" is the national flagship programme aimed at the universalization of elementary education "in a time bound manner" as mandated by the 86th Amendment to the Constitution of India making free and education to children of ages 6-14 a fundamental right.
14. Mid-day Meal Scheme is a popular name for school meal programme in India which started in the 1960s. It involves provision of lunch free of cost to school children on all working days. The key objectives of the programme are protecting children from classroom hunger, increasing school enrolment and attendance, improved socialisation among children belonging to all castes, addressing malnutrition, and social empowerment through provision of employment to women.
15. "Jhum" or "Jhoom" cultivation is an agricultural practice done by the tribal groups in the north eastern states of India. This practice involves clearing a piece of land by setting fire or clear felling and using the area for growing crops of agricultural importance such as upland rice, vegetables or fruits.

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A STUDY ON PROSPECTS AND FINANCE PROBLEMS OF FOOD BASED SMALL SCALE INDUSTRIES WITH SPECIAL REFERENCE TO MADURAI

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ABSTRACT

Food is the basic need of human life. A human or any living thing can live without any luxuriury of life but they cannot survive without food. Finance is a key input of product distribution and development. It is therefore, aptly described as the "life-blood" of industry and is pre-requisite for accelerating the process of industrial development. An important problem faced by food based small-scale industries in the country is that of finance. The problem of finance in food based small sector is mainly due to two reasons. First, it is partly due to scarcity of capital in the country as a whole. Secondly, it is partly due to weak credit worthiness of small units in the country. Due to this weak economic base, they find it difficult to take financial assistance from the commercial banks and financial institutions. As such they are bound to obtain credit from the money lenders at a very high rate of interest and are thus exploited in practice.

KEYWORDS

Entrepreneurs, food based small scale industry, district industry centre.

INTRODUCTION

TO A MAN WITH AN EMPTY STOMACH, FOOD IS GOD.

-MAHATMAGANDHI

India is the second largest producer of food and holds the potential to be the biggest on global food and agriculture canvas, according to the Corporate Catalyst India (CCI) survey. The food industry in India comprises food production and the food processing industry. The food processing industry is one of the largest in India – it is ranked fifth in terms of production, consumption, export and expected growth. Food industry has the potential for providing employment not only to the skilled workers presently engaged in this industry, but also to the considerably large labour force scattered around village and the centers of production.

NEED OF THE STUDY

Madurai district is predominantly offering good scope for the establishment of small scale industry units in the fields of textiles heavy engineering ,fabrication, plastic, confectionery, automobile spare parts readymade garments, bakery, dairy horticulture, herbal medicines, cold storage etc.,. The cluster based small scale industry units and non-resource base industries are also possible. There is also very good scope for establishing bakery and biscuit manufacturing unit's sugar candy and confectionery, preservation of fruits and vegetables, manufacturing of dairy products, potato chips, roasted cashew nuts, tomato juice, sarce, fruit squashes, mushroom processing, and extraction of perfumes, appalam and papad manufacturing units. A number of reports, articles, surveys and studies have been published on various problems facing the Indian food industry. But not many systematic and research studies exist on the subject related to food industries in Madurai. The present study aim at analyzing the existing state of the industry and also identifies the problems confronting it.

STATEMENT OF THE PROBLEM

The present study attempts to throw light on the varied problems of the small scale units in food industries.

- ❖ Food service industry is facing many challenges, such as increased pressure on **raw material costs**, **delay in getting finance**, **food safety**, regulation on quality and hygiene, excessive wastages, poor product shelf life, shortage of skilled manpower etc.,.
- ❖ Cost of food industry is more compared to other industry due to special cost involved in **processing, handling and packaging**.
- ❖ Events like **Commonwealth games in India**, increased the awareness on food safety and globalization continued to increase the survival and **operational pressures** on food industry thereby increasing costs further.
- ❖ The most crucial challenge that the present day Indian food industry is forced to face is the lack of suitable infrastructure to overcome the shape of **cold chain, packaging centers, value added centre, modernized abattoirs etc**, and demand for streamlining the improvised general infrastructure.

In the background of these hurdles it is felt inevitable to analyse the aspect related to food industries regarding finance problem. Accordingly the research will attempt to throw light on these issues and remedial measures to tackle the hurdles to enhance the progression of food industries.

OBJECTIVES

1. To examine the growth and prospects of food based small scale industries.
2. To recognize the finance problem of food based small scale industries.
3. To suggest suitable measure for the development of food based scale industries in Madurai.

METHODOLOGY

The study is mainly based on primary data collected from selected industry. Necessary information for the study was collected through questionnaire, field – work such as personal interviews and discussion with the manager/owner of the industry. The stratified convenient sampling technique is adopted for selecting 200 units, spread wide over different centers of production have been selected for the study. The information about the list of units was obtained from, **MADITSSIA and district industries centers and associations of manufacturers**. Secondary data for the study were also collected from published and unpublished works on the related topics, census reports, economic surveys, Journals and news papers.

FRAMEWORK OF ANALYSIS

The data were analyzed by using appropriate statistical techniques such as Percentage analysis, Chi-square, Garret Ranking, Weighted average method, Intensity value and, kruskal Wallis.

GENERAL PROFILE OF THE ENTREPRENEURS (UNITS)

An attempt has been made to analyse the growth and prospects of food based small scale industries. Percentage analysis tools were used to analyse the profile of the sample entrepreneurs.

TABLE-1: CLASSIFICATION BASED ON THE SAMPLE ENTREPRENEURS

	Variables	Classification	percentage
1	Generation of entrepreneur	First generation	53.5
		Second generation	41.5
		Hereditary	5
2	Before taking of entrepreneurship	Searching for employment	20
		Engaged in some other industry	5
		Agriculture activity	37.5
		Studentship	18.5
		Employed	19
3	Ownership structure	Proprietorship	28.5
		Partnership	55
		Private ltd	20.5
4	Experience	Less then 5 years	38.5
		5-10 years	16
		Above 10 years	45.5
5	Location of the units	Near by their residence	21
		Attached to the residence	13
		Industrial estate	43
		Away from city	22

Source: primary data

It is observed from the table 1 that out of the total entrepreneurs, 53.5 percent entrepreneurs belong to the group of first generation , 41.5 percent entrepreneurs belongs to second generation and remaining 5 percent entrepreneurs belongs to hereditary.

It is obvious from the above table that, before taking up this assignment (enterprise) ,37.5 percent respondents were involved in agricultural activity, while 20percent respondents were searching for employment,19 percent respondents were employed ,18.5 percent respondents were studying and the remaining 5 percent respondents were engaged in some other industry.

Table 1 shows that, out of 200 food based small scale industrial units 55 percent entrepreneurs enjoy partnership, and 28.5 per cent entrepreneurs enjoy sole proprietorship, 20.5 percent entrepreneurs enjoy private limited industries.

From the above table (table 1) it is clear that out of 200 sample food based small industry, 45.5 percent entrepreneurs have more than 10 years of existence while 38.5 percent entrepreneurs have less than 5 years existence. It is evident that a minimum of 16 percent entrepreneurs possess 5-10 years of existence in the field of food industry.

Table 1 depicts, that among the 200 food based small scale industrial units, a maximum of 43 percent entrepreneurs locate their industrial unit in industrial estate ,22 percent units locate in away from the city limit, followed by 21 percent industries in nearby their residence, only 13 percent of units locate for attached to the residence.

REASONS FOR LOCATING THE UNIT

Location of the industrial unit is based on several factors such as availability of labour, market, geographical area, easy access to raw materials, government grant, subsidy and infrastructural facilities, The survey shed light on the factors that have mostly influenced the location of the sample entrepreneurs.

TABLE-2: CLASSIFICATION ON THE BASIS OF REASON FOR LOCATING THE UNIT

Sl.no	REASON	No. of respondents assigning the ranks					Weighted score	Weighted Average score	Rank
		I	II	III	IV	V			
1	Availability of labour	44	36	50	19	51	603	3.015	II
2	Availability of market	36	35	66	34	29	615	3.075	I
3	Covering more geographical area	58	41	37	31	33	660	3.3	III
4	Owned land	42	50	15	31	62	570	2.895	IV
5	Availability of good infrastructure facility	25	37	30	85	23	556	2.78	V

Source: primary data

Table 2 reveals the factors which influence for the location of the industries in the study area. The maximum weighted score that, availability of market is ranked the first with score of 3.075 the maximum of entrepreneurs expressed the opinion that market was an important factor in deciding the location. Availability of labour is the second factor which bags the score of 3.015, converging more geographical area is in the third place with the score of 3.3,own land is in the fourth place with the score of 2.895,entrepreneur conveyed that good infrastructure like power, transport and communication facility influenced them to locate their units in the particular area with score of 2.78.

3. CLASSIFICATION ON THE BASIS OF THE REGISTERED MEMBER OF UNIT**TABLE-3: CLASSIFICATION ON THE BASIS OF THE REGISTERED MEMBER OF UNIT**

S.no	Registered Member	Yes		No	
		Number of respondents	Percentage	Number of respondents	Percentage
1	a)District industries centre	184	92	16	8
	b)Quality making scheme	69	34.5	131	65.5
	c)Indian standards institution	110	55	90	45
	d)Food industry association	139	69.5	61	30.5
	b)Central /state government agency	102	51	98	49

Source: primary data

Table 3 indicates that 92 percent of the entrepreneurs have registered their unit in **DISTRICT INDUSTRY CENTRE** and remaining 8 percent entrepreneur have not registered their unit in district industry centre .

Regarding **QUALITY MAKING SCHEMES** 34.5 percent entrepreneurs have registered their units and got certificate rest of 65.5 percent entrepreneurs have not registered their unit in quality making schemes.

55 percent entrepreneurs gained **INDIAN STANDARDS INSTITUTION (ISI)** certificate for their products and 45 percent entrepreneurs have not obtained Indian standards institution (ISI) certificate.

69.5 percent entrepreneur have membership in **FOOD INDUSTRY ASSOCIATION** and 30.5 percent entrepreneurs do not have membership in food industry association.

51 percent units have membership in **OTHER CENTRAL/STATE GOVERNMENT AGENCY** and rest of the 49 percent do not have membership in any other government agency.

4. CLASSIFICATION ON THE BASIS OF OPERATION CHALLENGES FACED BY FOOD BASED SMALL SCALE INDUSTRIAL UNITS

The following table shows the operation challenges faced from food based small scale industry units

TABLE-4: CLASSIFICATION ON THE BASIS OF OPERATION CHALLENGES FACED BY FOOD BASED SMALL SCALE INDUSTRIAL UNIT

S.NO	Challenges	Number of respondents	Percentage
1	Poor demand	21	10.5
2	Limited customers	17	8.5
3	Raw material shortage	32	16
4	Rising raw material prices	11	5.5
5	Power shortage	70	35
6	Skilled labour shortage	22	11
7	Obsolete machinery	27	13.5
8	Taxes and duties	-	-
	Total	200	100

Source: primary data

It is visible from the table (4) that maximum of the 35 percent entrepreneur face power shortage is the important challenges while doing their business operation,16 percent entrepreneur have problem in getting raw material in time (raw material shortage),13.5 percent entrepreneur face the problem in obsolete machinery,11 percent units do not having the required skilled labours,10.5 percent entrepreneurs product have poor demand in market area,8.5 percent entrepreneurs in their product only have a limited number of customers,5.5 percent unit face rising raw material prices is the important problem.

5. OPPORTUNITY GAINED FROM FOOD BASED SMALL SCALE INDUSTRIES

The following table shows the opportunity gained from food based small scale industry

TABLE-5: CLASSIFICATION ON THE BASIS OF OPPORTUNITY GAINED FROM FOOD BASED SMALL SCALE INDUSTRIES

S.NO	Opportunity	Number of respondents	Percentage
1	Knowledge development	40	20
2	Skill promotion	20	10
3	Marketing technique	74	37
4	Economies of scale	6	3
5	Profit strategies	24	12
6	Problem solving	36	18
	Total	200	100

Source: primary data

The above table exhibits the opportunities gained by the food based small scale industries. It is visible from table(5) that 37 percent entrepreneurs have opportunity to know the marketing technique, 20 percent entrepreneurs develop their knowledge, 18 percent entrepreneurs have gained method of problem solving,12 percent entrepreneurs gained profit strategies, 10 percent entrepreneurs promote their skills, and remaining 3 percent entrepreneurs belong to economics scale.

6. ENVIRONMENTAL POLLUTION EXPERIENCED BY SMALL SCALE INDUSTRIAL UNITS IN MADURAI

The following table shows the environmental pollution experienced by small scale industry in Madurai

TABLE-6: CLASSIFICATION ON THE BASIS OF ENVIRONMENTAL POLLUTION

S.no	Environmental pollution	No .of respondents	Percentage
1	a)Complaints		
	i) Yes(having complaints)	117	58.5
	ii) No(not having complaints)	83	41.5
	Total	200	100
2	b) respondents		
	i) Factory	19	16.2
	ii) Villagers	19	16.2
	iii) TNP control board	79	67.5
	iv) Others	-	-
	Total	117	100

Source: primary data

It is obvious from the table(6) that, 58.5 percent units are have complaints about environmental pollution and remaining 41.5 percent units do not have any complaints from pollution control board.

67.5 percent of food based small scale industries units expressed that the environmental pollution complaints was from TNP control board ,and 16.2 percent of food based small scale industries units expressed that the environmental pollution complaints was from factory and villagers respectively.

RELATIONSHIP BETWEEN GENERATION OF ENTREPRENEURS AND THE CHALLENGES FACED IN FOOD BASED SMALL SCALE INDUSTRIES

Generations of entrepreneurs were classified into first, second, hereditary. An attempt has been made to find out the relationship between generation of entrepreneurs and challenges faced.

A null hypothesis has been framed and **CHI-SQUARE** has been used to test the above relationship.

NULL HYPOTHESIS

There is no significant relationship between generation of entrepreneurs and the challenges faced in food based small scale industry

The data and information pertaining to the Relationship between generation of entrepreneurs and the challenges faced in food based small scale industry are given in the following table.

TABLE-7: RELATIONSHIP BETWEEN GENERATION OF ENTREPRENEURS AND THE CHALLENGES FACED IN FOOD BASED SMALL SCALE INDUSTRIES

S.no	Particular	Calculated value	Degrees of freedom	Table value	Result @ 5% level
1	Generation of entrepreneurs	48.004	12	23.3	Significant

Source: Computed data

It is observed from the table (7) that, calculated chi-square value for the generation of entrepreneurs (48.004) at 5 percent degrees of freedom is significant. **Hence it is concluded that, there exists a close association between the generation of entrepreneurs and the challenges faced in food based small scale industries.**

RELATIONSHIP BETWEEN GENERATION OF ENTREPRENEURS AND THE OPPORTUNITY GAINED FROM FOOD BASED SMALL SCALE INDUSTRIES

Generations of entrepreneurs were classified into first, second, hereditary. An attempt has been made to find out the relationship between generation of entrepreneurs and opportunities gained from food based small scale industrial units.

A null hypothesis has been framed and **CHI-SQUARE** has been used to test the above relationship.

NULL HYPOTHESIS

There is no significant relationship between generation of entrepreneurs and the opportunity gained from food based small scale industry.

The data and information pertaining to the Relationship between generation of entrepreneurs and the opportunity gained from food based small scale industry are given in the following table.

TABLE-8: RELATIONSHIP BETWEEN GENERATION OF ENTREPRENEURS AND THE OPPORTUNITY GAINED FROM FOOD BASED SMALL SCALE INDUSTRIES

S.no	Particular	Calculated value	Degrees of freedom	Table value	Result @ 5% level
1	Generation of entrepreneurs	22.46	10	18.3	Significant

Source: Computed data

It is observed from the table (8) that, calculated chi-square value for the generation of entrepreneurs (22.46) at 5 percent degrees of freedom is significant. **Hence it is concluded that, there is close association between the generation of entrepreneurs and the opportunity gained from food based small scale industry.**

RELATIONSHIP BETWEEN EXPERIENCE OF THE UNITS AND THE OPPORTUNITY GAINED FROM FOOD BASED SMALL SCALE INDUSTRIES

Experiences of the food based small scale industrial units were classified into four categories namely less than 5 years, 5-10 years, above 10 years. An attempt has been made to find out the relationship between experience and opportunities gained from food based small scale industrial units.

A null hypothesis has been framed and **CHI-SQUARE** has been used to test the above relationship.

NULL HYPOTHESIS

There is no significant relationship between experience of the units and the opportunity gained from food industry

The data and information pertaining to the Relationship between experience of the units and the opportunity gained from food industry are given in the following table.

TABLE-9: RELATIONSHIP BETWEEN EXPERIENCE OF THE UNITS AND THE OPPORTUNITY GAINED FROM FOOD BASED SMALL SCALE INDUSTRIES

S.no	Particular	Calculated value	Degrees of freedom	Table value	Result @ 5% level
1	Experience of the units	35.797	10	18.3	Significant

Source: Computed data

It is observed from the table (9) that, calculated chi-square value for the life time of the units (35.797) at 5 percent degrees of freedom is significant. **Hence it is concluded that, there is close association between the experience of the units and the opportunity gained from food industries.**

RELATIONSHIP BETWEEN REGISTERED SMALL SCALE INDUSTRY UNITS AND OPPORTUNITY GAINED FROM FOOD BASED SMALL SCALE INDUSTRIES.

The researcher has attempted to analyze the relationship between registered small scale industry units of various associations such as District industries centre, Quality making scheme, Indian standards institution, Food industry association, Central /state government agency and the opportunities gained from food industry. The opportunities gained are Knowledge development, Skill promotion, Marketing technique, Economies of scale, Profit strategies, Problem solving.

A null hypothesis has been framed and **CHI-SQUARE** has been used to test the above relationship.

NULL HYPOTHESIS

There is no significant relationship between the registered small scale industry units various associations and opportunity gained from food industries.

The data and information pertaining to the relationship between relationships between the units registered member of various associations and opportunity gained from food industries are presented in the following table.

TABLE-10: RELATIONSHIP BETWEEN REGISTERED SMALL SCALE INDUSTRY UNITS AND OPPORTUNITY GAINED FROM FOOD BASED SMALL SCALE INDUSTRIES

S.no	Registered member	Calculated value	Degrees of freedom	Table value	Result @ 5% level
1	District industries centre	2.7842	5	11.1	Not significant
2	Quality making scheme	13.417	5	11.1	Significant
3	Indian standards institution	6.360	5	11.1	Not significant
4	Food industry association	12.873	5	11.1	Significant
5	Central /state government agency	26.65	5	11.1	Significant

Source: Computed data

With regards to the registered small scale industry units under various associations, it is observed that, calculated chi-square value for District industries centre (2.7842) Indian standards institution (6.360) at 5 percent level of degrees of freedom is not significant. However Quality making scheme (13.417), Food industry association (12.873), Central /state government agency (26.65) at 5 percent degrees of freedom is significant.

Hence it is concluded that, there is a close association between small scale industry units like Quality making scheme, Food industry association, Central/state government agency and the benefits enjoyed.

SOURCE OF INITIAL CAPITAL (SEED CAPITAL)

The capital is the important key element for the successful life of small scale industries. The initial capital invested (seed Capital) in the units may be from own resource, borrowings from friends and relatives, banks, specialized financial institutions, or from moneylenders.

Table 11 exhibits the details of seed capital invested by the entrepreneurs of food based small scale industries in study area.

TABLE-11: CLASSIFICATION BASED ON THE SOURCE OF INITIAL CAPITAL

S.NO	Source of initial capital	Number of respondents	Percentage
1	Income from agriculture	60	30
2	Savings from salary	23	11.5
3	Friends and relatives	56	28
4	Commercial bank	45	22.5
5	Other sources	16	8
	Total	200	100

Source: primary data

It is observed from the table(11) that, out of the total entrepreneurs 60 percent entrepreneurs have initial capital from agriculture income,28 percent entrepreneurs have borrowed initial capital from friends and relatives,22.5 percent entrepreneurs have borrowed a loan from commercial bank for starting a enterprise,11.5 percent entrepreneurs have savings from their salary to utilize as initial capital (seeds capital) and 8 percent entrepreneurs have initial capital from other sources of income.

FINANCIAL HELP FROM DISTRICT INDUSTRY CENTER CLASSIFICATION OF THE SMALL SCALE INDUSTRIAL UNITS

TABLE-12: CLASSIFICATION ON THE BASIS OF FINANCIAL HELP FROM DISTRICT INDUSTRY CENTER

S.no	Financial help from district industry center	No .of respondents		Percentage	
1	a)Financial help				
	i)Yes(received)	32		16	
	ii)No(not received)	168		84	
	Total	200		100	
2	b)Purposes(if received)	Yes		No	
		No .of respondents	Percentage	No .of respondents	Percentage
		15	46.5	17	53.1
		8	25	24	75
		10	31.3	22	68.8
		8	25	24	75
		11	34.4	21	65.6

Source: primary data

It is observed from the table that out of 200 units 16 percent entrepreneurs have out a financial help form district industry center and rest of the 84 percent entrepreneurs do not have any financial help from district industry center

FINANCIAL ASPECTS OF FOOD BASED SSI UNITS IN MADURAI DISTRICT

An attempt has been made to identify the financial problem experienced by the small scale industry entrepreneurs in food industry. Intensity value tool has been used to evaluate the problem relating to finance.

TABLE -13: PROBLEMS REGARDING FINANCE AS INDICATED BY FOOD BASED SMALL SCALE INDUSTRIES

Sl.No	Problems	Always	Frequently	Sometimes	Infrequently	Never	Intensity Score	Rank
1	Shortage of working capital	43	116	29	12	-	790	I
2	Shortage of fixed capital	28	25	77	67	3	608	IV
3	High rate in interest	14	56	99	31	-	728	II
4	Delay in getting finance	25	76	32	57	10	649	III

Source: Computed data

From the above table (13), it is clear that, **shortage of working capital** is the first major problem and has scored the highest intensity value of 790. **High rate in interest** has secured the second rank with the intensity value of 728. **Delay in getting finance** has occupied the third rank with the intensity value of 649. **Shortage of fixed capital** has got the fourth place with the intensity value of 608.

RELATIONSHIP BETWEEN EXPERIENCE AND FINANCE PROBLEM OF FOOD BASED SMALL SCALE INDUSTRIES

Experiences of the food based small scale industrial units were classified into four categories namely less than 5 years, 5-10 years, above 10 years. An attempt has been made to find out the relationship between experience and finance problem faced by food based small scale industrial units.

A null hypothesis has been framed and ANOVA has been used to test the above relationship.

NULL HYPOTHESIS

There is no significant relationship between experience of the units and finance problem faced by the food based small scale industries.

The data and information pertaining to the Relationship between experience of the units and the finance problem faced by food industry are given in the following table.

TABLE -14: RELATIONSHIP BETWEEN EXPERIENCE AND FINANCE PROBLEM

Sl.No	Finance Problems	Mean score among experience of the units			F Statistics	P Significant
		Less than 5 years	5-10 years	Above 10 years		
1	Shortage of working capital	3.9091	3.7500	4.0549	2.0283	.1343*
2	Shortage of fixed capital	3.1558	3.0313	2.9451	.8550	.4268*
3	High rate in interest	3.1948	3.2500	3.3297	.5895	.5556
4	Delay in getting finance	3.2597	3.2500	3.2308	.0136	.9865

Source: Computed data

Regarding the finance problem and the number of year experience in the food based small scale industry units, the significant difference among shortage of working capital and shortage of fixed capital are identified. Since the respective "P" statistics are significant at 5% level.

RELATIONSHIP BETWEEN NATURE OF ENTERPRISE AND FINANCE PROBLEM

The nature of enterprise of the respondents has been taken into account for the study. An attempt has been taken made to find out whether the finance problem varied in respect of the nature of enterprise of the respondents.

TABLE-15: RELATIONSHIP BETWEEN NATURE OF ENTERPRISE AND FINANCE PROBLEM

S.no	Finance problems	Calculated value(H)	Degrees of freedom	Table value	P	Result 5% significant level
1	Shortage of working capital	5.3610	3	7.815	.8067	Not significant
2	Shortage of fixed capital	2.2987	3	7.815	.9628	Not significant
3	High rate in interest	.2849	3	7.815	.5128	Not significant
4	Delay in getting finance	.9775	3	7.815	.1472	Not significant

Source: Computed data

The researcher tested the null hypothesis that there is no significant difference between nature of enterprise and the finance problem faced by the units using **kruskal Wallis**.

It is observed that, calculated value for Shortage of working capital(5.3610), Shortage of fixed capital(2.2987), High rate in interest(.2849), Delay in getting finance(.9775) at 3 degrees of freedom is not significant, leading to the acceptance of null hypothesis.

FINDINGS

- ❖ With regard to generation of entrepreneurs, it is found that 53.5 percent entrepreneurs belong to the group of first generation.
- ❖ With regard to respondent's activities before taking up entrepreneurship, it is found that 37.5 percent respondents are doing agriculture activity
- ❖ With regard to ownership structure, it is found that 55 percent entrepreneurs enjoy partnership
- ❖ With regard to experience, it is found that 45.5 percent entrepreneurs have more than 10 years of existence
- ❖ With regard to location of the units, it is found that 43 percent entrepreneurs are located their industrial unit in industrial estate
- ❖ With regard to Period working the unit, it is found that 81 percent units work regularly in the study area
- ❖ With regard to registered member of unit, it indicates that 92 percent of the entrepreneurs have registered their unit in **DISTRICT INDUSTRY CENTRE** and remaining 8 percent entrepreneur have not register their unit in district industry centre.
- ❖ With regard to operation challenges faced by small scale industry, it is found that 35 percent entrepreneur have face power shortage is the important challenges while doing their business operation
- ❖ With regard to opportunity gained from food based small scale industry, it is found that 37 percent entrepreneurs have opportunity to known the marketing technique.
- ❖ With regard to environmental pollution, it is found that 58.5 percent units are have complaints about environmental pollution.
- ❖ With regard to **source of initial capital**, it is found that out of the total entrepreneurs 60 percent entrepreneurs have initial capital from agriculture income.
- ❖ With regard to financial help from district industry center, it is observed that out of 200 units 16 percent entrepreneurs have aid a financial help form district industry center.
- ❖ With regard to **finance problem**, it is found that **shortage of working capital** is the first major problem and has scored the highest intensity value of 790. **High rate in interest** has secured the second rank with the intensity value of 728. **Delay in getting finance** has occupied the third rank with the intensity value of 649. **Shortage of fixed capital** has got the fourth place with the intensity value of 608.

SUGGESTIONS

- ❖ Since majority of the small scale industrial units in food industry express the power problem and painfully express that support of financial assistance from 25 percent expected to higher percentage.
- ❖ Since many small scale industrial units express the financial problem specifically delay in getting loans, high rate interest authorities can minimize the time taken for sanctioning for loan and collateral free loan at the required.
- ❖ There is need for extensive education of the small scale industrial units, first generation entrepreneurs in general management and marketing management.
- ❖ The financial agencies should take necessary steps for reducing the rate of interest for loans and advances to the entrepreneurs of SSI sector.
- ❖ It is important that the working capital requirements of the borrower units are reviewed by the banks periodically and if found necessary the limits should be enhanced.
- ❖ It is important that the working capital requirements of the borrower units are reviewed by the banks periodically and if found necessary the limits should be enhanced.

CONCLUSION

The present study is an attempt to evaluate the prospects and finance problems of food based small scale industries. The study highlights the finance problem faced by the small scale industries in the study area. The study is based on primary and secondary data. The findings of the study will enable the Government and policy makers to frame suitable mandates to promote food based small scale industries.

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PROGRESS AND PERFORMANCE OF PRIMARY AGRICULTURE CO-OPERATIVE SOCIETIES IN INDIA

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ABSTRACT

As per 2011 census, about 68.8 per cent of the population resides in rural areas, depending directly or indirectly upon agriculture for their livelihood. There are so many problems in agriculture but agriculture credit is a major problem in rural area. In many developing countries, it has been found that the rural credit market is imperfect in nature. There are substantial variations in the availability of formal credit in rural urban locations (Laha and Kuri, 2011). Primary agriculture co-operative societies are the major part of rural area; they are providing the source of money to the farmer, which will easily available for the cultivation of farm. This paper is evaluating the performance of these agriculture co-operative societies and describing the progress of primary agriculture cooperative societies during the year of 2000-01 to 2011-12 in India.

KEYWORDS

Livelihood, Agriculture, Co-operative credit and Performance.

INTRODUCTION

Agriculture is the mainstay of the Indian economy because of its high share in employment. The contribution of this sector to the gross domestic product (GDP) is however declining very rapidly and is presently about 13.68 percent (in 2011-12) and this sector is also showing deceleration in growth rates. Therefore, it is very important for this sector to achieve higher growth rates and also be an engine of growth, so that growth in other sectors and overall growth rate of the economy can be achieved. Agriculture is a backbone of Indian economy. As per the census, about 68.8 percent of population resides in rural area and depending directly or indirectly upon agriculture for their livelihood. The contribution of this sector to the gross domestic product (GDP) is however declining very rapidly and is presently about 13.68 percent (in 2011-12) and this sector is also showing deceleration in growth rates. Therefore, it is very important for this sector to achieve higher growth rates and also be an engine of growth, so that growth in other sectors and overall growth rate of the economy can be achieved. The primary agricultural credit co-operative societies are considered to be the pillars of the entire cooperative edifice. The PACS continue to be the main source of agricultural credit to the farmers in rural areas (S.S.Kalamkar). The agricultural sector of India has grown up since independence but after green revolution in agriculture got an express speed for its development. Up to mid-sixties, owing to various constraints, not only low value crops were dominating in the cropping pattern but production and productivity of crops were also very low. The situation has totally changed after the introduction of Green Revolution in Indian agriculture, which was introduced during the mid-sixties. Though there are so many problems arise in agriculture after independence. Like water resources was very limited, seed qualities was not good, availability of fertilizer was less than the requirement etc. but after green revolution impression of those main problems was decreasing by plan by plan. Over all in many problems, there was a significant problem of credit for agriculture. More than seventy five percent agriculturist was receiving the credit from money lenders for their agricultural cultivation. The rate of interest was very high and so the people couldn't survive their economic position. Farmer wanted some method for to solve this problem. Reserve bank of India was set up in 1935. RBI started special department for the development and growth of Co-operative credit Societies. Credit is very important to the agriculture. India has only four month rainy season in a year. During that time the credit deliver a significant role for the cultivation of agriculture. In many developing countries, it has been found that the rural credit market is imperfect in nature. There are substantial variations in the availability of formal credit in rural urban locations (Laha and Kuri, 2011). On the basis of farmers' background of economy no one will be ready for to provide the credit. Because there is no surety of repay the loan by the farmer, because the income from agriculture is not guarantee of farmer. In this situation farmer can get the credit from the primary agriculture credit co-operative society. These societies are working for farmer, by the farmer. In 1912, the Co-operative Societies Act was enacted which permitted the registration of non-credit co-operative societies as well. These societies are affiliated by the District Co-operative Central banks. And the district Central co-operative banks are affiliated by the State Co-operative banks. Primary agriculture cooperative credit societies are providing the short and medium term loans for the farming purposes. This paper is evaluating the performance of these agriculture co-operative societies in India.

METHODOLOGY

For to this purpose of paper secondary data have used of bank record and government statements. The reference year have decided of 12 years from 2000-01 to 2011-12. This paper is evaluating the performance of primary agriculture co-operative societies in the term of deposits, demand of money, supply of money and in many other indicators.

RESULTS AND DISCUSSION

Primary agriculture Co-operative credit societies are those credit societies which establish for the welfare of farmer only. These establish by the farmer for the farmer.

MAIN OBJECTIVES OF THE SOCIETIES

1. For the membership of Co-operative credit societies member should be belong to located village of Co-operative societies.
2. The work of co-operative societies should limited to its village only.
3. The liability of Co-operative credit societies be should unlimited.
4. Co-operative credit society is liable for to the deposits and loans in its account.
5. Loan repayment schedule can be deciding by the co-operative society as per the significance purpose of the loans.
6. Primary Co-operative credit societies provide the loan only for medium and short term purpose.

FIGURE 1: NUMBER OF PRIMARY AGRICULTURE CO-OPERATIVE SOCIETIES DURING THE PERIOD OF 2000-01 TO 2011-12

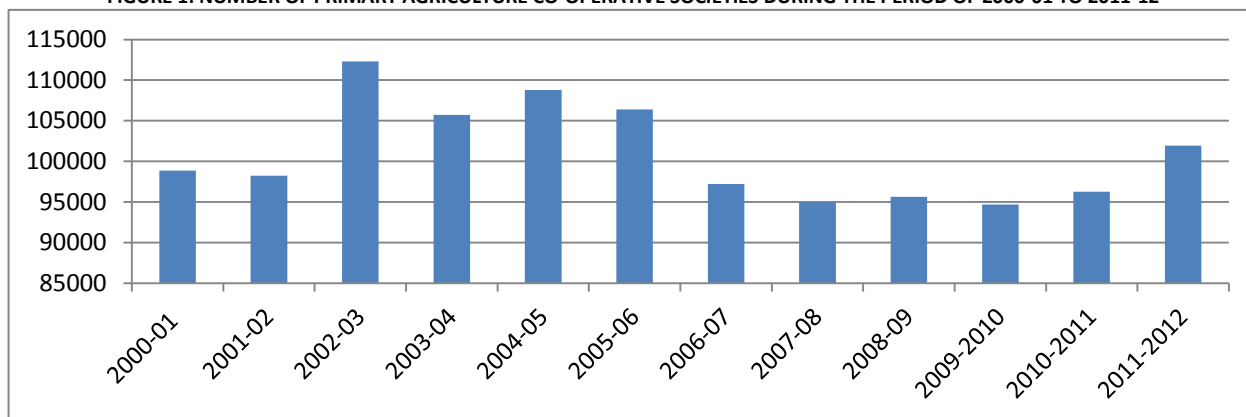
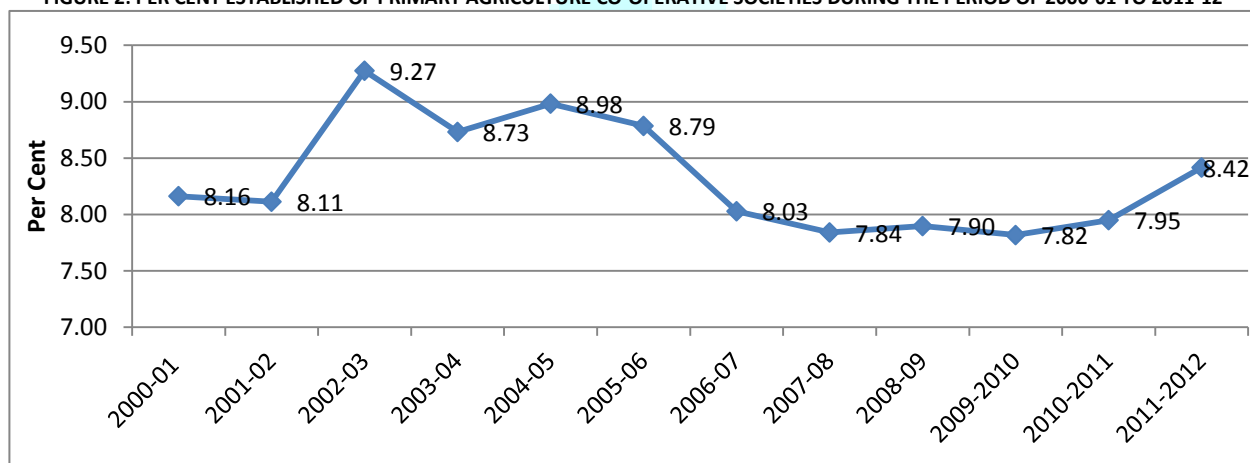


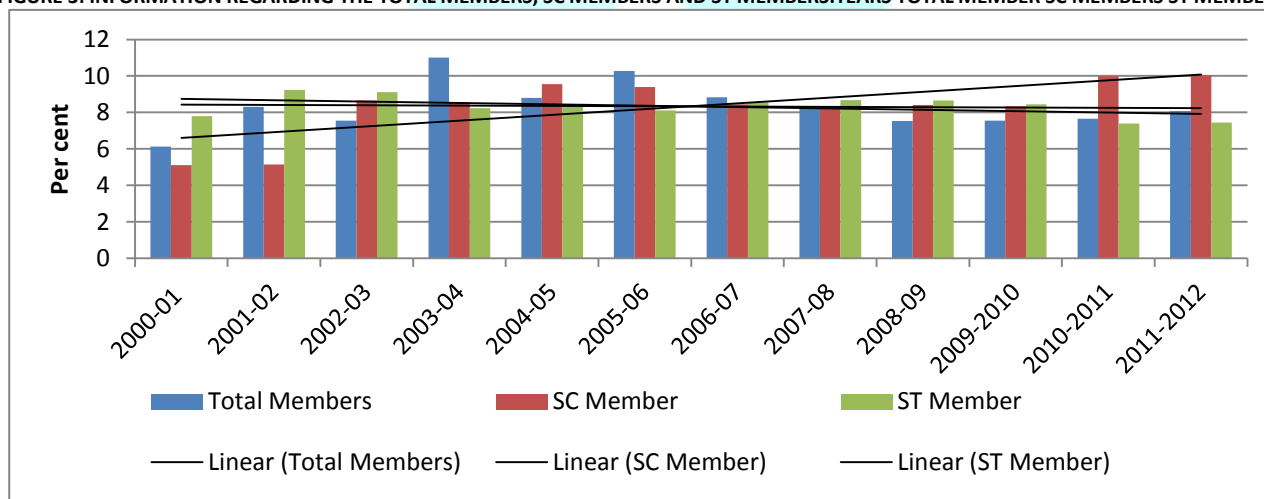
FIGURE 2: PER CENT ESTABLISHED OF PRIMARY AGRICULTURE CO-OPERATIVE SOCIETIES DURING THE PERIOD OF 2000-01 TO 2011-12



Source: National Federation of State Co-operative bank Ltd.

Above Graph are indicating the performance of established PACs in terms of number of credit societies. The 2000-01 year was a little bit good year compare to 2011-12. In 2001-02, 8.16 percent PACs was established which was little higher than the 8.42 percent established number of PACs during the 2011-12. Maximum number of PACs established in 2002-03 with the percentage of 9.27 compare to other years. About the poor year 2007-08 highlighted with the percentage of 7.84.

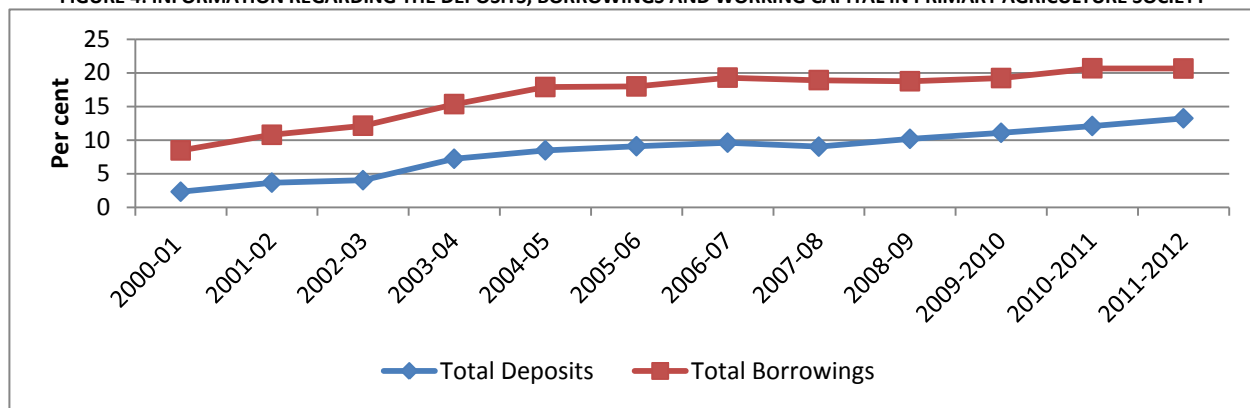
FIGURE 3: INFORMATION REGARDING THE TOTAL MEMBERS, SC MEMBERS AND ST MEMBERS. YEARS TOTAL MEMBER SC MEMBERS ST MEMBERS



Source: National Federation of State Co-operative bank Ltd.

Figure 3 displaying the performance in terms of category wise membership of members in primary agriculture co-operative societies. Total number of members has increased from 6.13 to 8.08 respectively in 2000-01 to 2011-12. Followed by that SC and ST categories member also increased from 5.11 to 10.05 and 7.79 to 7.45 respectively in 2000-01 to 2011-12 years. Maximum number of member has increased in 2003-04 with percentage of 10.98. In SC and ST category in 2002-03 the significant growth found with percentage of 8.56 and 8.23 respectively.

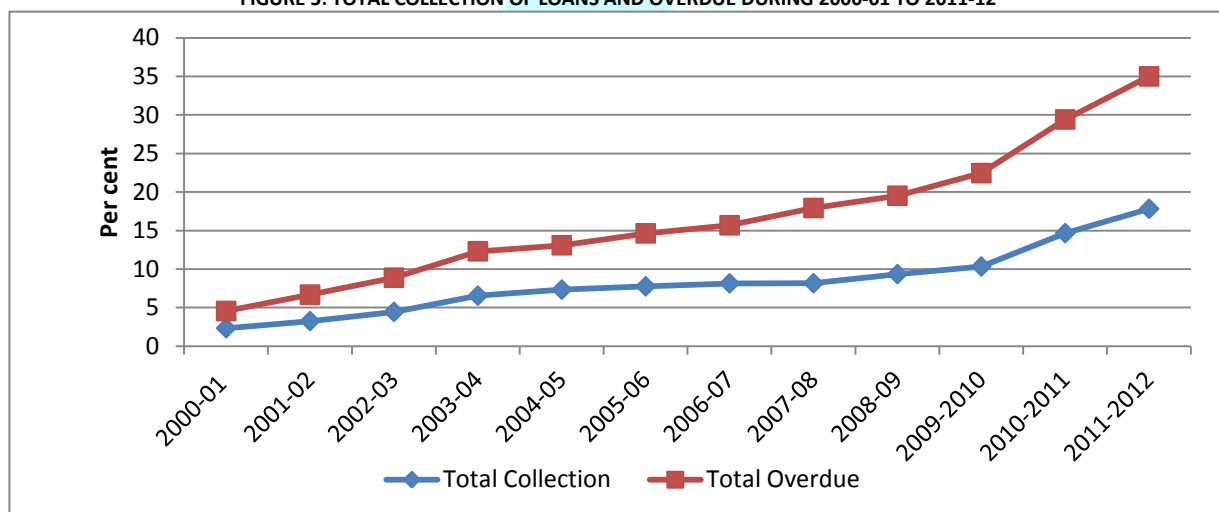
FIGURE 4: INFORMATION REGARDING THE DEPOSITS, BORROWINGS AND WORKING CAPITAL IN PRIMARY AGRICULTURE SOCIETY



Source: Source: National Federation of State Co-operative bank Ltd. (NAFSCOB)

Figure above are Covering the information regarding the deposits, borrowings and working capital of the primary agriculture co-operative societies in India. During the ten year of 2000-01 to 2011-12 total deposits has increased from the 2.32 percent to 13.23 percent. Similarly, total borrowings also increased from 6.14 percent to 13.44 percent. About the working capital there was significant progress found in respective era of 2000-01 to 2011-12 with percent growth from 6.17 to 7.43.

FIGURE 5: TOTAL COLLECTION OF LOANS AND OVERDUE DURING 2000-01 TO 2011-12



Source: Source: National Federation of State Co-operative bank Ltd. (NAFSCOB)

Figure 5 depict the year wise percent share of total collection and total overdue. Total collection was 5.41 percent in 2000-01 which increased till to 17.81 percent in 2011-12. Total collection was greater than the total overdue in 2000-01 with percentage of 2.23 and 17.18 respectively.

FINDINGS & CONCLUSIONS

Agriculture Co-operative Credit societies are working positively. Though there is negative direction found in the establishments in number of societies but the total numbers of members are increased during the twelve years of 2000-01 to 2011-12. There is significant thing found that the SC membership are rapidly increased in that decade. Increasing number of members in Primary Agriculture Co-operative credit societies are indicating, that the farmer are getting awareness about the societies motivate and its benefits and so the farmer are like to take a membership in those societies. So the total numbers of members are increased by 8.13 percent to 10.28 percent during 2001-02 to 2009-10 respectively. Though it is not significant growth but it is showing farmers positive attitude about the PACs. Total borrowing, total deposits and working capital also increased. It is indicating the positiveness of primary agriculture societies in view of farmer's response. Farmer are depositing there money in society and they have a belief in the process of primary agriculture co-operative societies. Though the farmer is repaying their loans but the overdue are increasing. That means even farmer are repaying the loans but not in time or not in before the due date. So the over dues are increasing. It is shown that the primary agriculture co-operative societies are rapidly developing. So these societies are getting popularity in the farmer, so even the number of societies is decreasing but the member in societies are increasing. Overall the performance of primary agriculture co-operative societies has shown not much better but good performance in the scene of progress and development.

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SUSTAINABLE GROWTH: UTILIZATION OF NATURAL RESOURCES

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ABSTRACT

This paper deals with the focus of regional planning on territorial and economic organization of regions. It visualizes improving and conserving natural resources of a region and helps to promote sustainable development of the region. Sustainable development of a region must be achieved through means and ways that do not disturb and exhaust its natural resources. The problems of regional development vary with region in terms of their complexity and degree of intensity. Regional planning focuses on the efficient utilization of natural resources and infrastructure for sustainable growth of the region. The resulting benefits are distributed among regions so that regional disparities are reduced. Regional planning should basically provide the summary of natural resources of a region, based on which plans are devised to conserve and manage the available resources prudently by applying scientific and technical understanding of the resources of the region. By making use of the latest technological application of GIS and RS, a region can be better understood in terms of its environmental standpoint which paves way for sustainable development. The aim of strategy for growth in the 11th five year plan is to achieve a growth process that meets the objectives of inclusiveness and sustainability so that the development process being unleashed has the widest possible spread of benefits.

KEYWORDS

Regional Planning, Sustainable Development, Natural Resources, Management of Natural Resources, Application of RS and GIS.

1. INTRODUCTION

Environment in wider sense is a combination of physical and biological elements that affects the life of an organism. The biotic and abiotic structures of environment live together depending on each other and influencing each other. These two structures have a close dynamic inseparable and organic interrelationship. They have a two way linkage – the matter and energy flow from one structure to another and within each structure. The change in one component causes a change in the other. The physical component of environment comprises land, water, air, mountains, forests, rivers etc., Environment is closely intricately woven network of components and functions. Man is the nucleus of this system and in turn affected by the components of the environment.

2. DISCUSSION**2.1 FUNCTIONS OF ENVIRONMENT**

The major functions of environment are as follows –

1. Supplying renewable and non – renewable resources.
2. Acting like a sink by absorbing solid, liquid and gaseous wastes.
3. Providing life – support services by maintaining ecological balance and genetic diversity. These services help to convert the unused materials and energy into useful materials and energy.
4. Providing natural services such as aesthetic enjoyment and recreation.

2.2 LINK BETWEEN FUNCTIONS OF ENVIRONMENT AND ECONOMY

All the functions of environment are inter – dependent and complementary in nature, influencing each other. Failure of a function causes the other function to be ineffective. These functions decide the operation of the economy. Development of the environment causes social development of human beings. Economy and society perpetuate with the active and healthy functioning of the environment.

2.3 IMPORTANCE OF FUNCTIONS OF ENVIRONMENT

The functions of the environment explain its importance. It acts as the supplier of raw materials to the economy and absorbs the wastes discharged by it. The resources supplied by the environment can be called as environmental goods, also called public goods which can be used by many individuals at the same time without any competition from other individuals. In the recent times, reckless and exploitative behaviour of the economic activity is setting a limit to the efficiency of environment to supply the resources. Its capacity to absorb the wastes is also declining.

2.4 NEED FOR BALANCE

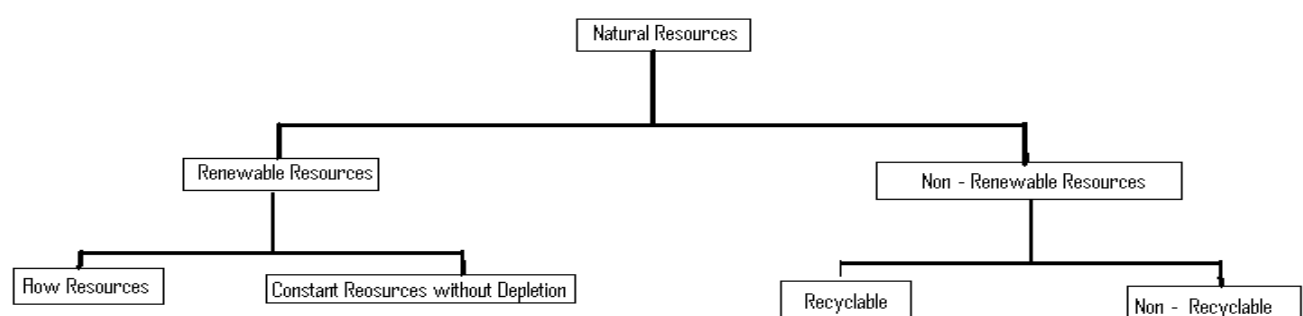
According to the British Economist Kenneth. E. Boulding there should be a balance between inputs and outputs. The inputs received to produce goods and services, must equal the consumption and the discharge of wastes. The entire mass of inputs (raw materials) is equal to the entire mass of outputs (wastes).

2.5 NATURAL RESOURCES

Earth is a reservoir of resources. Resources available in the environment which are useful for living organisms are called Natural Resources. They are available on earth in raw form. They have to be extracted and purified. Water, air, forests, soil, minerals etc are natural resources. The stock of land, minerals etc, are fixed by nature.

2.6 CLASSIFICATION OF NATURAL RESOURCES

Based on their quantity, mutability and reusability, natural resources are classified. The simple classification of natural resources is shown in the following chart.

CHART 1

Natural resources that do not deplete are called renewable resources. They can be used permanently. They regenerate themselves within a short period. The yield of the resource is sustainable if extraction equals growth rate. If renewable resources are consumed faster than their rate of biological growth, the stock depletes. If the consumption continues beyond a limit, the resource becomes unavailable.

The resources that exhaust by use are called non – renewable resources. They cannot be regenerated. All non energy mineral resources that are used in their raw state are non – renewable resources. They can be recycled. The minerals are extracted from mines and we cannot replace them.

2.7. OVER HARVESTING OF NON – RENEWABLE RESOURCES

The basic nature of non – renewable resources points out to the necessity for their conservation. Over harvesting of these resources becomes dangerous to the existence of human beings. We must establish a balance between harvest and renewal so as to preserve them and be able to maintain their quality and quantity.

3. POLLUTION

Economic activities of man lead to the generation of wastes which are discharged into the environment. The wastes or by – products discharged into the environment lead to undesirable changes in it. They are called pollutants which are classified into different ways. Pollution is a dangerous undesirable change in physical, chemical or biological characteristics of environment. Air pollution is caused due to burning of fire wood, industrialization, agriculture, and deforestation. Water pollution is the addition of some substances or factors which degrades the quality of water so it becomes unfit for use. Water pollution is caused due to domestic wastes, industrial effluents, fertilizers and pesticides etc., Other types of pollution are noise pollution, soil pollution, solid waste pollution, and thermal pollution.

4. DEGRADATION

Growing population, high degree of mechanization, an ruthless exploitation of natural resources are degrading our physical environment. Land, soil and forests get degraded. Forests are the conserved. Many economists suggested the mankind to utilize the environment and its components in a judicious way.

5. NEED FOR PROTECTION OF ENVIRONMENT

The world has recognized the facts that effluents reduce affluence. The three factors influencing and deteriorating the quality of environment are population, per capita production, and pollution per unit of economic goods which form the source of vicious circle of environment. The gross effect of this vicious circle is global warming, changing climatic conditions and concentration of green house gases. There is a decline in the agricultural productivity, soil fertility is reduced, per capita availability of clean water and air is declining, ozone layer is depleted, polar ice caps are melting down, rainfall is becoming deficient, aqua life is deteriorating, and the natural color of crops, plants, flowers and birds re changing. Several organizations, and government have been putting their efforts to conserve the quality of our environment.

6. SUSTAINABILITY

The only solution to all the above mentioned problems is sustainability. The world has now recognized that mere growth is not sufficient for enhancing the human well – being. Countries today are progressing towards development which includes economic and non – economic influencing factors. Among non – economic factors, environment and its quality are given vital role. Human beings have realized that a balance between the use of resources and their regeneration sustains the process of development.

The concept of sustainability dates back to the 18th and 19th centuries given by European foresters. They have resorted to sustainable forest development and began to replace the trees cut down by planting trees so that wood is available for future generations.

6.1. COMPONENTS OF SUSTAINABILITY

The three basic components of sustainability are economic, social and environmental components. These three components are inter – dependent. A balance is achieved among these three components. These aspects of sustainable development indicate that: (i) the next generation should inherit both man – made and environmental assets, (ii) the stock of environmental assets to be inherited by the next generation should not be less than the assets inherited by the present generation, and (iii) the inherited stock must consist of man – made, natural and human assets. Thus, social, economic and environmental assets together must be employed in such a way that well – being sustains in future also. This is the philosophy of sustainable development.

6.2. SUSTAINABLE DEVELOPMENT

To ensure sustainable development, economic activities must consider their environmental impacts. Environmental education must be given more importance. The UN has declared the year 2005 – 2015 as the decade of education for sustainable development. Students must be imparted with the art of living associated with environmental sustainability and with practical skills needed to help solve the local environmental issues.

7. CONCLUSION

Sustainable development reminds us that various measures to control pollution have to be adopted some of which are presented below.

1. We should not deplete the Earth of its physical, chemical and biological capital. If we do, we lose our life supporting capital.
2. We must understand that earth is not only for us but also for other living organisms.
3. We must respect the Earth and cooperate with it by respecting all forms of life and also all non living things.
4. We must use our environment in such a way that we do not pass any negative effects to other species.
5. We must recognize that every species has equal right to live as we have.
6. No species should become extinct because of our activities.
7. Do little things based on “think globally and act locally”.
8. Work with others to help sustain and heal the Earth.
9. Enjoy the nature, beauty, friendship and love.

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HEALTH INFRASTRUCTURE IN HARYANA: AN ANALYSIS**ISHU GARG****ASST. PROFESSOR****DEPARTMENT OF ECONOMICS****M. L. N. COLLEGE****YAMUNA NAGAR****ABSTRACT**

Health is very essential ingredient to economic growth in every economy including Haryana. It refers to the state of complete physical, mental, spiritual and social well-being and not merely an absence of disease and infirmity. The status of health depends on the availability of health infrastructure which in turn is a function of health spending in the economy. Therefore, public expenditure on health infrastructure assumes a greater significance all over the world. And the evidences from both developed and developing countries revealed that public expenditure on health infrastructure leads to the sustained economic growth. Keeping in above backdrop the present study makes an analysis of health infrastructure in the State of Haryana. The study confirms that some health infrastructural facilities have grown considerably while some have experienced negative growth over the years. The study also examines the relationship between health infrastructure and economic growth by applying an econometric approach and reveals that health infrastructure leads to economic growth. Therefore, health infrastructure should be undertaken as basic infrastructural activity and public expenditure on it must be increased every year. To attain the target of equity, efficiency and sufficiency in health services in the State, there is logic and rationale for Public Private Partnerships (PPP) in health sector.

KEYWORDS

GSDP, Haryana, Health Infrastructure, Public expenditure.

JEL CLASSIFICATION CODE

I10

I. INTRODUCTION

Health is very essential ingredient to economic growth in every economy including Haryana. It is one of the crucial components of social infrastructure and is a key to the development of human resources. It refers to a state of complete physical, mental, spiritual and social well-being and not merely an absence of disease and infirmity. Health is fundamental to national progress in any sphere. In terms of resources for economic development nothing can be considered of higher importance than the health of the people. It is a measure of their energy and capacity as well as of the potential of man-hours for productive work in relation to the total number of persons maintained by the nation. For the efficiency of industry and agriculture, the health of the workers is an essential consideration (Government of India: First Five Year Plan, 1951).

Out of eight Millennium Development Goals (MDGs) three viz. reducing child mortality, improving maternal health and combating HIV/AIDS & other diseases are directly health related and their attainment requires equity, efficiency and sufficiency in health infrastructure which in turn depends upon the health spending in the economy. Therefore, public expenditure on health infrastructure assumes a greater significance and is universally recognized as a valuable investment helpful in building and maintaining a productive labor force as well as in improving the lives of the people and quality of the society. There are strong evidences from both developed and developing countries that public expenditure on health infrastructure leads to the sustained economic growth. Over the last four decades, a number of studies found a strong and positive relationship between national income and health care expenditure (Kleiman, 1974; Newhouse, 1977, 1987; Leu, 1986; Parkin et al, 1987; Pritchett and Summers, 1996; Filmer and Pritchett, 1999).

Keeping in above backdrop, the study has been organized as follows: Section II is dedicated on the review of concerned literature. Section III describes the data and methodology and Section IV provides an analysis of health infrastructure & discusses the empirical findings and lastly, Section V concludes the study with policy implications.

II. REVIEW OF LITERATURE

There is a large literature on the issues concerned with health infrastructure which has been discussed by economists, researchers and policy makers in both developed as well as developing countries. To justify the need of the present study, following literature has been reviewed:

Goel and Ahlawat (1993) analyzed growth of health expenditure, existing infrastructure for health, medical staff and patients treated in hospitals and dispensaries in Haryana and emphasized investment in health sector for creating health culture in country. They concluded that better health and medical care services for the rural and poor people can be provided through proper health planning.

Raman Kutty (2000) analyzed the development of healthcare facilities in Kerala state. He observed that health sector spending continued to grow even after 1980 when generally the fiscal deficit in the state budget was growing and government was looking for ways to control expenditure. But growth in the number of beds and institutions in the public sector had slowed down by the mid-1980s. He found that the health sector development in Kerala after the mid-1980s had been dominated by the private sector.

Singh (2004) examined the growth and pattern of public expenditure on health and rural health infrastructure and services in Punjab. The study revealed that expenditure on health sector experienced a deceleration in the growth rate, particularly in 1990s after the introduction of National Economic Policy (NEP)-1991. Since 1991, no expansion of health infrastructure was made by the state government both in rural and urban areas, except the establishment of PHSC only to upgrade secondary health care.

Duraisamy and Mahal (2005) examined the determinants of economic growth and health using panel data of 14 major India states for the period 1970/71-2000/01 and found two-way causation between economic growth and health status. Weil (2007) suggested that health's positive effect on GDP is strongest among poor countries. For rich countries, the existing empirical evidence on whether health capital formation stimulates GDP growth is mixed.

Goel and Garg (2011) examined the causal relationship between public expenditure on health and economic growth in Haryana for the period 1991-92 to 2007-08 by using granger causality test and found the existence of uni-directional causal relation between public expenditure on health and economic growth. And the direction of causality was to be found from economic growth to public expenditure on health but the reverse causality was absent.

The above literature shows that the various studies have been conducted to examine the status and performance of health infrastructure and its link with economic growth. Similarly, the present study is a humble attempt to examine the growth of health infrastructure and the relationship between health infrastructure & economic growth for the State of Haryana.

III. DATA & METHODOLOGY

The present study is exclusively based on secondary data which has been collected from the various issues of Statistical Abstract of Haryana and Haryana Economy published by Government of Haryana. The available data have been processed and presented in suitable tables. The growth of health infrastructure is

judged by Linear Growth Rate (LGR). And LGR is computed through Ordinary Least Square (OLS) technique by fitting a linear function to the available data and linear trend equation is defined as

$$Y = b_0 + b_1t + u_t \quad \dots\dots\dots (1)$$

The values of parameters, b_0 and b_1 in equation (1) are estimated by using Ordinary Least Square (OLS) method. The Linear Rate of Growth (LGR) is computed by using following formula:

$$LGR (g\%) = \frac{b_1}{Y} \times 100 \quad \dots\dots\dots (2)$$

In order to examine the relationship between health infrastructure and economic growth, public expenditure on health (PHE) is used as a proxy for health infrastructure and gross state domestic product (GSDP) for economic growth. And this relationship can be analyzed through simple linear regression model of the form as follows

$$GSDP_t = \alpha_0 + \alpha_1 PHE_t + U_t \quad \dots\dots\dots (3)$$

The above model (3) depicts that current year public expenditure on health influences the current year GSDP and it has no time lag. Since, expenditure on health does not yield immediate return to the economy. Therefore, to identify the time lag, through the explanatory power of the independent variable, viz, public expenditure on the health, we should run regression models with varying time lag. Hence the following distributed lag model is used

$$GSDP_t = \alpha_0 + \alpha_1 PHE_{t-k} + U_t \quad \dots\dots\dots (4)$$

Where, $k=1, 2, \dots, 12$

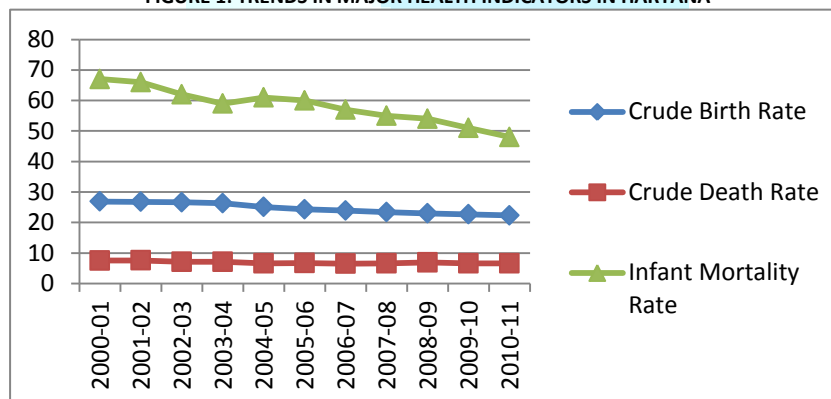
The above model depicts that GSDP of period 't' depends on PHE of period 't-k' where k goes from 1 to 12. In above model GSDP is regressed on each PHE individually through Ordinary Least Square (OLS).

IV. ANALYSIS OF HEALTH INFRASTRUCTURE IN HARYANA

Haryana is geographically a small State which came into existence in 1966 and is one of the significant contributors of national gross domestic product (GDP). Since 1966, State has experienced considerable improvement in social infrastructure including education and health. The State Government is committed to provide quality health care to all its citizens. And its vision is to attain the level of health that will enable every individual to lead a socially and economically productive life.

Due to the sincere efforts of State Government, health facilities are expanding and consequently promoting the health status of people in the State. The life expectancy of male and female has increased to 65.50 and 70.00 years respectively in 2011 while for India as a whole it is 64.6 and 67.7 years for male and female respectively. Birth rate and death rate has improved and stood at 22.3 and 6.6 per thousand respectively in 2010-11 as against 33.34 and 9.21 per thousand respectively in 1966. But these rates for India are estimated to be 21.8 and 7.1 per thousand respectively. Infant mortality rate (IMR) in Haryana is still higher i.e. 48.0 per thousand live births in comparison of India where it is 44.0 per thousand live births. The State has done well in reducing the maternal mortality ratio (MMR) which is 153 per one lakh live births in 2010-11 and for India it is 212 per one lakh live births. Haryana has achieved a Total Fertility Rate (TFR) of 2.3 as against all India average of 2.5 and the State Health Department is taking effective steps to bring it further down to 2.1 to accomplish the goal of population stabilization. In case of effective couple protection rate the State with 41.4 per cent is lagging behind from India with 46.5 per cent 2008. The trends in important health indicators in Haryana is shown in the following figure

FIGURE 1: TRENDS IN MAJOR HEALTH INDICATORS IN HARYANA



Source: Various issues of Statistical Abstract of Haryana & Haryana Economy; Dept. of Welfare, Ministry of Health and Family Welfare

The improvement in health indicators is the result of a remarkable and impressive development that Haryana has made in health infrastructure. In 1968, there were only 785 medical institutions (out of which 656 were rural and 129 were urban) which increased to 3191 (out of which 2899 were rural and 292 were urban) in 2007-08. The total medical staff was only 3312 in 1966 but in 2007-08 it reached to 12978. There were only 8 institutions per one lakh of population in 1968 but in 2007-08, the institutions have increased to 13 per one lakh population. Ayurvedic, unani and homeopathic institutions have increased from 143 in 1966-67 to 517 in 2007-08. Medical personnel in these institutions have also increased from 286 in 1966-67 to 907 in 2007-08.

Such expansion in health facilities could not be possible without State spending. Since 1966 public expenditure on health infrastructure in Haryana has been increasing. It is increased from ₹ 164.49 crores in 1991-92 to ₹ 1812.62 crores in 2007-08. Whereas, development revenue expenditure incurred on health was ₹ 155.92 crores in 1991-92 and rose to ₹ 1078 crores in 2007-08. But its proportion in total development revenue expenditure has declined from 10.39 per cent in 1991-92 to 9.02 per cent in 2007-08. The capital expenditure on health is reached to ₹ 734.28 crores in 2007-08 from ₹ 8.57 crores in 1991-92. And its percentage share in total capital expenditure is also increased from 5.87 per cent in 1991-92 to 19.78 per cent in 2007-08. The linear growth rate (LGR) of important indicators of health infrastructure during 1991-92 to 2007-08 is presented in the following table 1

TABLE 1: LINEAR GROWTH RATE OF HEALTH INFRASTRUCTURE IN HARYANA (IN %)

Indicators↓ / Years→	1991-92 to 2000-01	2001-02 to 2007-08	1991-92 to 2007-08
Hospitals, Dispensaries and Health Centers (HCs)	0.11	1.13	0.40
Medical Staff in Hospitals, Dispensaries and Health Centers (HCs)	0.61	-0.83	0.08
Family Welfare Clinics	0.00	-6.63	-1.58
Medical Institutions/ 1 Lakh Population	-1.83	-1.02	-1.89
Beds/ 1 Lakh Population	-2.20	-4.68	-2.92
Ayurvedic, Unani and Homeopathic Institutions	0.85	1.45	1.23
Medical Staff in Ayurvedic, Unani and Homeopathic Institutions	-1.92	2.82	-0.02
Per Capita Public Expenditure on Health	10.87	5.71	7.56
Development Revenue Expenditure on Health	12.99	9.55	10.04
Capital Expenditure on Health	16.87	24.17	16.30
Public Expenditure on Health	13.82	14.37	11.85

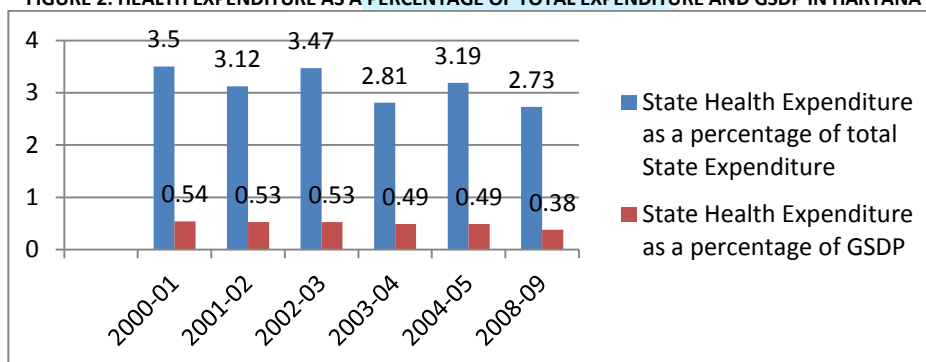
Source: Various issues of Statistical Abstract of Haryana and Author's calculations.

Note: Medical Institutions include Hospitals, Dispensaries and Health Centers

It is cleared from the table 1 that the number of hospitals, dispensaries and health centers have grown over the years. During 2001-02 to 2007-08 their growth rate is found to be more than in comparison of other time periods. The growth rate of medical staff is stood at 0.61 per cent for the period 1991-92 to 2000-01 while it is negative during 2001-02 to 2007-08. Family welfare clinics have not achieved any rise or fall in their number for the period 1991-92 to 2000-01 but have experienced negative growth for other years. The negative growth rates of medical institutions and beds per one lakh population reveals that their numbers have declined over the years in Haryana. Each type of expenditure of State Government on health has grown significantly. Per capita public expenditure as well as development revenue expenditures on health have considerable linear growth rate during 1991-92 to 2000-01. While capital expenditure and public expenditure on health have grown at appreciable LGR i.e. 24.17 per cent and 14.37 per cent respectively during 2001-02 to 2007-08.

The development of health infrastructure depends up to a certain extent on the proportions of the GSDP as well as of total expenditure that a State devotes to its health infrastructure. Haryana's health spending as a proportion of GSDP was just 0.54 per cent in 2000-01 and fell to 0.38 per cent in 2008-09. And a decline is also found in percentage share of State health expenditure in its total expenditure from 3.50 per cent in 2000-01 to 2.73 per cent in 2008-09. Thus, State's health expenditure as a percentage of GSDP as well as of total expenditure seems to be low in comparison of Haryana's overall performance. The trend in health expenditure as a proportion of GSDP as well as total health expenditure for the period 2000-01 to 2008-09 is explored through following figure

FIGURE 2: HEALTH EXPENDITURE AS A PERCENTAGE OF TOTAL EXPENDITURE AND GSDP IN HARYANA



Source: Various issues of RBI Bulletin.

There is ample evidence to throw light on the interdependency between health infrastructure and economic growth. On the one hand, economic growth helps in developing the health infrastructure and thus leads people to live better, longer lives and good health and on the other hand improved health and health care services uplift the economic welfare and growth. To investigate the relationship between health infrastructure and economic growth in Haryana, distributed lag model approach is applied and its results are presented in the following table.

TABLE 2: RESULTS OF LAGGED REGRESSION MODEL

Time Lag (K)	α_0	α_1	$SE\alpha_1$	t-statistic	R^2	Adj. R^2	R	F-value
1	-5961.29	108.27*	4.27	25.37	0.979	0.977	0.989	643.48
2	-6881.38	124.73*	7.62	16.37	0.954	0.950	0.977	268.00
3	-6043.23	138.80*	11.14	12.46	0.928	0.922	0.963	155.14
4	-2601.92	147.03*	10.28	14.31	0.949	0.944	0.974	204.65
5	-742.07	162.40*	14.36	11.31	0.927	0.920	0.963	127.83
6	2821.02	174.95*	19.60	8.93	0.899	0.887	0.948	79.72
7	8011.04	185.47*	24.06	7.71	0.881	0.867	0.939	59.43
8	14945.57	191.47*	21.61	8.86	0.918	0.906	0.958	78.49
9	20547.13	206.24*	27.94	7.38	0.901	0.884	0.949	54.49
10	25396.57	228.34*	40.58	5.63	0.864	0.836	0.929	31.67
11	36472.49	230.77**	52.39	4.41	0.829	0.786	0.911	19.40
12	43466.29	260.17***	90.42	2.88	0.734	0.645	0.857	8.28

Source: Author's calculations.

Note: *Significant at 1% level of significance; **Significant at 2% level of significance; *** Significant at 10% level of significance

The results of lagged regression model are discussed as follows:

- The results of distributed lag model states that regression coefficient (α_1) is relatively smaller in the initial stages and is increasing with the rising time lag. The regression coefficient is statistically significant which implies PHE is important variable affecting the GSDP, in each time lag. The highest value of t-statistic is 25.37, when k=1.

- Standard error is an indicator of the variance of the parameter. The standard error of parameter (α_1) is relatively low i.e. 4.27 when $k = 1$. Therefore, the model having lagged one is the best.
- To measure the 'goodness of fit' of the model, R^2 and adjusted R^2 are used. The highest value of R^2 and adjusted R^2 are 0.979 and 0.977 respectively when $k = 1$. This implies PHE is capable of explaining 98 per cent of variations in GSDP.
- Correlation coefficient (R) is around 0.9 in all the time lags. This implies that in each time lag PHE is significantly related with GSDP. Correlation coefficient is highest 0.989 when the time lag is 1 year. Hence, the degree of co-variation between GSDP and the PHE is the highest when the time lag is 1.
- To judge the overall significance of the model, F-statistic is used. F-statistic is found to be significant in each time lag. This implies PHE is significant explanatory variable in each time lag. The F statistic touches the highest value i.e. 643.48 when the time lag is 1.

The results of this model indicate that PHE is positively related to GSDP, when time lag ranges between 1 to 12 years and the relationship between the two is found to be highly significant when time lag is of one year. It can be concluded that there is a significant relationship between past values of PHE and GSDP. Thus the results of this regression suggest that PHE do lead to economic growth. It can also be seen from the study that public expenditure on health requires one year for making its positive impact on GSDP at the highest level for Haryana during the period under investigation. Therefore, the inference can be drawn from the study that health infrastructure promotes economic growth.

V. CONCLUSION AND POLICY IMPLICATIONS

It can be concluded that Haryana has attained much improvement in health facilities since its inception, but it is not adequate according to the need of growing population in the State. It is found in the study that the public expenditure on health infrastructure has grown over the years despite that the growth of some health infrastructural facilities is negative while some have grown at insignificant rate. However, health expenditure of the State as a proportion of total expenditure as well as GSDP is not enough in comparison of State's overall progress. The study also highlights the presence of positive relationship between health infrastructure and economic growth in Haryana. This implies health infrastructure leads to economic growth. Therefore, health infrastructure should be undertaken as basic infrastructural activity. And State health expenditure in total and as a proportion of total expenditure as well as of GSDP must be increased every year.

There is a strong case to enhance the number of medical institutions and beds as well as medical staff in these institutions to follow World Health Organization (WHO) recommendations regarding health care. To bring equity, efficiency and sufficiency in health services, the Public Private Partnerships (PPP) in health sector is need of the hour. The attainment of population stability urgently requires more number of family welfare clinics in the State. To sustain the contribution of health infrastructure in economic growth there is rationale for good governance in health sector so that financial leakages and wastages can be plugged.

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CHALLENGES AND OPPORTUNITIES FOR RURAL WOMEN ENTREPRENEURS

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ABSTRACT

Since rural women constitute a major segment of Indian population and due to their pivotal role their role in the nation building is significant. Due to lack of education they are less likely to get employment. Further low family income also requires them to go for self-employment i.e. entrepreneurship. This paper addresses challenges faced by women entrepreneurs in rural areas. Besides that the paper also explores the opportunities prevailing for rural women entrepreneurs.

KEYWORDS

Challenges, Opportunities, Rural entrepreneurs Business and family, Finance, Illiteracy, Risk bearing capacity, Visibility, Information and assistance, Training and development, Mobility constraints, Infrastructure, Corruption, Male dominated society, Ministry of Rural Development, Ministry of Micro, Small and Medium Enterprises.

INTRODUCTION

Due to the prevailing political, economical and socio-cultural environment rural women either pushed or pulled for entrepreneurship. As a result they enter in entrepreneurship whereas lots of challenges are waiting for them. Though on the one hand they have challenges over and above rural male entrepreneur as well as urban female entrepreneurs on the other they have so many opportunities to exploit. So they need to judge whether the difference of opportunities and challenges is positive or not to decide for entrepreneurship.

OBJECTIVES OF THE STUDY

The objectives of the study are:

- To explore the challenges for rural women entrepreneurs
- To explore the opportunities for rural women entrepreneurs

METHODOLOGY

The paper attempt to explore the concepts, obviously it's an exploratory research where earlier studies on the subject matter has been readdressed to give insight to phenomenon.

CHALLENGES AND OPPORTUNITIES FOR RURAL ENTREPRENEURS

Kishor and Choudhary (2011) in his study emphasize on the role of women entrepreneurs, as they have been making a significant impact in all segments of the economy in India. However, it is potentially empowering and liberating only if it provides women an opportunity to improve their well-being and enhance their capabilities. On the other hand, if it is driven by distress and is low public support than it may only increase women drudgery. The small and medium enterprises led by women experiencing some major challenges and constraints. Kumari, et. al. (2010) conducted work in the rural areas, the results of the study indicate lack of supportive network, financial and marketing problems were the major problem areas for rural women entrepreneurs and major de-motivator for other women to initiate entrepreneurial activity.

Srinivasan (2009) Microfinance has made great strides during the last decade, the SHG bank linkage programme has continue to make good progress in India but at a slower pace. It is found that poor quality of information about microfinance that is available to people renders their decision making and conservatives.

CHALLENGES FOR RURAL ENTREPRENEURS

The main challenges faced by rural women in business are lack of technical knowledge and skills and to make balance their time between work & family. Some of the challenges faced by rural entrepreneurs are as follows:

Dual role of women overlapping of responsibility of business and family: As the boundaries between the business and the family tend to be indistinct, women operating family businesses face a unique set of issues related to personal identity, role conflict, loyalties, family relationships, and attitudes towards authority. Additionally, family businesses owned by women are at a disadvantage financially and are forced to rely on internal resources of funding rather than outside sources.

Problem of finance: There are several bottlenecks and a gap in availability of credit for women. The multiplicity of schemes is not adequately listed nor is there networking among agencies. As a result, clients approaching one institution are not made aware of the best option for their requirements.

Illiteracy among rural women: The literacy rate of women in India is found at low level compared to male population. The rural women are ignorant of new technology or unskilled. They are often unable to do research & gain the necessary training. The uneducated rural women do not have the knowledge of measurement and basic accounting.

Less risk bearing capacity: Women in India lives secure and protected life in family. Decision making power related to business activities is less due to economic dependent and domination of male headed society.

Lack of visibility as strategic leaders: Changing the perceptions about the likely success of women-owned businesses depends on increasing women's visibility in leadership positions within the greater business community. In an assessment of women's presence as CEOs or Directors of large business enterprises, it has been anticipated that the exodus of women to entrepreneurial growth firms might be because women believe that have greater representation in strategic leadership positions in privately-held or family-owned firms as they provide better opportunities for leadership than available to women in publicly-traded companies.

Lack of information and assistance: Another significant need of many women business owners is obtaining the appropriate assistance and information needed to take the business to the next level of growth. In a study conducted to gather information needs of women entrepreneurs, those who were just starting their ventures, requested assistance and training in implementing the business idea, identifying initial sources of financing, and advertising/promotion. The entrepreneurs, who were already established, had a somewhat different set of needs including financing for expansion and increasing sales. It has been identified that most desired needs of fast growth entrepreneurs may be:

- Optimum use of capital to make operational decisions
- Financing growth
- Increasing the value of the business

- Compensation for self and associates
- Hiring, training and motivating for growth
- Succeeding in a rapidly changing world
- Successful selling
- Sales force management
- Management success
- Scanning of business environment

Need of training and development: Furthermore, in business schools where most of the professional advisers today were trained, the male model of business is still being taught by an overwhelming majority of male professors. Examples of women entrepreneurs have been left out of textbooks, and rarely is a female business owner used as the example or case study. Neither the women nor the men students are learning about the natural abilities and talents women are using to succeed as business owners today.

Unfortunately, without some very strong initiatives on the part of educators, the process will be slow to change.

Male dominated society: The male - female competition is another factor, which develop hurdles to women entrepreneurs in the business management process.

Despite the fact that women entrepreneurs are good in keeping their service prompt and delivery in time, due to lack of organizational skills compared to male entrepreneurs women have to face constraints from competition. The confidence to travel across day and night and even different regions and states are less found in women compared to male entrepreneurs. This shows the low level freedom of expression and freedom of mobility of the women entrepreneurs.

Lack of infrastructure and widespread corruption: These are also the other problems for the rural women entrepreneurs. They have to depend on office staffs and intermediaries to get the things done, especially the marketing and sales side of business. Here is the more probability for business fallacies like the intermediaries take major part of the surplus or professional dependence. Rural women lack training and advisory services on managerial and technical skills to solve production problems. Here more than 70 percent of enterprises are micro- and small enterprises but their growth and the competitiveness is greatly challenged by a lack of business management, marketing and technical skills besides the overall weak infrastructure and complicated legal frameworks for business processes, especially in global online transaction context.

Mobility constraints: Rural women in Indian society have got restricted mobility. The carrier of women is limited in four walls of kitchen. The women confined themselves to three Ks, Kitchen, kids & knitting. There are hardly any opportunities to cross this boundary. The mobility problem has been solved to certain extent by the explosion of Information technology & telecommunication facilities.

OPPORTUNITIES FOR RURAL ENTREPRENEURS

There is generous evidence to suggest that if more women are motivated and are given the necessary encouragement and help for becoming entrepreneurs, they would contribute effectively in running viable commercial enterprises. There are several schemes and plans both by centre and state government at different levels for the encouragement and support to rural women entrepreneurs in India. In 1999-2000, the Government of India launched "Swarna Jayanthi Grama Swarozgar Yojana" programme for promoting poverty alleviation through selfemployment and the organization of poor into Self-Help Groups (SHG). Loans sanctioned under this scheme are treated as medium-term loans. The SHGs have given a new lease of life to the women in villages for their social and economic empowerment. There is national policy for creating an environment through positive economic and social policies for full development of women to enable them to realize their full potential. These policies provide opportunities of equal access to participation and decision making of women in social, political and participation in economic progress of the nation. There are diversified vocational training programmes for women by ministry of labour and employment, they have established regional vocational training institutes for development of entrepreneurial skills Following are the major programs for development of entrepreneurship in India:

- Integrated Rural Development Programme (IRDP): The main objectives of Integrated rural development Programme is to increase the income generating power of family who are below the poverty line to alleviate the poverty. They impart technical & entrepreneurial skills & raise the income level of the poor.
- IRDP (Integrated Rural Development Programme) allied programmes TRYSEM (Training Rural Youth for Self Employment)
- DWCRA (Development of Women and Children in Rural Areas)
- JRY (Jawahar Rozgar Yojna): It is wage Employment programme implemented by Panchayats at Village, Block & District level in the ratio. 70:15:15 etc.
- Support and Training and Employment Programme for Women (STEP)

By Ministry of Rural Development

- Swarnjayanti Gram Swarozgar Yojana (SGSY)
- Sampoorna Grameen Rozgar Yojana (SGRY), including Food Grains Component
- Assistance for Rural Employment Guarantee Schemes
- National Social Assistance Programme (NSAP)
- National Rural Employment Guarantee Act (NREGA)
- National Food for Work Programme (NFWP)
- National Common Minimum Programme (NCMP)

By Ministry of Micro, Small and Medium Enterprises

- Credit Support Programme
- Rajiv Gandhi Udyami Mitra Yojana
- Prime Minister's Employment Generation Programme
- Workshed Scheme for Khadi Artisans

CONCLUSION

- Rural women entrepreneurs face lots of challenges like business and family conflict, financial crisis, illiteracy, low risk bearing capacity, lack of visibility and leadership, lack of information and assistance, lack of training and development, mobility constraints, lack of infrastructure, high level of corruption, male dominated society etc. which makes their work very difficult and discouraging.
- So many support schemes has been implemented by the agencies of the Ministry of Rural Development and Ministry of Micro, Small and Medium Enterprises.

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A STUDY ON PERFORMANCE OF STATE CONSUMER DISPUTES REDRESSAL COMMISSIONS IN INDIA

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ABSTRACT

This paper attempts to study working and performance of 34 State Consumer Disputes Redressal Commissions working in 34 States and Union Territories of India. Analysis of Data makes it crystal clear that State Consumer Disputes Redressal Commissions are far behind in disposal of cases if we compare their performance with District Consumer Disputes Redressal Forums and National Consumer Disputes Redressal Commission. There is still need of agencies working at state level to dispose of the pending cases as early as possible by creating additional and circuit benches and by introducing evening shifts to ensure timely justice to consumers.

KEYWORDS

SCDRC, consumer protection.

INTRODUCTION

Government of India enacted number of laws for protection of aggrieved consumers but, Consumer Protection Act, 1986 was one of the landmark Law which facilitated setting up Consumer Disputes Redressal Agencies at District, State and National level for providing simple, speedy and inexpensive redressal to aggrieved consumers and accordingly 34 State Consumer Disputes Redressal Commissions were set up by respective states and U.T. Governments.

OBJECTIVES OF STUDY

It attempts to elaborate the state of affair of the cases filed/disposed of at the 34 State Consumer Disputes Redressal Commissions working in 34 state/union territories. It further compares their performance with various consumer dispute Redressal agencies working at District, national level in India. The study points out various problems being faced by these State Consumer Disputes Redressal Commissions and suggest their possible solutions.

TYPE OF RESEARCH

The present study is descriptive cum exploratory in nature.

RESULTS AND DISCUSSION

The following table depicts the cases filed/disposed of in the SCDRC of different States/U.T.'s:

TABLE 1.1: STATEMENT OF CASES FILED/DISPOSED OF IN STATE CONSUMER DISPUTES REDRESSAL COMMISSIONS OF DIFFERENT STATES/U.T.

Sl. No.	Name of State	Cases filed since inception	Cases disposed of since inception	Disposal (%)	As On
1	Andhra Pradesh	28675	27469	95.79	31.12.12
2	A & N Islands	42	38	90.48	31.01.08
3	Arunachal Pradesh	63	61	96.83	30.11.12
4	Assam	2577	1867	72.45	31.12.12
5	Bihar	15333	10770	70.24	30.09.12
6	Chandigarh	12204	12035	98.62	31.12.12
7	Chattisgarh	8612	8016	93.08	31.01.13
8	Daman & Diu and DNH	25	20	80.00	31.03.11
9	Delhi	34653	32857	94.82	31.01.13
10	Goa	2321	2252	97.03	31.03.11
11	Gujarat	44989	36905	82.03	31.01.13
12	Haryana	42841	42718	99.71	31.01.13
13	Himachal Pradesh	7871	7629	96.93	31.01.13
14	Jammu & Kashmir	6652	6061	91.12	31.12.12
15	Jharkhand	5101	4601	90.20	31.12.12
16	Karnataka	44505	39485	88.72	31.01.13
17	Kerala	25502	24307	95.31	31.12.12
18	Lakshadweep	17	16	94.12	31.12.12
19	Madhya Pradesh	41886	36958	88.23	31.01.13
20	Maharashtra	57109	41344	72.39	30.06.12
21	Manipur	139	96	69.06	30.09.08
22	Meghalaya	262	175	66.79	31.10.12
23	Mizoram	200	196	98.00	31.01.13
24	Nagaland	25	6	24.00	31.12.11
25	Odisha	21883	15667	71.59	31.12.12
26	Puducherry	959	944	98.44	31.12.12
27	Punjab	29596	23575	79.66	31.12.12
28	Rajasthan	51308	46999	91.60	31.12.12
29	Sikkim	42	41	97.62	31.12.12
30	Tamil Nadu	24223	22125	91.34	31.12.12
31	Tripura	1421	1397	98.31	31.01.13
32	Uttar Pradesh	67119	38625	57.55	31.12.12
33	Uttarakhand	4641	3856	83.09	31.12.12
34	West Bengal	17301	15723	90.88	31.12.12
	TOTAL	600097	504834	84.13	
	National Commission	80014	69253	86.55	28.02.13
	District Forums	3242324	2994256	92.35	

Source: Unpublished records of National Consumer Disputes Redressal Commission, New Delhi (2013)

1. The study examined the Statement of Cases Filed / Disposed of in State Consumer Disputes Redressal Commissions in the different States / U.T. of India as depicted in Table 1.1. Analysis of Table 1.1 reveals that 600097 cases have been filed out of which 504834 cases (84.13%) has been disposed of.
2. The overall disposal rate of 84.13 percent reflects that disposal rate of the cases at State Commissions are not very satisfactory. It is further observed that Haryana stood first with 99.71 percent disposal rate of the cases. Chandigarh (98.62%) and Puducherry (98.44%) stood at second and third position respectively on the basis of disposal percentage of the cases.
3. The State Consumer Disputes Redressal Commission in the State of Nagaland (24%) were having lowest disposal percentage. It is followed by Uttar Pradesh (57.55%).
4. Out of total 34 State Commissions in 34 States / U.T.'s, State Commissions of 22 State / U.T. (64.70%) have disposal rate higher than the overall disposal rate of 84.13 percent.
5. Out of total 34 State Commissions in 34 States / U.T.'s, State Commissions of 12 State / U.T. (35.30%) have disposal rate lower than the overall disposal rate of 84.13 percent.
6. As per statistics released by National Consumer Disputes Redressal Commission on its official website on March 06, 2013 3 post of president and 20 posts of members were vacant in different State Consumer Disputes Redressal Commissions so, concerned State/U.T. Governments should take necessary steps to solve this problem.
7. The study observed that the overall disposal rate of District Consumer Disputes Redressal Forums in India (95.35%) is much better as compared to the U.T./State Commissions (84.13%) as well as the National Consumer Disputes Redressal Commission (86.55%) so, State Commissions must take necessary steps to increase disposal percentage.

CONCLUSION

Consumer Disputes Redressal agencies are playing a very important role to protect the interest of consumers by providing justice to the affected consumers. Large number of State Consumer Disputes Redressal Commissions are facing problem of vacant post of president and/or members which is a serious issue. For example as per statistics released by National Consumer Disputes Redressal Commission on its official website on March 06, 2013 3 post of president and 20 posts of members were vacant in different State Commissions of India and concerned State/U.T. Governments should take necessary steps to solve this problem. Analysis of Data makes it crystal clear that State Consumer Disputes Redressal Commissions are far behind in disposal of cases if we compare their performance with District Consumer Disputes Redressal Forums and National Consumer Disputes Redressal Commission. There is still need of agencies working at state level to dispose of the pending cases as early as possible by creating additional and circuit benches and by introducing evening shifts to ensure timely justice to consumers.

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STUDY OF SENSITIVITY TOWARDS IMPORTANCE OF GEOGRAPHICAL INDICATION REGISTRY IN UTTARAKHAND

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ABSTRACT

From ancient times, every region of the world has got claim to fame for some of its specific products, for example Egypt for cotton and India for spices. The Geographical indications are understood by consumers to denote the origin and the quality of products. These products command a price premium in the market. In due course of time many of them have acquired valuable reputation and in the absence of adequate protection, the dishonest commercial operators have started misrepresenting the products. Falsely using geographical names (for example, Bhagalpuri Bedsheets) unauthorized parties make customers to shell out more money for the fake products and Legitimate producers are deprived of valuable business, damaging the established reputation of original product / produce in turn. The rich culture of Uttarakhand, with the presence of various distinct crafts and produce but absence of any, in the list of Geographical Indication Registry gave inspiration for this paper in May'2013, which aims at giving a fair idea of the understanding of the local people / artisans / producers in this particular matter. The study also throws light on the process of GI registration and using it to the benefit of the proprietors and authorized users in today's competitive world.

KEYWORDS

Intellectual Property, Geographical Indication, Branding.

INTRODUCTION

Economic Times in one of its article in June 2013 quoted, "Popular European wine brands are making a beeline for geographical indication (GI) registration in India. This comes at a time when the country is considering a steep cut in the import duty on wines and spirits currently pegged at 150% as it negotiates a free trade agreement with the European Union. Thanks to wine regions of Europe, foreign products now outnumber Indian ones in requests for GI registration in India. Of the 227 applications pending registration before the GI Registry office, 125 are from European Union, mostly wine and spirit brands".

This clearly indicates how actively others are keen to capitalise on the opportunity that Geographical Indication Registry provides, however the situation in India is not favourable as per the GI office according to which, as on March 31, 2013, there were only 184 Indian products registered in GI registry, while there were nine foreign brands such as Champagne and Cognac from France, Porto and Duoro wines from Portugal, Scotch Whisky from the UK and Tequila from Mexico making the total to 193.

It is worth mentioning the basmati identity crisis faced by India in 1997, when on September 02, 1997, an American company RiceTec Inc, was granted a patent (No.5663484) by the US patent office to call the aromatic rice grown outside India 'Basmati'. Though India was able to win the case later with the active help of International NGO, Centre for food safety and an Indian one called Research foundation for science, technology and ecology. Reaction to this case was clearly visible in one of the statement of Economic Times which read, "Patenting Basmati in the US is like snatching away our history and culture."

Later many activists felt, giving Geographical Indication Protection to such Indian products could, save their identity crisis and the support the related producers. A geographical indication is a sign used on goods that have a specific geographical origin and possess qualities, reputation or characteristics that are essentially attributable to that place of origin. Generally, a geographical indication includes the name of the place of origin of the goods. Agricultural products typically have qualities that are derived from the specific place of production and are influenced by the distinct local factors, such as climate and soil.

Geographical indications may be used for a wide variety of products, whether natural, agricultural or manufactured. Thus Geographical Indications are the characteristics of nature and mother earth embedded in the product of a specific region. It's about a culture, heritage, tradition and people. In India the Geographical Indications of Goods (Registration and Protection) Act 1999, came into force from September 2003.

NEED FOR THE STUDY

This study was conducted to understand the level of understanding of the locals of Uttarakhand with respect to Geographical Indication Registry and its importance. This study will help the local artisans, craftsman's, producers, NGOs and local authorities to identify the various products / produces that can be registered. It will further help them in harvesting the benefits of GI registration in a proper manner which in turn will impact the livelihood and sustainability of such products and crafts.

OBJECTIVES

- To study the awareness level towards Geographical Indication Registry.
- To analyze the respondent's knowledge of importance and effects of Geographical Indication Registry.
- To identify various products that can be probably registered in Geographical Registry
- To indicate the benefits of Geographical Indication Registry
- To provide a fair idea of registering a product in Geographical Indication Registry.
- To suggest the measures to utilize the Geographical Indication Registry in strengthening the image of the product / produce.

REVIEW OF LITERATURE

World Intellectual Property Right Organisation (2013), defines that, A geographical indication (GI) is a sign used on goods that have a specific geographical origin and possess qualities, reputation or characteristics that are essentially attributable to that origin. An appellation of origin (AO) is a special kind of GI. It also lists that GIs are protected in accordance with international treaties and national laws under a wide range of concepts, including laws specifically for the protection of GIs or AOs, trademark laws in the form of collective marks or certification marks, laws against unfair competition, consumer protection laws, or specific laws or decrees that recognize individual GIs.

Indian Geographical Indications Journal (2013), states the benefits of GI Registry as "It confers legal protection to Geographical Indications in India, It prevents unauthorized use of a registered GI by others, It enables seeking legal protection in other WTO member countries".

Escudero, S. (2001) says, a geographical indication may also highlight specific characteristics of a given product due to factors other than the geographical such as human factors. This is the case of expressions such as "Swiss made" for distinguishing the origin of famous watches or chocolates. He further states that, geographical indications are subject to the same general principles applicable to all other categories of intellectual property rights included in the Agreement,

mainly the *minimum* standards, the national treatment and the MFN clause. According to the WTO summary of responses, Members usually provide protection to geographical indications by means of (i) laws focusing on business practices, (ii) trademark law; and (iii) special or *sui generis* protections.

However **Shivani Singhal (2010)** believes, "While GIs may be the best tool among the existing IP rights instruments for the protection of Traditional Knowledge (TK), they are inadequate in many ways. First, the definition and nature of GIs itself excludes certain categories of TK from its purview. Secondly, even when it is possible to obtain a GI, the level of protection rarely measures up to the expectations of TK holders. For instance, GIs cannot guard against offensive use of TK, nor can they prevent the knowledge from entering the public domain. Therefore, instead of pigeon-holing TK into one of the existing systems for protection of IP, an attempt must be made to formulate a *sui generis* model that will address concerns which are specific to protection of TK."

Blakeney, M. (2001), argues that the access by biotechnology companies to the genetic resources of developing countries is a modern feature of biotechnological patenting. The role which a geographical indications law might play is illustrated by the recent dispute between the Indian Basmati rice marketing authorities and a US corporation which had developed a strain of rice from Basmati genetic material. The US corporation sought to market this rice, under the brands: Texmati, Kasmati and Jasmati. Had a geographical indications regime been in place in the countries in which protection for these brands was sought, the resolution of this dispute would have been simpler.

RESEARCH METHODOLOGY

The study is based on both primary and secondary data. Various secondary sources were referred to gain insights into the Geographical Indication Registry, status of Uttarakhand and process of Registration in India. The Geographical Indication registry office in Chennai was also visited, to gain meaningful insights w.r.t Uttarakhand in this regard. The specific information regarding the sensitivity towards the Geographical Indication Registry was collected through the following sources.

PRIMARY DATA

A non-probability, convenience cum judgmental sampling technique was used to administer the questionnaire. It was kept in mind that the same is administered to the people who are engaged in either manufacturing Handicrafts or related items, else engaged farming and related activities (considering the varieties of crops, medicines and fruits grown there). A structured questionnaire was prepared in two parts by the researcher, part 'A' and part 'B'. The part B was administered to the same respondent who had answered the part 'A', only after explaining him properly about the concept of Geographical Indication Registry (It as a small one to one session of approx 10 minutes). Thus part A was to identify awareness level about Geographical Indication, and part 'B', to identify possible products / produce which can be put forward for Geographical Indication Registry, which at the same time indicated the acceptance level of importance of GI. The questionnaire was administered in local (Hindi) language.

SAMPLE AND SAMPLE SIZE

Initially sample data was collected from the Nainital Region of Uttarakhand through 100 respondents. However for getting the meaningful and reliable insights the respondents who were actually able to attempt all questions, except one open-ended question of part B (82) were evaluated.

TOOLS AND TECHNIQUES

The data collected through questionnaire were tabulated and analyzed by using excel worksheet.

BENEFITS OF GEOGRAPHICAL INDICATION REGISTRY

Under Articles 1 (2) and 10 of the Paris Convention for the Protection of Industrial Property, geographical indications are covered as an element of IPRs. They are also covered under Articles 22 to 24 of the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement, which was part of the Agreements concluding the Uruguay Round of GATT negotiations.

According to Section 7 of The GI Act 1999, in India the Geographical Indication (GI) Register as two parts. While Part A contains the particulars relating to registration of the GI, part B contain particulars relating to the registration of the authorized users to be entered in accordance with Section 17 of GI Act and Rule 56 of GI Rules 2002.

In addition to the Branding and ease in access to the wide market, valid GI Registry gives the registered proprietor and the *authorized user* (Any person claiming to the producer of the goods with respect to a particular may apply in writing to the registrar of GI at Chennai in the prescribed format with the requisite fee), the exclusive right to the use of the geographical indication in relation to the goods & to obtain relief in respect of infringement of the geographical indication in the manner provided by the act. Further the authorized users can exercise the exclusive right to use the Geographical Indication.

Thus a person or a company will be treated as falsifying and falsely applying GI, if he uses the name, produces, weaves in, impresses, works in, annexes or affixes to the goods or to any package or a thing, without the consent of the authorized users of the geographical indication.

Any person falsifying is liable for imprisonment of minimum 6 months to 3 years with a fine of Rs.50000 to Rs.3 Lkhs.

If a company commits an offence under this act, the company and every person in charge of, and responsible to may be deemed as guilty and are liable to be punished accordingly.

In Simple Terms It confers legal protection to Geographical Indications in India, prevents unauthorized use of a Registered Geographical Indication by others, and indirectly promotes economic prosperity of producers of goods produced in a geographical territory.

Specifically a registered Geographical Indication is said to be infringed when:

- An unauthorized use indicates or suggests that goods have originated in a geographical area other than their true place of origin and it misleads the customers as to their geographical origins.
- Use of Geographical Indication results in unfair competition including passing off in respect of registered Geographical Indication.
- Use of another Geographical Indication results in a false representation to the public that goods originate in a territory in respect of which a Geographical Indication relates

PROCEDURE OF GI REGISTRATION

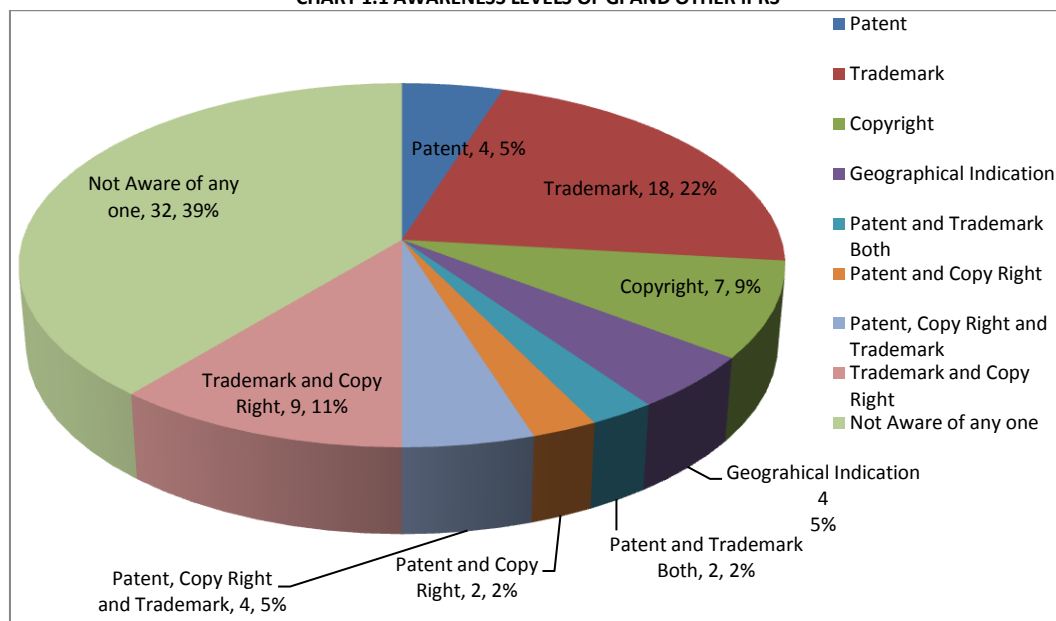
A typewritten application in Hindi or English, in the prescribed format (GI-1A to ID) with a fee Rs.5000 for a single class [as per Section 11(1), rule 23(2)] (Fee for multiple classes vary) can be directly sent to the Registrar of GI Registry, Intellectual Property Office Building, Industrial Estate, G.S.T Road, Guindy, Chennai - 600032.

It is to be noted that a single individual cannot apply for the Geographical Registration, until it represents the interest of the producers however any association of persons, producers, organization or authority established by or under the law can apply.

Validity: Under Geographical Indications of Goods (Registration and Protection) Act, 1999 the Geographical Registry is valid for 10 years while Registration as well as Authorization of usage had to be renewed every 10 years.

DATA ANALYSIS AND INTERPRETATION

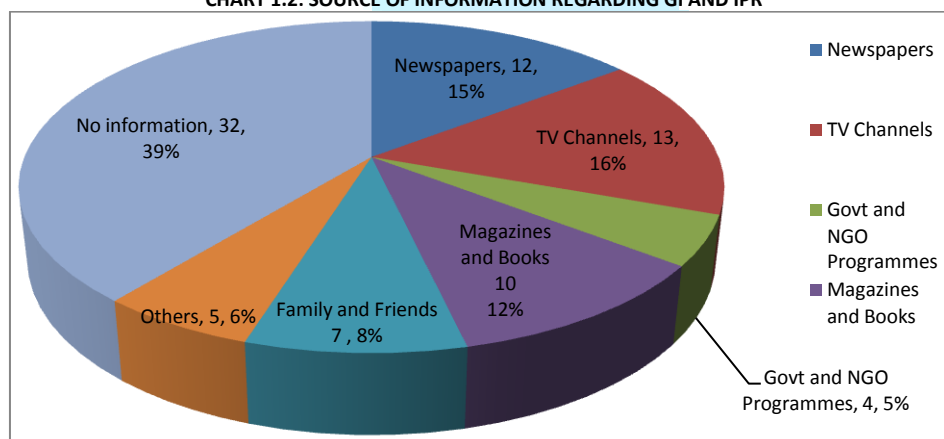
CHART 1.1 AWARENESS LEVELS OF GI AND OTHER IPRS



Source: Primary Data

The Data Analysis showed that only 5% of the respondents were aware of Geographical Indication Registry, while 39% were not aware of any basic Intellectual Property Rights. At the same time Trademarks had highest recall where 22% respondents were aware of it, and 11% of the respondents were aware of the Trademarks as well as Copyright. 7% were aware of Copyright, while only 5% respondents were aware of Patents. This clearly indicates that majority of people are unaware of Geographical Indication.

CHART 1.2: SOURCE OF INFORMATION REGARDING GI AND IPR



Source: Primary Data

Maximum number of respondents got the information regarding the IPRs through Television and Newspapers, 16% and 15% respectively, while 39% as already indicated had no information. Magazines also served as a source of information, 12% of respondents got awareness through magazines. Family and Friends were a source for 8% respondents and 6% respondents got information through other resources. Government and NGOs contributed as a knowledgebase for 5% respondents in this regard.

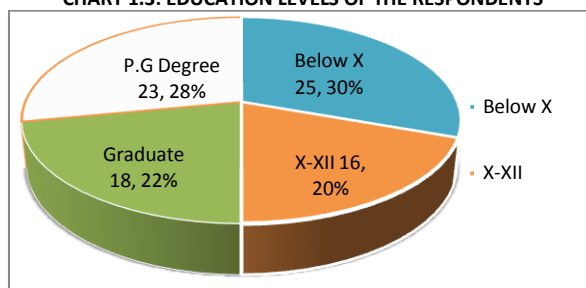
TABLE 1.1: OCCUPATION VIS-À-VIS AWARENESS LEVEL OF GI & IPR

Awareness Level of GI and other IPRS	Woodwork	Textile Related	Waxwork	Farming	Floriculture	Others	Total	% Awareness
Patent	0	0	0	2	2	0	4	5%
Trademark	2	5	0	5	4	2	18	22%
Copyright	0	0	0	2	4	1	7	9%
Geographical Indication	0	0	1	1	0	2	4	5%
Patent and Trademark	0	0	0	2	0	0	2	2%
Patent and Copy Right	0	0	0	2	0	0	2	2%
Patent, Copy Right and Trademark	0	0	0	2	2	0	4	5%
Trademark and Copy Right	0	1	1	4	2	1	9	11%
Not Aware of any one	13	7	0	6	5	1	32	39%
Total	15	13	2	26	19	7	82	100%
% of Respondents	18%	16%	2%	32%	23%	9%	100%	

Source: Primary Data

Farming was the occupation of most of the respondents i.e. 32%, followed by Floriculture 23%. 18% of the respondents had woodwork as occupation, 18% respondents were engaged in textile related works, 2% of respondents were engaged in waxwork while 9% were engaged in other works. Farmers were the ones who were aware of Geographical Indication, Patent, Trademark, and Copyright. It is to be noted here that people engaged in woodwork were the one who were not aware of the IPRs with 13.33% of them having awareness about only trademarks and rest being not aware of any. Even 54% of people engaged in textiles related works were not aware of any of these.

CHART 1.3: EDUCATION LEVELS OF THE RESPONDENTS



Source: Primary Data

Maximum (30%) number of respondents were have education below matriculation, followed by 28% of Postgraduate respondents. 22% respondents were graduates and 20% of the respondents were educated between X- XII.

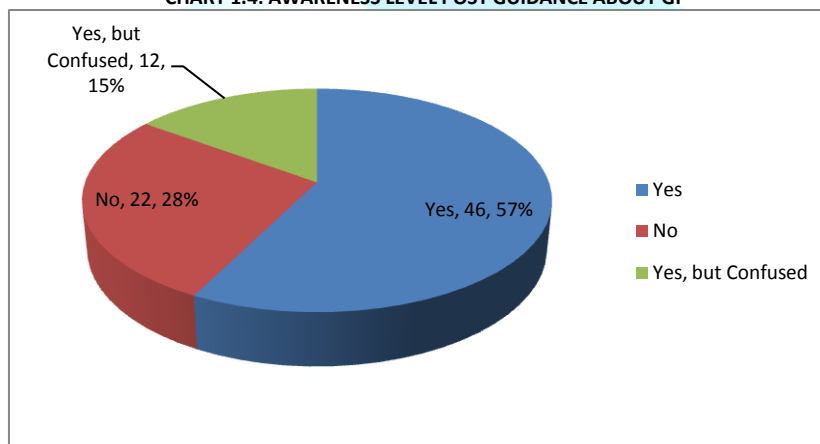
TABLE 1.2: AWARENESS LEVEL OF GI AND IPR VIS-À-VIS EDUCATION LEVEL

Awareness Level of GI and other IPRs	Below X	X-XII	Graduate	Postgraduate	Total	% Awareness
Patent	0	1	1	2	4	5%
Trademark	4	5	4	5	18	22%
Copyright	0	1	3	3	7	9%
Geographical Indication	0	0	2	2	4	5%
Patent and Trademark Both	0	0	0	2	2	2%
Patent and Copy Right	0	0	0	2	2	2%
Patent, Copy Right and Trademark	0	0	2	2	4	5%
Trademark and Copy Right	0	3	3	3	9	11%
Not Aware of any one	21	6	3	2	32	39%
Total	25	16	18	23	82	100%
% of Respondents	30%	20%	22%	28%	100%	

Source: Primary Data

The comparison table of awareness level towards various IPRs and Education Level indicated that education had a positive impact on the awareness level. 66% of the total respondents who did not had any knowledge about the IPRs were educated below matriculations. Out of all matriculates 84% were not having any awareness about the IPRs. Maximum no of people irrespective of the education level had awareness for trademarks.

CHART 1.4: AWARENESS LEVEL POST GUIDANCE ABOUT GI



Source: Primary Data

After the respondent was given a brief about the Geographical Indication Registry by the researcher, there was a considerable increase in the understanding of respondents in this regard. Data indicated that, post the guidance 57% of the respondents became aware of Geographical Indications, 15 % got an understanding however still they had some confusion, while 28% still could not understand the concept.

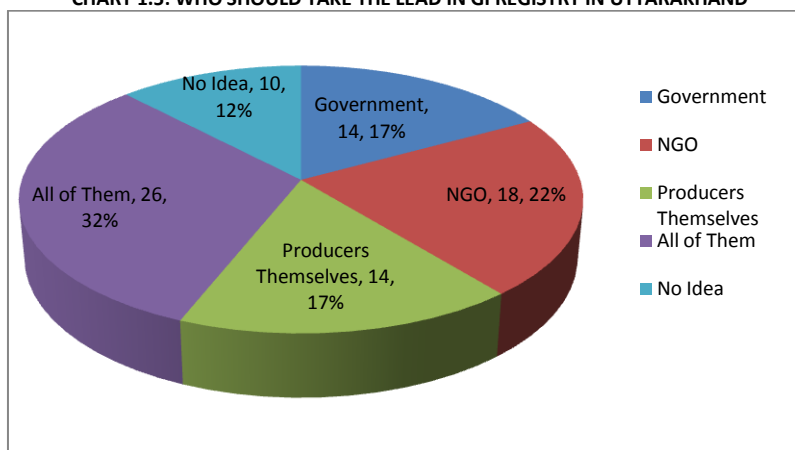
TABLE 1.3: IMPORTANCE PERCEIVED POST GUIDANCE VIS-À-VIS EDUCATION LEVEL

Importance of Gi Perceived	Important	Not Important	Cannot Say	Total
Below X	15	5	5	25
X-XII	9	2	4	16
Graduate	16	0	2	18
Postgraduate	15	2	6	23
Total	55	9	17	82
% of Respondents	67%	11%	21%	100%

Source: Primary Data

Once explained about the Geographical Indications, 67% of the Respondents believed GI registry was important to support the craft, products / produce of Uttarakhand, while still 21% didn't had any idea and 11% said Geographical Indication is not going to make any difference hence is not important. It is to be noted here that irrespective of the education level, respondents were able to perceive the benefits of the importance of GI clearly once they were given a brief about the Geographical Indication Registry. 89% of Graduates, 65% of Postgraduates, and 60% of Matriculates, 56% of X-XII, were of the opinion that GI is important.

CHART 1.5: WHO SHOULD TAKE THE LEAD IN GI REGISTRY IN UTTARAKHAND



Source: Primary Data

32% of the respondents believed that it needs to have a coordinated effort of all the stakeholders in identifying and providing GI security and promotion to the products. 22% respondents had an opinion that NGOs can play an important role in this regard by educating and helping people. 17% each had an idea that Producers and Government respectively need to take a lead in this regard. 12% people still did not have any idea in this regard.

TABLE 1.4: PRODUCTS SUGGESTED BY RESPONDENTS FOR GEOGRAPHICAL INDICATION

Proposed Products for GI	No of Respondents	% of Respondents	Brief Description
Kumaoni Picchora	12	15%	A Heavy Dupataa kind cotton cloth piece dyed in natural yellow colour with red coloured round block prints on embelished with laces. Used on Auspicious events and Functions
Kumaoni Nath	6	7%	Big Nose Ring with specific designs on it
Garhwali Nathuli	4	5%	Big Nose Ring with specific designs on it
Gulobandh	4	5%	Necklace made with Gold Plating with a base of cotton pad
Baalmitahhi of Almora (Sweet)	12	15%	Sweet prepared with milk solids in Almora, with poppy seeds coated with sugar on outside
Singauri of Almora (Sweet)	8	10%	Sweet prepared in Almora with milk and is wrapped in Leaf of a Plant know as 'Mau' in local language
Munsyari Ki Rajma	9	11%	Rajma Dal with specific colour, shape, sine and specifically taste grown particularly in Munsyari region of Kumaon
Lohaghat Ki Moongfali	6	7%	Groundnut grown in Lohaghat Region with very long pods and distinct colour in addition to taste
Kotabagh Ki Moogfali	5	6%	Groundnuts grown in Kotabagh area with broad fruit and distinct taste
Raamgarh Ka Seb (Apple)	2	2%	Different Varieties of Apples Grown in Ramgarh area of Nainital District
Shyamkhet Ka Aadu (Peach)	4	5%	Peach Grown in Shymkhet area has got Big Size and Distinct Aroma
Wax Work of Nainital	6	7%	Wax work of Nainital is characterised by candles embelished with the local lichen, ferns and small dried flowers
Others	4	5%	No Proper Description Available
Total	82	100%	

Source: Primary Data

15% of the Respondents suggested Kumaoni Picchora could be one of the product, that has a potential for GI registration, while same number of persons believed that Baalmithai of Almora can be the potential one. Followed by Munsyari ki rajmah, Singauri of Almora, Lohaghat Ki Moongfali & Kumaoni Nath with, 11%, 10%, 7% and 7% respondents suggesting them respectively.

FINDINGS OF THE RESEARCH

- Majority of the respondents (95%) were not aware of the Geographical Indication Registry, though they were aware of trademark and copyright. Out of which 39% of the Respondents were not aware of any IPRs at all, however others (61%) had at-least some awareness about either of trade mark, copyright or patents or a combination of them.
- Individually penetration of awareness of Trademarks had highest recall where 22% respondents were aware of it.
- Maximum number of respondents got the information regarding the IPRs through Television and Newspapers, 16% and 15% respectively, Hence this could also be one of the medium to increase awareness levels. There were only 5% of respondents who had become aware through Government and NGOs initiatives.
- Farmers were the ones who were mostly aware of Geographical Indication, Patent, Trademark, and Copyright, while others has lesser awareness in comparison. Still given the kind of distinctiveness Uttarakhand has in flower, fruits and medicine production, there is a huge scope for GI registry and upliftment of the region in turn.
- Education also had a direct impact on the awareness level towards various IPRs as 66% of the total respondents who did not had any knowledge about the IPRs were educated below matriculations.
- Study clearly indicates that a small session of 10 minutes with insights into GI Registry, resulted positively in the awareness levels of the respondents, awareness level regarding the GIs increased to 57% from 5% after the session. Thus people can be imparted the awareness easily, hence seminars / camps in this regard are bound to give good results.
- Post explanation about GI, 67% of the Respondents believed GI registry was important to support the craft, products / produce of Uttarakhand, irrespective of the education level, respondents were able to perceive the benefits of the importance of GI clearly. 89% of Graduates, 65% of Postgraduates, and 60% of Matriculates, 56% of respondents with an education up to XII, were of the opinion that GI is important.
- Most of the respondents were able to perceive the role of all stakeholders in this regard, as 32% of the respondents believed that it needs to have a coordinated effort of all the stakeholders in identifying and providing GI security and promotion to the products.

- Post the small session respondents could identify and also suggest probable products for GI registration, 15% each of the Respondents though Kumaoni Picchora and Baalmithai of Almora can be the potential one. While other potential products were Munsyari Ki Rajmah, Lohaghat Ki Moongfali, Kumaoni & Garhwali Nath, wax work of Nainital, and some fruits and other produce of the region.

RECOMMENDATIONS/SUGGESTIONS

- The Small Scale Industries Institutes should launch MSME backed awareness programmes, specially focused on Geographical Indication Registry should be made; so as to help the local artisans, craftsmen, producers to in this regard.
- Panchayati Raj institutions can play a vital role in disseminating positive information and creating awareness in this regard. District Development Officers can organize Geographical Indication Registration Training programme.
- There was an IPR camp on GI protection for Baalmithai & Singauri (Both Sweets of Almora) in March 2007, organised by Small Scale Industries Institutes at District Industrial Centre, Almora; however it could also not materialize. The organizers of such camps should go further, and in addition to identifying the products and organizing the seminars / camps they should help in the registration process also.
- The Government may also use alternative means to increase the level of awareness of Geographical Indication Registry and implications, and continuously post information through local media channels (local newspapers, regional TV channels, Community radios) , as majority of the people got awareness through the TV and Newspapers.
- The Asst. Registrar of Geographical Indication Registry had an opinion that Himachal Pradesh from Himalayan region and other Southern States have started good work in this regard however, Uttarakhand is lagging behind. He said GI Registry office, organizes seminars on GI registration, on invitation from the local authorities and institutions and is keen to do so in Uttarakhand. Thus NGO, Local authorities and Institutions can get in touch with the GI office Chennai and organize GI seminars in all the areas of Uttarakhand.
- The Intellectual property facilitation centre (IPFC), of Uttarakhand should take a lead in this regard and identify the probable products for GI Registration and then organise various programmes in this regard. They should register products on the behalf of the producers.
- The programmes should be organized in a phased manner, with initial phase focusing on awareness and identification, next phase for helping in documentation and guidance (programme, where actually documentation is completed with all details and application is sent to GI office from there itself) and then a programme to impart the knowledge in reaping the benefits of GI registry.

CONCLUSION

It has been clearly observed that even after getting separated from UP, Uttarakhand has not been able to en-cash the geographical advantage that it has got in terms of intellectual property. UP having already registered almost 9 Geographical Indication, ranging from Banarasi Brocade to Mahilabadi Dussheri Mango and Allahabadi Surkha till March'13 and a couple in que, has gone far ahead in this regard.

With many International Brands coming to India, Big Corporates having started selling and even manufacturing handicrafts items, Competition has become more intense. World has become a small village, quick transmission of information worldwide, customer having many tools to search, knows and buy products, It is becoming very hard to get a mind space of a consumer and sell the products to them. From Uttarakhand, many of the small players, and craft artisans, handlooms operators, etc, have been forced to leave their traditional work, be it farming or handicraft making. The current census also confirms the decreasing density of population in the hilly regions.

In this kind of scenario, where Branding & Marketing has also become a necessary evil and a very costly affair, the opportunity that Geographical Indication Registry provides is enormous. Post GI registration the current low cost platform communication activities can be undertaken, i.e communicating through e-mail or what we call as internet marketing, e-wom (e-word of mouth). The proprietors and authorized users need to be educated to utilize the such e- platforms. It is also to be understood that, mere taking Geographical Indication Registration is not going to be a solution in the long run for the products of Uttarakhand, making it to highlight the product and its personality connect through a well balanced logo (logos are also covered under GIs) will have to be undertaken in the another step and next the regular scanning of the market will have to be done, to keep an eye on falsifiers.

Standardizing the quality of products being produced by the authorized users and regular quality checks will strengthen the image of the GI.

Further Uttarakhand Government and Administration needs to look towards the model set by the Himachal Pradesh in this regard, where Himachal Pradesh Patent Information Centre (HPPIC) under State Council for Science Technology and Environment, has registered four products under GI till date while another one is in process. By having a Policy for the Registration and Protection of Geographical Indications of Goods, vide notification no. STE-F(1)-6/2004, Dated 10th Sept, 2004, Himachal became the 1st State to Policy for the Registration and Protection of Geographical Indications of Goods. HPPIC has been designated to identify Geographical Indication (GI's) of Himachal and till now it has identified twenty more products. Though Uttarakhand has Intellectual property facilitation centre (IPFC) under State Council for Science and Technology, however it has not been able to take any lead in this regard.

It worth mentioning that, many associations of producers of various products like, Lucknow Chicken, Coorg Orange, Kangra Tea, Bikaneri bhuja, Surat Zari, Banarasi Silk, Mysore Silk & Kancheepuram Silk, to name a few have been able to put the registry under Geographical Indications to the benefits of all users.

It is to re-emphasize that in addition to the producers & craftsmen, the Government, Local authorities, NGOs and Social Workers has a vital role to play in this regard, since many of the workers are not familiar with the concept of Geographical Indication Registry, branding concepts and latest Information Technology tools for low cost promotion. Thus imparting them this knowledge and sensitizing, has to be taken forward.

Further we need to look at the way the Darjeeling Tea, Mysore Sandal Soap, Odisha Pattachitra and others have gone a way ahead to carve a niche and brand image for them-selves in addition to having a G.I registry.

SCOPE OF FURTHER RESEARCH

Time constraint being the limitation, this study was carried out in a span of 10 Days in a restricted area, and data was collected from respondents without taking into account other demographics criteria , i.e Income , age and family. However research can be carried out further in all districts / tehsils, specifically in the pockets where the distinctiveness of the products / produce which have higher possibility of earning a Geographical Indication Registry, taking all these parameters into consideration, to reveal a much better picture. Further, views of NGO officials and Government Authorities can also be incorporated.

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ANNEXURE

QUESTIONNAIRE

PART A

Q1. Out of i) Patent ii) Trademark iii) Copyright iv) Geographical Indication; please indicate what all you are aware of?

a). I am aware of b). I am not aware of any one of these.

Q2. From where you got information about the same?

a). Newspapers b). TV Channels c). Government and NGO Programmes d). Magazines and books e). Family and Friends f). Others g). No Information

Q3. Please specify your Occupation?

.....On the basis of response it was categorized into, a) Woodwork b) Textile Related (Hand Knitting, Printing etc) c) Wax Work d) Farming e) Floriculture f) Others

Q4. What is your educational Qualification?

a) Below X b) X-XII c) Graduate d) Postgraduate

PART B

(Administered after explaining the basics of Geographical Indication)

Q5. Now are you aware about the Geographical Indication?

a). Yes b) NO c) Yes but I am a bit confused

Q6). What do you feel about the importance of GI in context of Uttarakhand?

a). It is important for us b). It is not important c). Cannot Say

Q7). Can you suggest some of the products / produce that can be registered under GI?

a)..... b). No idea

Q8). What do you feel, who should come ahead for supporting the GI registration?

a). Government b). NGOs c). Producers themselves d). All of them e). No idea

Note: English version veing replicated here, however the same was administered in hindi.

MARKET MIX STRATEGIES FOR DESTINATION AS A RURAL TOURISM PRODUCT

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ABSTRACT

"India lives in its villages" this is ever true because according to 2011 census 68.23 percent population still lives in villages termed as rural area. Rural India is diverse in nature enriched with pollution free natural agricultural based environment, rural traditions, customs, culture and valuable heritage assets. This area is a very wide market base for all kinds of products like agriproducts, manufactured goods and even service products. Many multinational players entering to capture this market by introducing their own products as well on the other side this market itself provide a service product i.e. rural tourism to the urban area. Indian economy is showing increasing growth and rise in disposable incomes of Indians, motivation towards travel and tourism is increased. Therefore there is increasing demand for various tourism forms. Rural tourism is one of the alternative forms of tourism which follows the principle of sustainability and responsibility. The rural tourism potential in India has been realized very late when compared to the other part of the world. The government of India has notified rural tourism as one of the major sources for generating employment and promoting sustainable livelihood. This paper is based on secondary data collected from published articles, journals books, government reports, websites and news papers. This study focuses on the conceptual part and market mix strategies to develop and promote rural tourism as a product of rural market.

KEYWORDS

Rural Tourism, Rural Market, Service Product, Sustainable Development.

INTRODUCTION

India lives in its villages" this is ever true because according to 2011 census 68.23 percent population still lives in villages termed as rural area. Rural India is diverse in nature enriched with pollution free natural agricultural based environment, rural traditions, customs, culture and valuable heritage assets. This area is a very wide market base for all kinds of products like agriproducts, manufactured goods and even service products. Many multinational players entering to capture this market by introducing their own products as well on the other side this market itself provide a service product i.e. rural tourism to the urban area. Indian economy is showing increasing growth and rise in disposable incomes of Indians, motivation towards travel and tourism is increased. Therefore there is increasing demand for various tourism forms. Rural tourism is one of the alternative forms of tourism which follows the principle of sustainability and responsibility. The rural tourism potential in India has been realized very late when compared to the other part of the world. The government of India has notified rural tourism as one of the major sources for generating employment and promoting sustainable livelihood.

OBJECTIVES

1. To study the concept of rural tourism as an alternative tourism form.
2. To discuss the necessity for tourism marketing.
3. To study the market mix strategies of rural tourism.

METHODOLOGY

This paper is based on secondary data collected from published articles, journals books, government reports, websites and news papers.

RESULT AND DISCUSSION**CONCEPT OF RURAL TOURISM**

The term rural tourism has varying connotations across the globe. It is well defined and development concept in European countries such as U.K., Hungary, Finland, Greece and other developed nations. Unfortunately, this concept has not been taken up seriously in the developing nations so far like India. However, rural tourism has a long history. In early age, there was no concept of commercial guest accommodation such as hotels and other types of accommodation, though they were existing in different forms in some important trade routes. In those days, when people were traveling, they were staying in rural areas where the local people were providing food and shelter to those visitors. Moreover, the local people met the demands of travelers and provided them various facilities. However the industrial revolution and World War II have changed the entire scene of the tourism at global level. This has resulted into a concept of second home, and locale found it as an extra source of income and consumption of perishable agricultural product. Thus rural tourism became an alternative to mass tourism. Since 1970 the volume of rural tourism demand in Europe has been growing considerably, apart from two periods of stagnation at the beginning of the 1980s and 1990s. Since the rural attraction supply has increased at an even higher growth rate in different developing as well as developed nations. Rural tourism is a form of alternative tourism. In fact it is relatively a new development against mass tourism (Chand and Kumar 2006).

Any form of tourism that showcases the rural life, art, culture and heritage at rural locations, thereby benefiting the local community economically and socially as well as enabling interaction between the tourists and the locals for a more enriching tourism experience can be termed as rural tourism. Rural tourism is essentially an activity which takes place in the countryside. It is multi-faceted and may entail farm/agricultural tourism, cultural tourism, nature tourism, adventure tourism, and eco-tourism. As against conventional tourism, rural tourism has certain typical characteristics like; it is experience oriented, the locations are sparsely populated, it is predominantly in natural environment, it meshes with seasonality and local events and is based on preservation of culture, heritage and traditions (tourism.gov.in).

Rural tourism has been identified as one of the priority areas for development of Indian tourism. Rural tourism experience should be attractive to the tourists and sustainable for the host community. Indian villages have the potential for tourism development. With attractive and unique traditional way of life, rich culture, nature, crafts, folk-lore and livelihood of Indian villages are a promising destination for the tourist. It also provides tourism facilities in terms of accessibility, accommodation, sanitation and security.

NECESSITY FOR RURAL TOURISM MARKETING

Tourism is a very complex industry because of its multi-faceted activities which together produce the tourist product. It is also complex because of various sub sectors that are in themselves complete industries, if considered independently (lodging, transport etc). Its complexity, furthermore, lies in the fact that tourism promotion in its various forms has to be directed at large number of people in various lands of different socio-economic structures having different needs, tastes, attitudes, expectations and behaviour patterns. It is only through the efficient marketing strategy that will help to understand people's tastes and preferences for travel. Tourism is the fastest growing industry in the world and therefore the need for marketing it becomes imperative. The need arises due to following Characteristics of tourism product

Intangible: Manufactured goods are tangible in the sense that they have physical dimensions and attributes and can be seen, felt, or tasted. The tourism product is an intangible product.

Inseparability: A physical product is produced in the factory, bought in the shop and consumed in the customer's premises at his convenience. But when the customer buys a service like traveling in an airline, the production and consumption of the services takes place at the same time. The experience of the tourist product exists when it is produced as well as consumed.

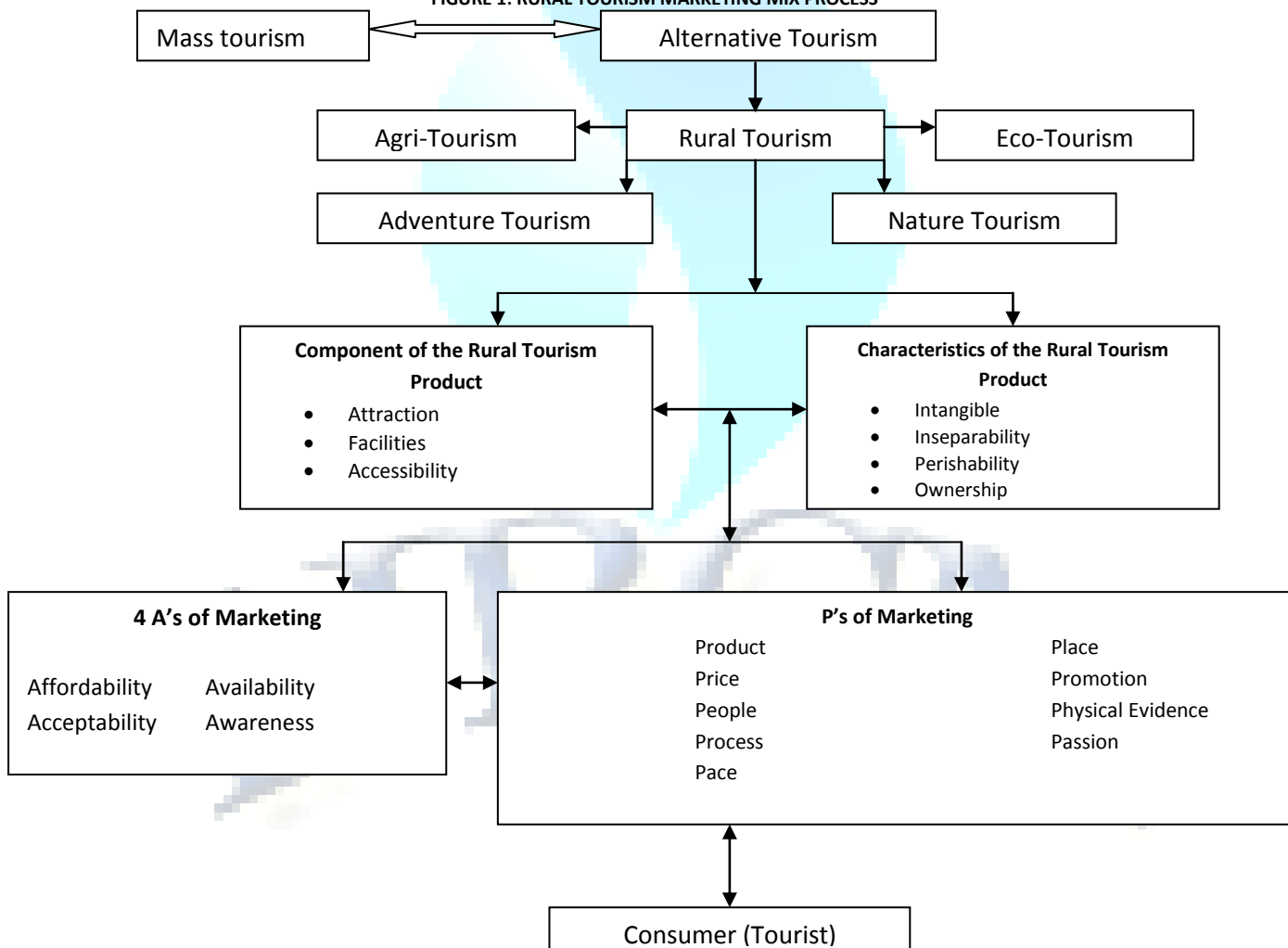
Perishability: A manufacturer of a physical product can anticipate the demand in advance and store the goods in warehouse and deliver them to the customers at the time of need. But the supply of the tourism product cannot be stored because tourism products are highly perishable.

Ownership: No ownership passes from seller to buyer in a service. The buyer only acquires the right to certain benefits of what the seller offers. One may have the right to use a hotel room or a railway berth for a period of time, but the ownership of the room or berth remains with the hotel or the railways.

Tourism needs to be marketed just as any other product, indeed more so, because it is an industry where the customer still has an immense variety of choice. The choice for the holiday maker is wide as more and more countries and resorts throughout the world expand their tourism industries. According to Krippendorf, J., marketing in tourism means "systematic and coordinated execution of business policy by tourist undertakings whether private or state owned at local, regional, national or international level to achieve the optimal satisfaction of the needs of identifiable consumer groups, and in doing so to achieve an appropriate return."

Specially rural tourism requires special efforts towards marketing as it is emerged from mass tourism and this is the form of alternative tourism where tourist expected to gain new experience. The various products of rural tourism is rural oriented operated mostly by rural people, tourist from urban area are unaware about such kind of rural tourism forms. Marketing techniques provides proper publicity and selling ideas for rural tourism products which is present in the rural market.

FIGURE 1: RURAL TOURISM MARKETING MIX PROCESS



While studying the marketing of rural tourism it is necessary to take into consideration the components of the rural tourism product on which this product is developed. **Attractions** constitute an important feature of the product. Attractions are those elements in the tourist product, which determine the choice of the particular tourist product, to visit one particular destination rather than another. **Facilities** are those elements in the tourist product, which are a necessary aid to the tourist centre. The facilities complement the attractions. These include accommodation, food, communications, guides and so on. **Accessibility** is a means

by which a tourist can reach the areas where attractions are located. Tourists' attractions are of little importance if their locations are inaccessible by the normal means of transport.

9 Ps OF RURAL TOURISM MARKETING

Product: The tourism product is totally different than manufactures products, because the potential tourist can't feel, taste, touch or sample a tourism product. The basic elements of tourism product are Attraction, Recreation, Accommodation, Restaurant, Transportation, and Shopping. While developing the Rural tourism product this points should be take into consideration as product here in rural tourism is the total tourism expenses of the rural place, here marketer can manage in two ways, one by maintaining the riche of services e.g. he may specialize in one of the many areas of rural tourism or he may offer the basket of related product like Agritourism, Eco-tourism, adventure tourism, nature tourism. The rural tourism product should be design in such away that it gives rural life expenses to the urbanites as the decision regarding this kind of product is experience based. As well as the three basic principles should be followed i.e.

- The product should have thing to do – Recreation
- The product should have thing to see – Attraction
- The product should have thing to buy – Shopping

Along with these, the product should posses the basic lodging and boarding facilities. The various product decisions that are to be made are in regard with, Brand name, Functionality, Styling, Quality and Safety and support

Price: The pricing decision in tourism industry are found critical and challenging since it is a multi segment industry when a tourist proposes to visit a rural tourism place, the total cost includes the expenses incurred on transportation, accommodation, communication or so. No marketing without pricing. The whole process of making a sound pricing decision, of course, is a play of manipulation. If we succeed in manipulating the variables influencing the pricing decisions, the success at the market can be denied. The controllable variable like product, distribution and promotion are well within the reach of the marketers but so far as the uncontrollable variables required more care and precaution (Jha 2009). The pricing decision is broadly determined or significantly influenced by the following 4's 1) Customer Value, 2) Competitors prices, 3) Cost to the tourism organization and 4) Strategic and pricing objectives of the company.

The high spending tourists are not sensitive to price but the general tourists are found price sensitive. So while pricing decisions the following steps should be take into consideration

1. Estimate the rural tourism demand.
2. Calculate the product cost
3. Developing an understanding of the environmental factors. Competitors and legar environment
4. Finalize the pricing objective
5. Select the pricing method
6. Develop the price structure
7. Determine the margins
8. Determine the discounts
9. Fixed the product price

Place: Place refers to the point of sale. It is a manifestation of the strategy of any organization about how an in what manner it wants its products and services to be made available to the customers so that a profitable exchange can be instituted with the customer. In every industry catching the eye of the consumer and making it easy for her to buy a product or services is the main aim of a good distribution or place strategy (Dog and Ghuman 2008). The tourism industry is a multi segment industry where accommodation, attraction, transportation, communication are found important. As rural tourism is a alternative form of tourism, most of the tourist unaware about this tourism product, as well they are doubtful regarding visiting to the rural side for tourism as they have the fixed picture of village in their mind which alert them about unhygienicness, poor sanitation, poor accommodation facility and poor quality of food and water. So through the place strategy is foremost important to remove this picture from their mind and set a good image about the rural tourism. Everybody know that success of business is depends upon "Location, Location and location," so the location that marketer select for the rural tourism should be accessible to the tourist and basic infrastructure facilities should be there to serve the tourist. Secondly to reach to the urban tourist through the proper channel is also a biggest task so, here the term distribution denote the method through which the rural tourism product reaches to the proper destination. The middlemen are the link and if the link is strong, the marketing succeed in raising the influx of tourist. The middlemen are the tour operators and the transport operators who by the services and sell the same to the travel agents or directly to the customers.

Promotion: This refers to all the activities undertaken to make the rural tourism services known and preferred amongst the tourists. Creation of awareness has a far reaching impact. The rural tourism marketer has to bear the responsibility of informing, sensing and persuading the potential tourists in a right fashion. It represents the various aspects of the marketing communication that is the communication of the information about the product with the goal of generating the positive consumer response. The tourism promotion is an effort to implement marketing plan formulated by the tourist professional. It helps in choosing their own rural tourism product, maximizing the duration of stay and frequency of visit by offering new tourist product in the same area. The rural tourism promotional activities includes, Advertising, Publicity, Sales promotion, Word of mouth promotion, Personal selling, Tele-marketing, Information brochures, Website development and Sales letter.

People: Besides the above 4 P's i.e. Product, Price, Place and Promotion this 5th P i.e. People is most important in case of rural tourism. The rural tourism product is get developed in the rural area itself, no one can provide the rural life experience through building the artificial rural environment in urban area so each and every component of rural area is equally important for rural tourism. Here this 'People' component includes all the people who are directly or indirectly involved in the rural tourism product. This includes

1. Employees of the rural tourism project
2. Community members of the area of the rural tourism site
3. Tourist

The co-ordination among the above members is very essential to run the project successfully. Tourist people needs rural life expenses, so the conduct, empathy and sympathy of the local people is of vital importance, the employees are the core part of any business, satisfaction of the tourist is directly related to the hospitality and customer service provided by the employees. Also it should not be ignored that, the behaviour of the tourist must be responsible. So, this part is very important.

Physical Evidence: The ability and the environment in which the service is being delivered, both tangible goods that help to communicate and perform the service and intangible experience of the existing customers. In this case it could the cleanliness and hygiene of the area under study (Chand & Mahajan).

Process: The procedure, mechanisms or the flow of activities with which the services are being delivered and consumed. It encompasses the supply chain of the various things like food, information etc. the supply chain has to be very responsive and should aim at deliverance of value for money to the consumer (Chand & Mahajan).

Passion: Primarily, it represents an attitude, commitment and seriousness towards serving the tourist from urban area. It demonstrates the strength of will at all levels of rural tourism project to tap the urban tourism market to its optimum level. The marketer in order to be successful in this area, should blend his personal energy and passion with the traditional marketing mix. The marketer must be passionate about being successful in the rural market.

Pace: Product intended to be sold in the urban tourism market need to be launched into the heart of the customers, at the pace required in this market and not at the pace at which the marketer wants it to be. Travel agents and communication media like internet has the influence over tourist, so marketer first reach to these medias. The rural tourism product can be reached and won only if an organization has the required passion and pace to beat the entrepreneurial energy of small, local and regional players who are already well established in the tourism market.

Besides the 9 Ps of marketing there are 4 As are most important because these factors are based on the consumer's i.e tourists point of view.

Affordability: Affordability factor does not mean cheaper rural tourism product or rural tourism experience, but it means to developing the rural tourism product which match the needs of the tourist, at a price that they feel, is value for money. The price of the rural tourism product should considered the income as well as the pattern in which the income is earned and making the consumer believe that the product is actually affordable and within their buying capacity.

Availability: Ensuring the rich of the information about rural tourism destinations at the travel agents is one of the most critical functions. Once the rural tourism product reaches the travel agents desk, it more or less ensures the sale of the product. This is because travel and tourism decisions are always influenced by travel agents.

Awareness: Rural tourism is a alternative form of tourism therefore to build the awareness of this product in urban and semi urban area the marketer has to use unconventional media and below the line activities, along with the commercials on the traditional media like TV, radio and the outdoor media. While developing the awareness, it is important to develop a message which highlights the importance of rural tourism over the conventional tourism.

Acceptability: It is very important that tourist feel that the rural tourism is as per their needs and gives the exiting rural life experience. The urban tourist now finding ways to get relax in pollution free natural environment, therefore they must feel that the rural tourism product serves its purpose and then they are ready to experience this product.

CONCLUSION

Rural tourism presently faces the challenges of exploitation of rural environment, shortages of trained manpower, inadequate physical amenities, language problems and business planning skills etc. but besides this still India is emerging as best destination for rural tourism because there is very vast scope for such kind of product. With the development of this product the special emphasis should be given to tourism marketing, after thorough study of market mix for rural tourism marketing, we need to adopt the firm strategies for effective marketing of rural tourism. The following are some of the strategies.

- Analyse the customer's decision.
- Look for alternative source markets.
- Analyse the rural tourism business.
- Go for niche marketing.
- Have a realistic approach.
- Bring about innovation.
- Avoid mass marketing.
- Advertise regularly
- Negotiate better.
- Have a interactive websites.
- Focused on the people.
- Promote the business USP (Caprihan and Shivakumar 2006).

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SPECIES-WISE MAJOR MARINE FISH PRODUCTION: TRENDS AND GROWTH PERFORMANCE IN SINDH

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ABSTRACT

Fish being the biggest source of food to mankind, many of the countries have capitalized on this potential of these deep seas. Fishing industry of Pakistan employs more than 1% of the labor force. It is also a major source of employment, especially for those people living along the coastal belts of Sindh province and Balochistan. Pakistan is ranked as protein deficient country, as per capita fish consumption in Pakistan is very low, whereas in the rest of East Asia and South the domestic consumption is fifty percent of the total production. Domestically Pakistan consumes only 25 percent with 20 percent being exported and a big 55 percent going for fishmeal. This study analyzed the trends and growth performance of species-wise marine fish production for two different periods of Sindh coastal areas to clearly bring out the more recent trends. Period I (1985 to 1996) and Period II (1997 to 2008). The study confirms that in Period I, out of fourteen species eight species (Sole, mangra, pitton, tarli, palla, aal, dawan, hira, poplet, and khagga) showed significant positive growth mainly due to proper stock assessment of marine resources, research and development programmes, control fishing and completely ban on illegal nets. The study also concluded that in Period II out of fourteen species five species namely mushka, surmai, dhotar, poplet and hira growth significantly increased while that of sole, mangra, pittan, khagga and aal growth rate significantly declined. The declining growth rate indicates the problem of over fishing.

JEL CLASSIFICATION

Q 10

KEYWORDS

Cold storage, coastal belts, compound growth rates, fish harbours, marine fish species.

INTRODUCTION

Fish being the biggest source of food to mankind, many of the countries have capitalized on this potential of these deep seas. Those countries which are situated along the coastal belts have emerged as major exporters of seafood besides providing to the nutritional needs of their own people. The fishing sector of Pakistan makes a contribution of \$237 million per annum to the national economy (Pakistan Economic Survey, 2008 09). Fishing industry of Pakistan employs more than 1% of the labor force. It is also a major source of employment, especially for those people living along the coastal belts of Balochistan and Sindh province. Fishing sector in Pakistan employs around 35,000 sail and row boats, gillnetters, and trawlers including many other manually-operable fishing tools and fishing apparatus.

Pakistan has vast marine and inland resources, which are rich for fishing purposes. The Arabian sea at the coast of Sindh and Balochistan has rich fish deposits of commercial importance. Pakistan has a coastal line of about 1120 kilometers, with a number of bays and broad continental shelf lying in front of the Indus deltas, which are ideal for the growth of marine life. On the basis of topography and productivity, the coast is divided into the following two zones.

- Southeastern Region or Sindh Coastal Zone
- Northwestern Region or Makran Coastal Zone

Sindh coastal zone is extended between Pakistan-Indian border and the Hub River. The bottom is generally sandy or sandy cum muddy. The region unlike Makran is characterized by a network of creeks having mangroves catering nursery for a number of marine inhabitants and is also suitable for trawling. The bays are Karachi port and Ibrahim Hyderi.

Makran coastal zone extends from Hub River to Iranian border. This region is characterized by a number of bays like, Sonmiani, Ormara, Pasni, Gwadar and Giwani. Due to narrow shelf, rough bottom and rocky areas, this region is not permissible for trawling.

The Indian Ocean on the Sindh coastal zone of Pakistan remains the main source of marine fish production in our country. Therefore the study is concentrated on Sindh coastal zone.

Though Pakistan fisheries share in total GDP declined to 0.4 percent in 2008 as compared to 0.78 in 1985, the potential is far greater. The per capita fish consumption of Sindh province is more as compared to Pakistan. It was 3.00 kgs per capita annually for Sindh as compared to 1.97 kgs per capita annually for Pakistan in 2008 (Table 1). Pakistan is ranked as a protein deficient country as per capita fish consumption in Pakistan is very low. Whereas in the rest of East Asia and South the domestic consumption is fifty percent of the total production. Domestically Pakistan consumes only 25 percent with 20 percent being exported and a big 55 percent going for fishmeal. There are many basic reasons behind this bleak scenario in the fishing sector of the country e.g. lack of technical expertise, and insufficient infrastructure with less facilities offered to fishermen.

TABLE – 1: PER CAPITA FISH CONSUMPTION IN PAKISTAN AND SINDH (Kg. per capita)

Years	Pakistan	Sindh
1985	1.80	4.10
1990	1.70	3.71
1995	1.80	2.66
2000	1.76	2.90
2005	1.95	3.00
2006	1.95	3.00
2007	1.96	3.07
2008	1.97	3.00

Source: Agricultural Statistics of Pakistan, Government of Pakistan.

The share of Sindh in total and marine fish production showed more or less a decreasing trend (Table 2). It declined to 67.0 percent of the total in 2008 compared to 67.5 percent in 1985. The share of marine fish production also decreased to 49.5 percent in 2008 as compared to 56.1 percent in 1985. As far as the share of marine fish production in Pakistan's marine fish production is concerned, it is showing a fluctuating trend. It was 68.8 percent in 1985, increased to its maximum (96.3%) in 2000 and then decreased to 71.1 percent in 2008. Poor handling of fish stock leads into massive post-harvest losses where almost 70 percent of the seafood becomes totally putrefied even before reaching the end consumers.

TABLE – 2: MARINE AND INLAND FISH PRODUCTION SHARE OF SINDH IN PAKISTAN'S TOTAL FISH PRODUCTION

Years	Pakistan (000 Tonnes)			Sindh (000 Tonnes)			Sindh's Share (%)			Share of Sindh Marine Fish Production . in Pakistan's Marine Fish Production
	Total Prod.	Marine Prod.	Inland Prod.	Total Prod.	Marine Prod.	Inland Prod.	Total Prod.	Marine Prod.	Inland Prod.	
1985	408.4	333.3	75.1	275.8	229.2	46.6	67.5	56.1	11.4	68.8
1990	481.0	367.8	113.2	320.9	260.6	60.3	66.7	54.2	12.5	70.8
1995	541.9	405.5	136.4	358.4	358.4	75.4	66.1	52.2	13.9	88.4
2000	614.8	438.4	176.4	422.3	422.3	113.6	68.7	50.2	18.5	96.3
2005	580.6	406.0	174.6	383.0	276.0	107.0	66.0	47.5	18.4	68.0
2006	604.9	425.0	179.9	394.0	285.0	109.0	65.1	47.1	18.0	67.1
2007	640.0	390.0	250.0	385.0	250.0	135.0	60.1	39.1	21.1	64.1
2008	685.0	477.0	208.0	459.0	339.0	120.0	67.0	49.5	17.5	71.1

Source: Agricultural Statistics of Pakistan, Government of Pakistan.

IMPORTANCE OF THE STUDY

Keeping in mind the above discussion there is a need to examine the trends and growth performance of marine fish production in Sindh Coastal areas. Not a single study of species-wise marine fish production in Pakistan or Sindh is available, this study is a maiden attempt in this direction. Results of this kind of study would be helpful for exporters, extension staff and policy makers.

The present study has, therefore been undertaken to examine the trends and growth performance of major species-wise marine fish production in Sindh. The following are the specific objectives:

1. to discuss major marine fish production share of Sindh in Pakistan's major marine fish production.
2. to discuss average production and percentage change in species-wise marine fish production
3. to discuss species-wise marine fish production trends
4. to estimate period-wise and species-wise compound growth rates of marine fish production.
5. conclusion and measures to promote marine fisheries

DATA SOURCE

The analysis is based on secondary data of species-wise marine fish production of Sindh, collected from various issues of Hand Book of Fisheries Statistics of Pakistan and Agricultural Statistics of Pakistan, published by Marine Fisheries Department, Government of Pakistan and Ministry of Food and Agriculture, government of Pakistan respectively. The analysis of species-wise marine fish production growth is done for two different periods. Period I from 1985 to 1996 and Period II from 1997 to 2008. In order to bring out more recent trends in growth, the data is distributed in two different periods. GDP share of fisheries in the last decade either remained the same or declined.

RESEARCH METHODOLOGY

A widely accepted growth model i.e. $y = ab^t e^n$ has been fitted to the time series data for estimating growth rates, whose log linear equation of the fitted model is given by,

$$\ln(y) = \ln(a) + t \ln(b) + \mu$$

where,

y = production (metric tonnes) of major marine fish

t = time variable in years (1, 2,n)

μ = disturbance or error term

a and b are the parameters to be estimated from the sample observations. The regression coefficient, b was computed by ordinary least squares (OLS) techniques.

The Compound Growth Rates (CGR) was estimated as:

$$\text{CGR (percent per annum)} = (\text{antilog } b - 1) \times 100$$

RESULTS AND DISCUSSION

Table 3 shows major marine fish production share of Sindh in Pakistan's major marine fish production from 1985 to 2008. The table shows that the share of species like dawan, mangra, pittan, tarli, khagga, aal, mushka, surmai, dhotar, poplet, hira and palla fish increased, while that of sole and shrimps/prawn decreased in 2008 as compared to 1985. In 2008 the highest share in descending order is, dawan (100 percent), hira (100 percent), shrimps/prawn (87.18 percent), aal (85.97 percent), dhotar (82.73 percent, tarli (81.86 percent), surmai (73.49 percent) mangra (70.20 percent), palla (69.70 percent) mushka (60.41 percent), sole (51.20 percent), pittan (46.20 percent), poplet (33.50 percent, and khagga (20.00 percent).

TABLE – 3: MAJOR MARINE FISH PRODUCTION SHARE OF SINDH IN PAKISTAN'S MAJOR MARINE FISH PRODUCTION

Years	Dawan	Sole	Mangra	Pittan	Tarli	Khagga	Aal	Mushka	Surmai	Shrimps/Prawn	Dhotar	Poplet	Hira	Palla
1985	89.34	65.47	33.13	27.85	42.04	3.76	6.54	37.33	26.92	97.10	48.62	12.43	91.11	44.66
1990	100.00	57.14	25.55	42.47	70.92	16.26	8.01	52.81	31.12	96.86	61.54	1.28	98.02	46.67
1995	100.00	65.89	30.97	47.13	75.55	15.37	12.73	59.00	17.72	95.11	75.60	15.60	95.54	50.42
2000	100.00	55.55	32.32	48.22	54.80	14.85	15.71	41.77	47.95	91.83	84.61	17.75	98.33	52.63
2005	100.00	48.30	67.22	48.10	56.04	18.18	82.93	58.02	63.23	96.17	91.20	36.11	100.00	70.97
2006	100.00	52.80	75.17	47.04	61.25	20.71	82.92	58.68	58.19	92.93	86.09	33.37	100.00	75.00
2007	100.00	51.95	71.12	47.60	82.29	17.48	79.34	59.04	59.84	88.42	83.77	34.31	100.00	74.19
2008	100.00	51.20	70.20	46.20	81.86	20.00	85.97	60.41	73.49	87.18	82.73	33.50	100.00	69.70

Period-wise mean production of major marine fishes and percentage change in Period II over Period I are presented in Table 4. During Period I, the average annual dawan production in Sindh was 72.443 metric tonnes, sole 12137 metric tonnes, mangra 78181 metric tonnes, pittan 69351 metric tonnes, tarli 142185 metric tonnes, khagga 20296 metric tonnes, aal 13341 metric tonnes, mushka 70381 metric tonnes, surmai 30128 metric tonnes, shrimps/prawn 321865 metric tonnes, dhotar 34701 metric tonnes, poplet 6530 metric tonnes, hira 11392 metric tonnes and palla 5866 metric tonnes. In Period II, the production of dawan increased by 15.08 percent, pittan by 27.56 percent, tarli by 4.97 percent, khagga by 18.43 percent, aal by 73.82 percent, mushka by 9.30 percent, surmai by 144.54 percent, dhotar by 49.81 percent, and poplet by 175.36 percent. The highest increase in production was recorded by poplet (175.36%) while lowest in tarli (4.97%). Similarly the production of sole, mangra, shrimps/prawn, hira and palla decreased by 13.54 percent, 17.00 percent, 67.82 percent and 56.61 percent respectively in Period II compared to Period I. As an ecological problem, the problem of over fishing is indicated when total catch size of any specie decreases. For better understanding of species-wise marine fish production trends we have presented Table 5 and Figure 1. The species like dawan, khagga, aal, tarli, mushka, surmai, dhotar, pittan and poplet production increased at the end of the study period (2008) but with a fluctuating trend, similarly the production of sole, mangra, shrimps/prawn, hira and palla decreased at the end of the study period but with a fluctuating trend.

TABLE – 4: PERIOD-WISE MEAN PRODUCTION OF MAJOR MARINE FISHES IN SINDH

Specie	Local Name	Scientific Name	Average Production (metric tonnes)		Percentage Change %
			Period-I (1985-1996)	Period-II (1997-2008)	
Dawan	Dawan	Thunnus tonggol	72443	83371	15.08
Sole	Sole	Pleuronectiformes	12137	10494	-13.54
Mangra	Mangra	Corcharhinidae	78181	64886	-17.00
Piton	Piton	Rajiformes spp.	69351	88464	27.56
Tarli	Tarli	Sardinella longiceps	142185	149250	4.97
Khagga	Khagga	Arius spp.	20296	24036	18.43
Aal	Aal	Scomberoides spp.	13341	23190	73.82
Mushka	Mushka	Scianidae	70381	76927	9.30
Surmai	Surmai	Scomberomorus spp.	30128	73676	144.54
Shrimps/ Prawn	Jaira+Kalri+Kiddi	Penaeus spp. Metapenaeus spp. Parapenaeopsis Seylifer	321865	315613	-1.94
Dhotar	Dhotar	Pomadasya spp.	34701	51985	49.81
Poplet	Poplet	Parastromateus niger	6530	17981	175.36
Hira	Hira	utjanus spp.	11392	3666	-67.82
Palla	Palla	Tenulosa illisha	5866	2545	-56.61

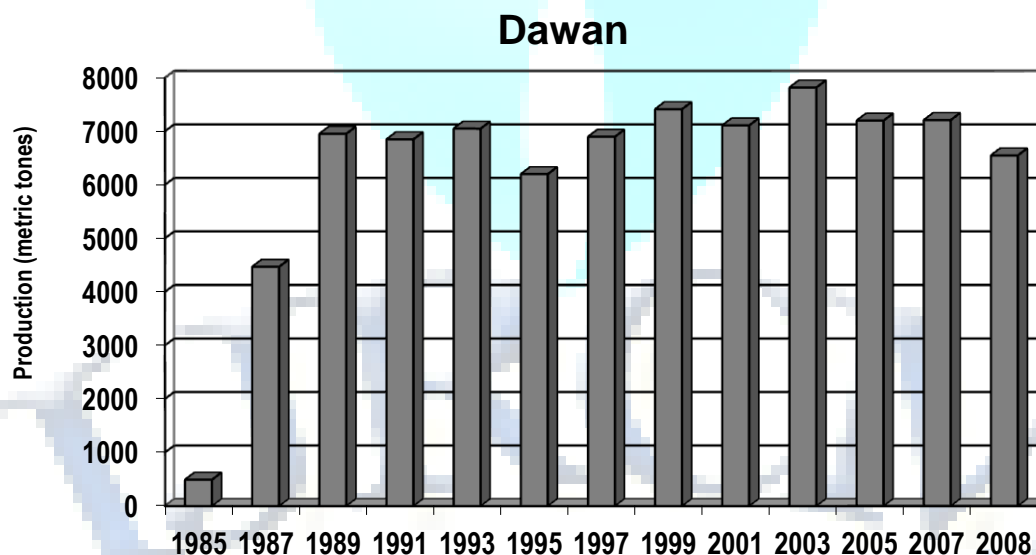
Source: Handbook of Fisheries Statistics of Pakistan Agricultural Statistics of Pakistan

Note: Period-I refers to marine fish production years 1985-1996 and Period-II 1997-2008

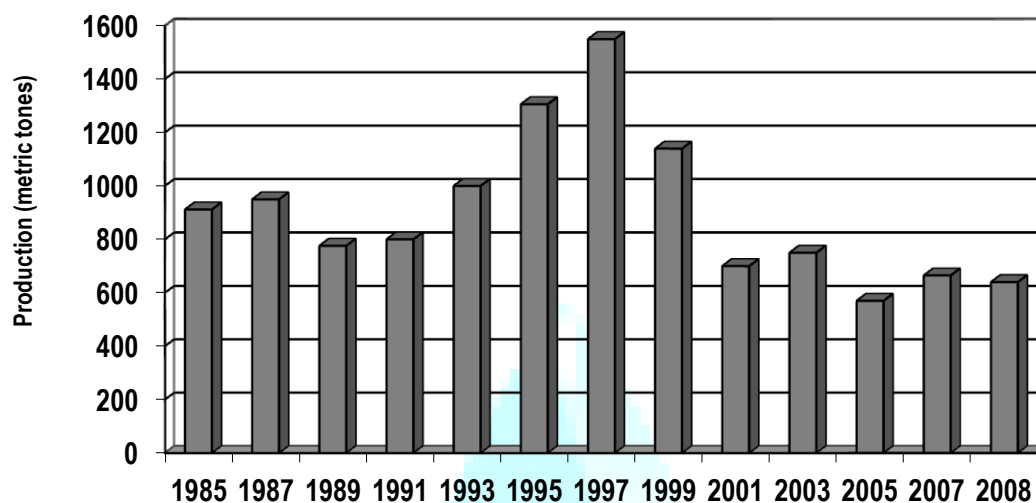
TABLE – 5: SPECIES-WISE MARINE FISH PRODUCTION TRENDS IN SINDH 1985-2008 (Production in metric tonnes)

Years	Dawan	Sole	Mangra	Piton	Tarli	Khagga	Aal	Mushka	Surmai	Shrimps/Prawn	Dhotar	Poplet	Hira	Palla
1985	492	912	4520	4000	4566	344	455	5907	2041	25911	2509	430	1107	928
1987	4469	950	4650	5600	9319	1851	850	5120	2694	29000	3307	510	990	707
1989	6953	776	4300	4600	13107	1775	775	5000	2652	22955	2800	470	825	403
1991	6850	800	4380	4310	14450	1740	850	7500	3000	26916	2630	550	955	600
1993	7050	1000	9120	7110	11250	1770	1000	3370	3250	28281	2880	550	800	350
1995	6200	1306	10000	7750	14609	1780	2100	7110	1650	26100	3100	500	300	240
1997	6898	1550	10120	7314	13900	1770	3350	7660	2400	27760	3760	580	230	270
1999	7414	1140	10550	9990	12100	1900	2505	5048	4470	21460	3500	569	300	260
2001	7110	700	5560	7750	10000	1830	2100	5900	5440	24160	4460	1350	266	100
2003	7818	750	3200	6000	11200	1950	1980	6660	7360	29160	4540	010	260	190
2005	7200	570	1620	6980	10390	2036	1020	7740	8350	29100	4560	2275	350	220
2007	7210	665	1682	3595	18310	2100	420	8000	7540	25200	4775	2230	320	230
2008	6550	640	1620	3560	18500	2500	450	7600	10200	23260	4550	2010	350	230

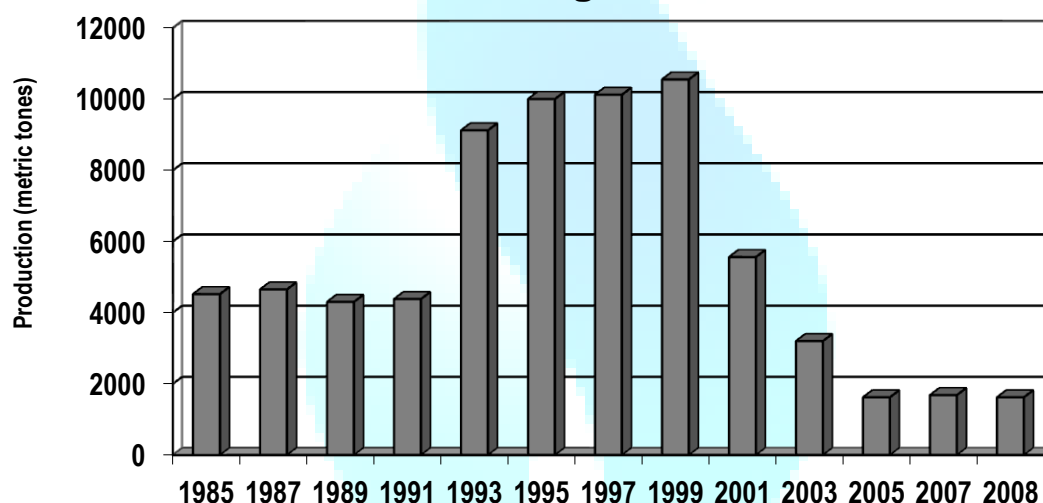
FIGURE – 1: FLUCTUATIONS IN SPECIES-WISE MARINE FISH PRODUCTION IN SINDH



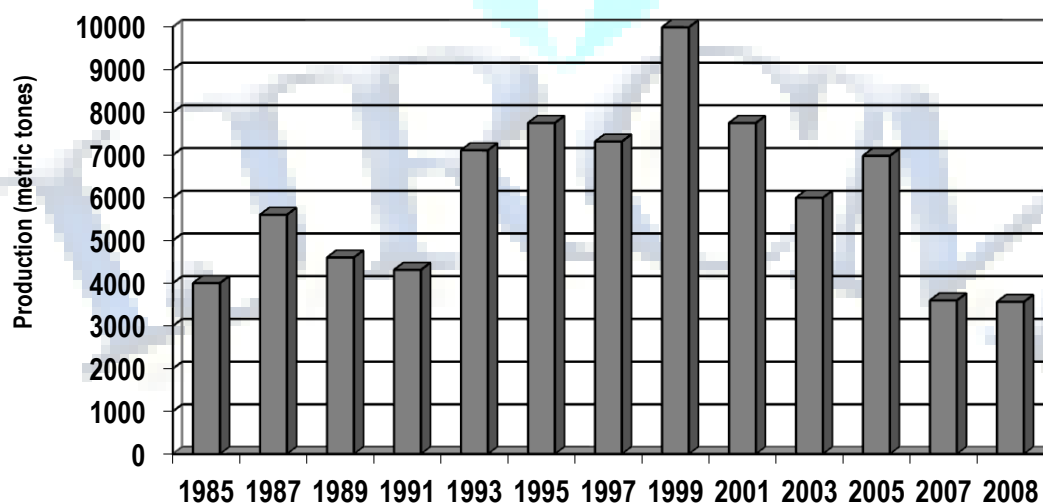
Sole



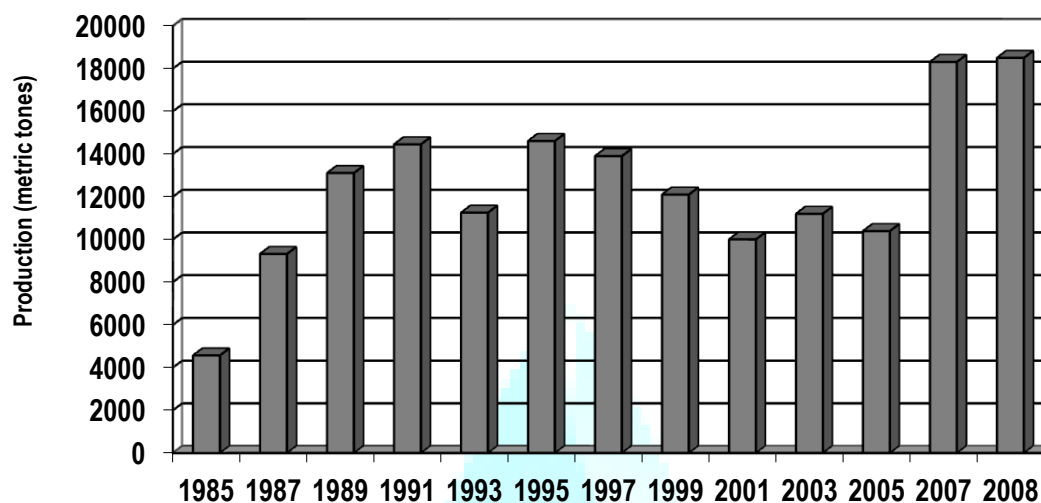
Mangra



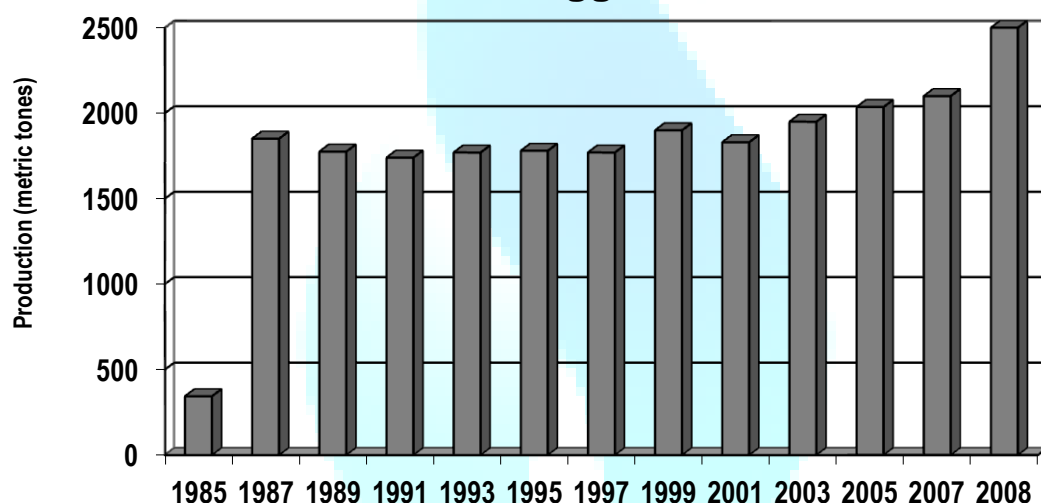
Pitton



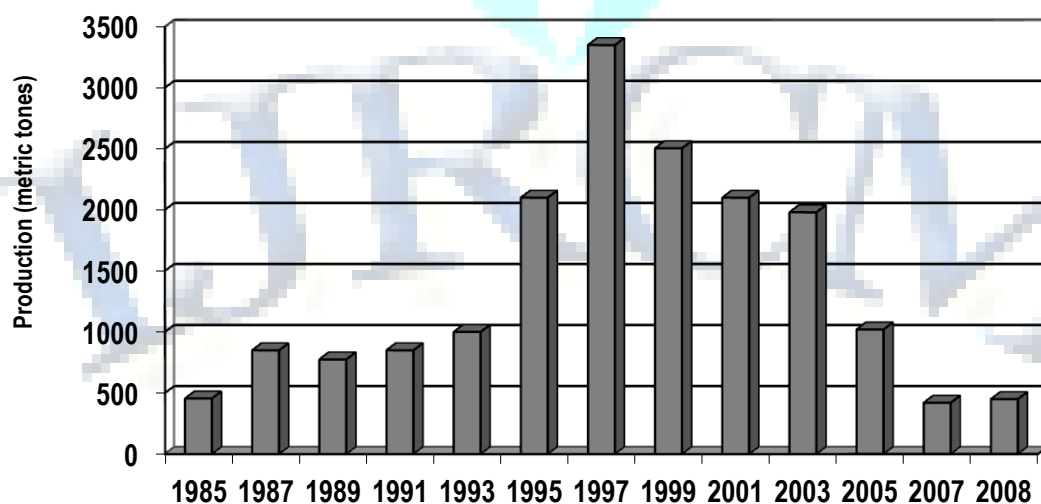
Tarli



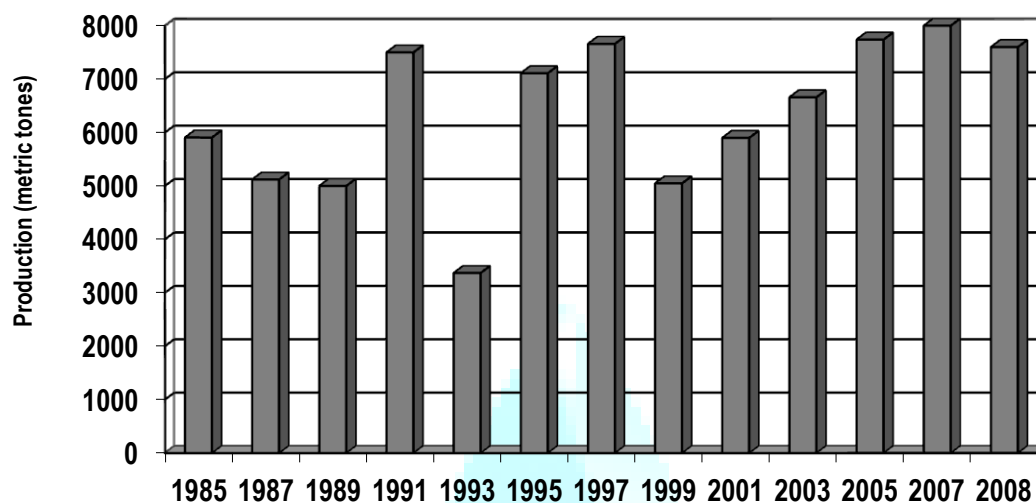
Khagga



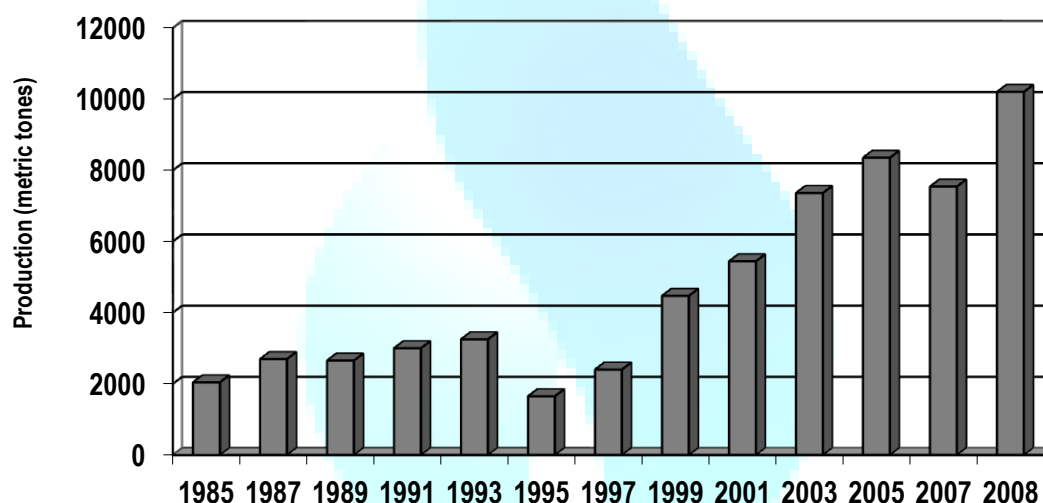
Aal



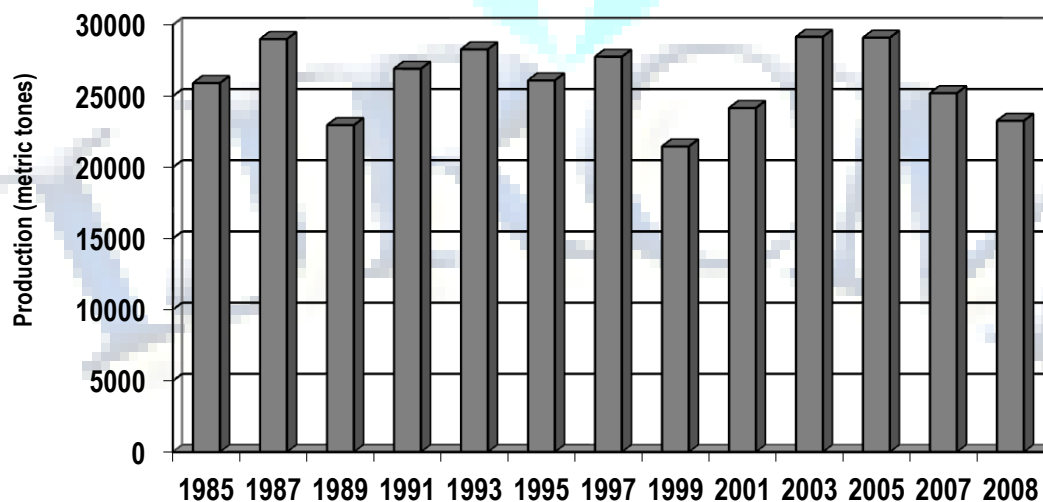
Mushka



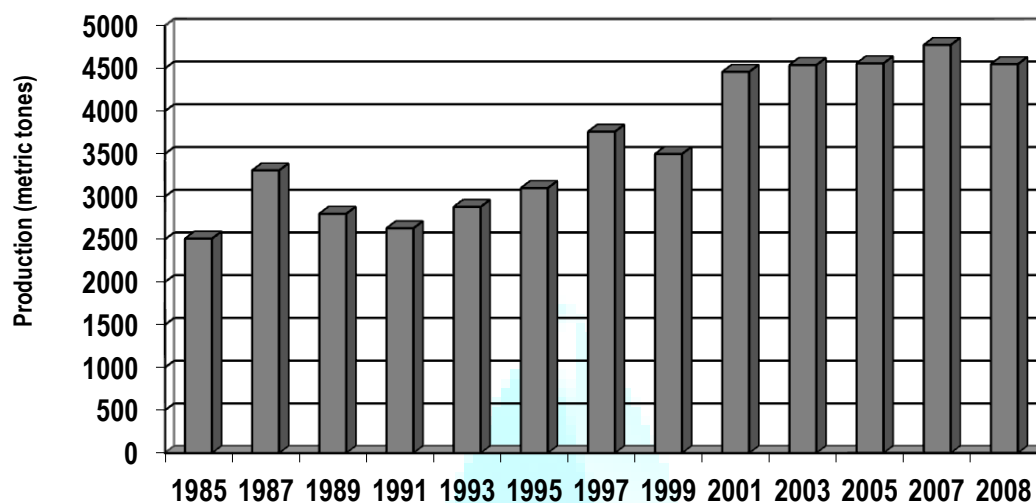
Surmai



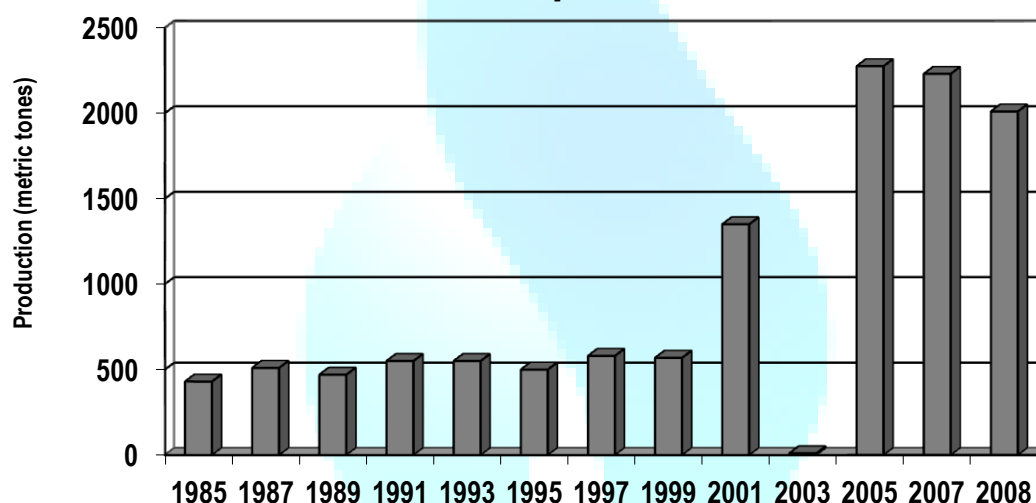
Shrimps/Prawn



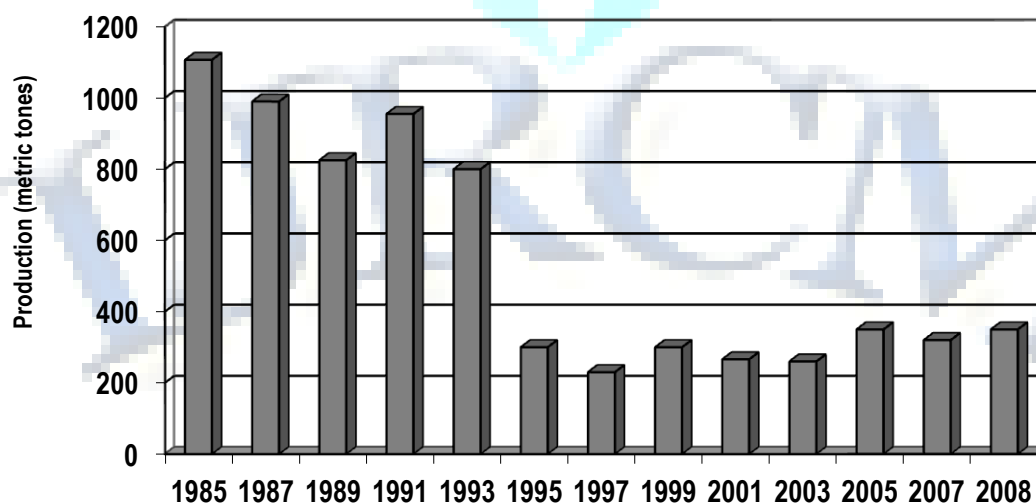
Dhotar



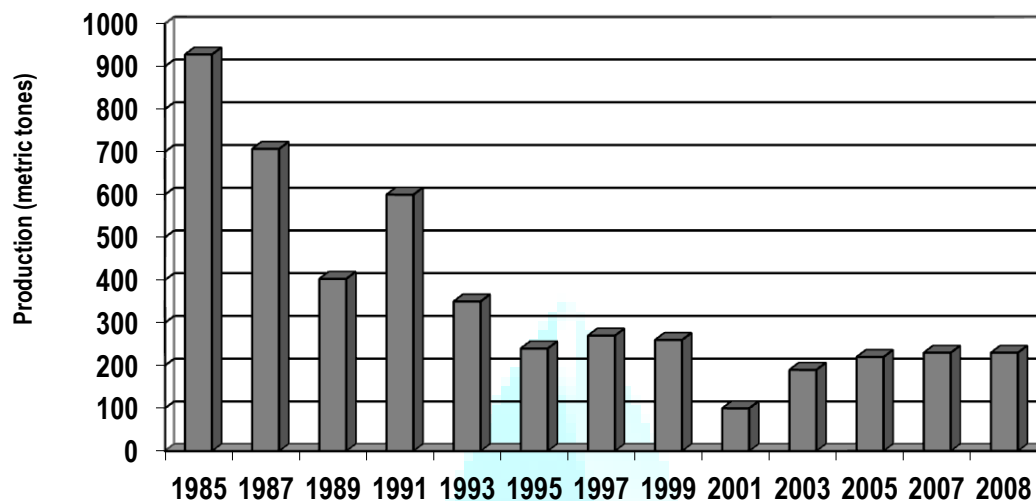
Poplet



Hira



Palla



GROWTH RATES ANALYSIS

Using growth model equation, we have estimated the annual compound growth rates of marine fish production for two different periods (Table 6 and Figure 2).

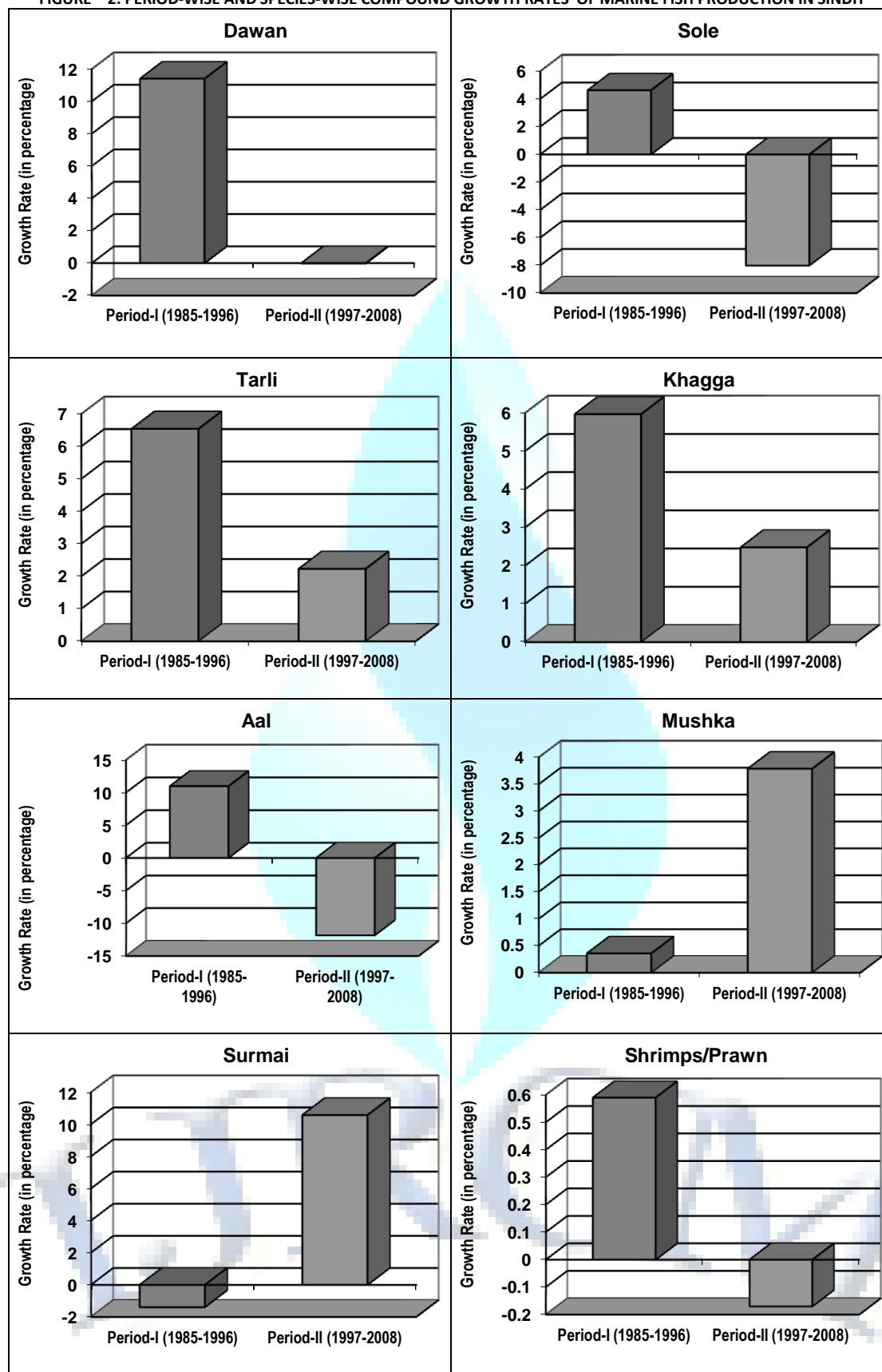
TABLE – 6: PERIOD-WISE AND SPECIES-WISE COMPOUND GROWTH RATES OF MARINE FISH PRODUCTION IN SINDH (Percent per annum)

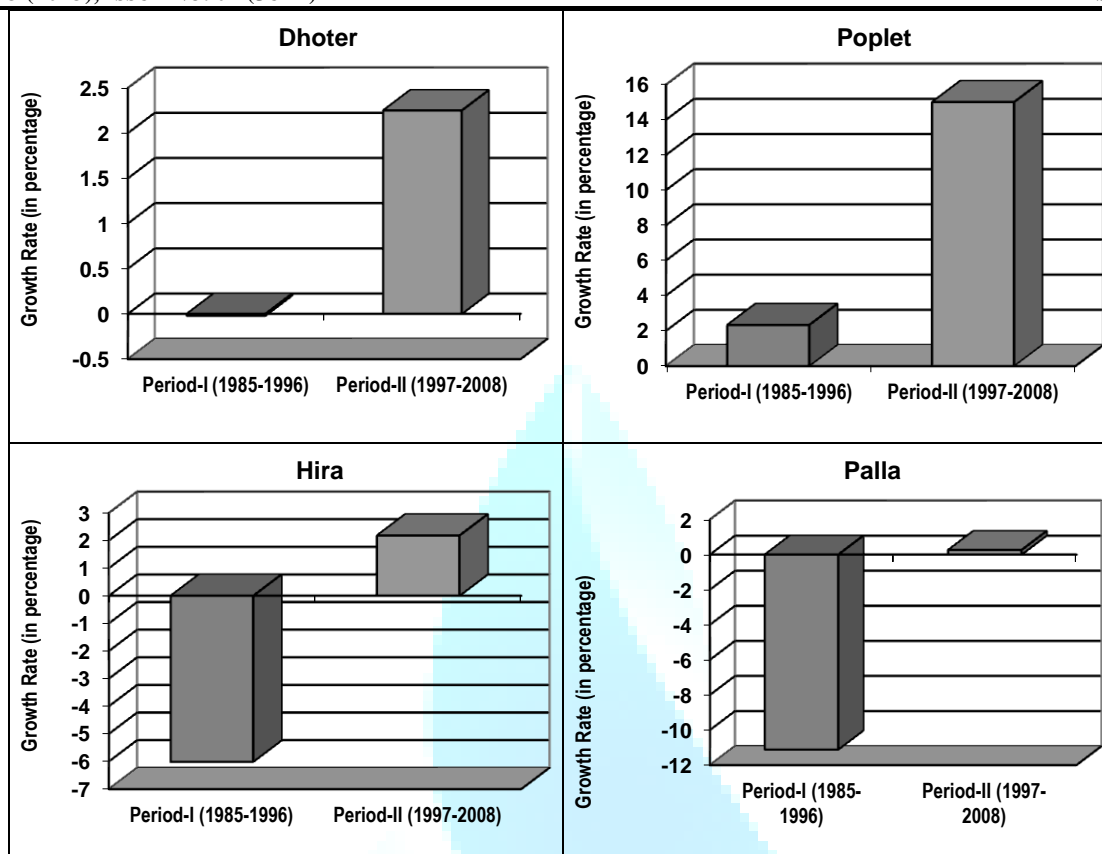
Marine Fish Species	Period-I (1985-1996)	Period-II (1997-2008)
Dawan	11.41 (2.05)**	-0.02 (0.02)
Sole	4.63 (3.09)*	-8.01 (5.73)*
Mangra	9.14 (4.90)*	-21.11 (11.12)*
Pitton	5.11 (3.73)*	-3.48 (3.02)*
Tarli	6.54 (3.21)*	2.23 (1.16)
Khagga	5.97 (1.58)***	2.48 (3.31)*
Aal	10.98 (5.33)*	-11.83 (8.86)
Mushka	0.36 (0.18)	3.79 (2.45)**
Surmai	-1.39 (0.89)	10.58 (8.06)*
Shrimps/Prawn	0.59 (0.85)	-0.17 (0.17)
Dhoter	-0.02 (0.001)	2.25 (4.52)*
Poplet	2.34 (2.21)**	15.01 (6.67)*
Hira	-6.01 (2.20)**	2.18 (2.27)**
Palla	-11.11 (8.25)*	0.26 (0.08)

Source: Figures in parentheses indicate 't' values.

*, **, *** Significant at 1, 5 and 10 percent level of significance respectively.

FIGURE – 2: PERIOD-WISE AND SPECIES-WISE COMPOUND GROWTH RATES OF MARINE FISH PRODUCTION IN SINDH



**PERIOD-I**

During this period the production of dawan increased at the rate of 11.41 percent, sole at 4.63 percent, mangra at 9.14 percent, pittan at 5.11 percent tarli at 6.54 percent, khagga at 5.97 percent aal at 10.98 percent and poplet at 2.34 percent while that of hira and palla decreased at 6.01 percent and 11.11 percent per annum. It means that in Period I the problem of over fishing was not indicated. The coefficient of sole, mangra, pittan, tarli, palla and aal are significant at 1 percent level of significance, dawan, hira and poplet at 5 percent level of significance and khagga at 10 percent level of significance. Other species like mushka, surmai, shrimps/prawn, dhotar increased or decreased but the values are insignificant. The major conclusion that emerges from this period is that out of fourteen species eight species shows significant positive growth.

PERIOD-II

As shown in Table 6 and Figure 2 between 1997-2008, while the growth of sole, mangra, pittan, khagga, and aal, decelerated from 4.63 percent, 9.14 percent, 5.11 percent, 5.97 percent and 10.98 percent to -8.01 percent, -21.11 percent, -3.48 percent, 2.48 percent, -11.83 percent per annum respectively, that of mushka, surmai, dhotar, poplet and hira accelerated from 0.36 percent, -1.39 percent, -0.02 percent, 2.34 percent and -6.01 percent to 3.79 percent, 10.58 percent, 2.25 percent, 15.01 percent and 2.18 percent respectively per annum. The major conclusion is that out of fourteen species five species namely mushka, surmai, dhotar, poplet and hira growth significantly increased while that of sole, mangra, pittan, khagga, and aal growth rate significantly decreased. The declining growth rate of sole, mangra, pittan, and aal clearly indicates the problem of over fishing. As an ecological problem, the problem of over fishing is indicated when total catch size of any species decreases. The problem of over fishing is apparently far more serious in Sindh province because Sindh coast is suitable for trawling. However, the same problem may arise if number of vessels continues to grow as rapidly as they have increased over the past decade.

The causative factors of over fishing are:

1. Increase in number of fish vessels
2. Deep sea trawling
3. Increase in the population of fisheries communities
4. Harmful nets

CONCLUSION

The analysis of specie-wise marine fish production growth is done for two different periods of Sindh. Period I from 1985 to 1996 and Period II from 1997 to 2008. The study confirms that in Period I the coefficients of sole, mangra, pittan, tarli, palla, aal, dawan, hira, poplet and khagga are positively and statistically significant mainly due to proper stock assessment of marine resources, research and development programmes, control fishing, and complete ban on illegal nets. Out of fourteen species eight species shows significant positively growth. Other species like mushka, surmai, shrimps/prawn, and dhotar are statistically insignificant. The study also reveals that in Period II out of fourteen species five species namely mushka, surmai, dhotar, poplet and hira growth significantly increased while that of sole, mangra, pittan, khagga and aal growth rate significantly decreased. The declining growth rate of mangra, sole, pittan and aal clearly indicates the problem of over fishing.

POLICY IMPLICATIONS

The study reveals that in Period II the growth rate of species like sole, mangra, pittan, khagga and aal significantly declined. Therefore in order to increase the production growth rate of the above species, over fishing needs to be eliminated through comprehensive fisheries policy of Sindh government, research and development programme, complete ban on illegal nets, easy credit facilities to fisherman, reducing post-harvest losses through the upgradation of vessels, upgradation of fish harbours, proper marketing and cold-storage facilities.

In order to have a sound National Fisheries Policy the government should take the following necessary measures to increase marine fish production.

At harvesting site, some immediate steps should be taken to protect marine fisheries resources. These are revival of marine resources, ban on illegal nets through the establishment of fishing police force. Areas, where there is heavy fishing pressure have to be identified and alternative employment opportunities should be created through job-oriented training programs and with the formation of Fishermen's Bank. Credit facilities and subsidy on diesel prices should be provided to fishermen, so that it can be viable for them to make trips for fishing purpose. As fish is perishable commodity, quick handling, proper transportation

and storage is must. For this purpose the government should provide infrastructure facilities such as fish landing, handling, marketing facilities, and a reliable supply of electricity and fresh water.

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GOVERNMENT EXPENDITURE AND ECONOMIC GROWTH IN ASEAN-5: LONG-RUN TENDENCIES AND SHORT-TERM ADJUSTMENT

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ABSTRACT

A question of whether the government should intervene to correct for short-run fluctuations in economic activity has always been an interesting topic for economists. This paper investigates the impact of government expenditure on the economic growth in ASEAN-5 countries during 1980-2006 by using Pooled Mean Group. To examining both short run and long run effects, findings demonstrate that a large government expenditure influences the economic growth of countries negatively. This negative impact may be a sign of the lower productivity of the capital input in ASEAN-5 economies with a large government expenditure.

KEYWORDS

Pooled Mean Group (PMG), government expenditure, economic growth, ASEAN-5

JEL CLASSIFICATION

H59, O11, O53, C23

1. INTRODUCTION

There has been much debate on the role and the expenditure of government interference in the macroeconomic outlook throughout countries. As a result, governments attempt to stimulate economic growth through different instruments. Public expenditure has traditionally been a component of fiscal policy which is an instrument of the state to influence economic growth. Several models of government investment and growth have been designed to investigate the relation between government expenditure and economic growth.

Some empirical studies had evaluated impact of government expenditure on economic growth as like as Feder (1983), Landau (1983), Ram (1986), Grier and Tullock (1989), Romer (1990), Barro (1990, 1991), Levine and Renelt (1992), Devarajan *et al.* (1996), and Sala-i-Martin (1997). Most of the above studies used cross-section analysis to link measures of government spending with economic growth and produced varied evidence; the most common results show that government expenditure positively effect on economic growth (Abu-Bader & Abu-Qarn, 2003).

According to traditional Keynesian model, the expansion of government size may resist a recession. However, some works have an ongoing debate on the effects of government size on economic growth. Landau (1983), Engen and Skinner (1992), Folster and Henrekson (2001), and Dar and AmirKhalkhali (2002) find a negative relationship between government expenditure and economic growth. They believe that expanding government expenditure decreases return of government expenditure and over-expanding government expenditure will cause a crowded effect to private investment. In addition, government expenditure often goes to inefficient expenditure, which will cause a distorted allocation to the resource. When government expenditure raise, a government needs more taxes to support the expenditure, but expanding taxes will harm the economy (Chen & Lee, 2005). For the inconsistency of the above result, Vedder & Gallaway (1998) and Sheehy (1993) point out that the reason is that government expenditure and economic growth exist under a non-linear relationship.

On the contrary, when evaluating government expenditure patterns among Asian developing countries no clear trend can be recognized. This can be partially explained by the diverse assumptions of market forces implemented in these countries. In addition, a variety of government regimes are recognized which reflect the different roles of the State in different Asian developing countries (Sobhan, 1993). The main distinction is that the objective of government expenditure in developing countries is solely focused on economic expansion instead of maintaining the current level of economic wealth.

In addition, some researchers conclude that a significant positive relationship between government expenditure and economic growth is found only for developing nations but not for under-developed or developed nations (Gandhi, 1991; Ganti and Kolhuri, 1979; Murthy, 1993; Bairam, 1995).

This paper builds on the existing literature studying the long-term determinants of government expenditure and makes a step forward in two respects. First, there is an attempt to better disentangle cyclical from structural factors affecting the relation between government expenditure and GDP. Second, the panel dimension of the data set is exploited in such a way:

- (i) To improve the power of statistical tests for the analysis of the dynamic properties of macroeconomic series through panel unit root and cointegration tests;
- (ii) To obtain country-specific information on adjustment dynamics by means of pooled mean group estimation.

The aim of this paper is to examine the growth-government expenditure relationship in ASEAN-5 the twenty seven year period (1980 – 2006). The objective is to explore the determinants of the economic growth in ASEAN-5 and specifically to further investigate the impact of government expenditure on economic growth in ASEAN-5 during the period from 1980 through 2006 by using Pooled Mean Group (PMG) and Mean Group(MG) estimator s introduced by Pesaran, Smith, and Im (1999).

The paper is organized as follows. The next section provides theoretical framework. Section 3 describes the econometric methodology and data used for empirical analysis and section 4 proceeds to the empirical results. Finally, section 5 provides a summary of the empirical findings along with concluding remarks.

2. THEORETICAL FRAMEWORK

Government spending is particular interest in this work among the factors that determine the growth of an economy. While the Keynesian approach suggests fiscal policies to boost economic activity in times of recessions, the Classical economists oppose the government intervention. Classical economists believe that market forces quickly bring the economy to long-run equilibrium through adjustment in the market while Keynesians argue that the self-regulating mechanisms

in the economy fail to lead the economy back to equilibrium mainly due to inflexibility in the market. Thus, Keynesians suggest expansionary fiscal policies as a solution for long recessions. Classical and Neoclassical believe fiscal policies ineffective on the grounds of the well-known crowding-out phenomenon, i.e., as public spending increases, public goods are substituted for private goods, thus causing lower private spending on education, health, transportation, and other goods and services. In addition, in a case that governments use heavily borrowing to fund spending, pressures in the credit market result in higher interest rates, which slow down private investment. The subject that government spending enhances economic growth has supported by the introduction of new growth theories. Dissimilar with the neoclassical growth model don't suggest the channels through which fiscal policy may have positively effect on long-run economic growth. The new growth theorists such as Romer (1986) and Lucas (1988) suggest that there is both a temporary effect from government expending and a possible long-run influence from fiscal policy on growth.

Many empirical works of growth has used the Solow growth accounting approach as foundation model (Solow, 1956). The Solow model includes two important subjects about long run growth. First, "exogenous technological change" effects on output, and secondly, nations will converge in terms of income per capita. Accordingly, because all growth sources are exogenous, government policy cannot change long run growth rates. Unlikely, The endogenous growth models provided by Romer (1986) and Barro (1990) indicate that long-run growth is endogenous in the sense of some endogenous variables. Therefore, long-run growth rates can differ across countries, and there is no convergence in income per capita necessarily.

This paper uses a generalization model of the commonly used growth-accounting model based on the concept of an aggregate production function. It is developed along the works suggested in Dar & AmirKhalkhali (2002). Accordingly, the standard growth accounting model can be written as:

$$\ln Y_{it} = \alpha_2 \ln K_{it} + \alpha_3 \ln L_{it} + A_{it} \quad (1)$$

Where Y stands for GDP, K for capital accumulation, L for the labor, and A measures total factor productivity growth. Note that α_2 and α_3 are the partial elasticity of output with respect to capital and labor, respectively. The subscript i indexes the countries and the subscript t indexes the time in the sample. It has assumed that export and government expenditure enhance total factor productivity growth and, by implication, economic growth. Accordingly, equation (2) has written as:

$$A_{it} = \alpha_1 + \alpha_4 \ln X_{it} + \alpha_5 GS_{it} + u_{it} \quad (2)$$

Where X stands for export, GS gives the ratio of government expenditure over GDP, and u is the disturbance term. Finally, substituting (2) in (1) yields:

$$\ln Y_{it} = \alpha_1 + \alpha_2 \ln K_{it} + \alpha_3 \ln L_{it} + \alpha_4 \ln X_{it} + \alpha_5 GS_{it} + u_{it} \quad (3)$$

3. RESEARCH METHODOLOGY AND DATA

The data set consist of observation for five countries in ASEAN in the period of 1980-2006. The lists of countries are as follow: Indonesia, Malaysia, the Philippine, Singapore, and Thailand. The annual data in term of natural logs for all variables are used. Real GDP per capita has selected as proxy with economic growth. The explanatory variables are namely K (capital, which is measured as the gross capital formation), L (labor, which is measured by Labor force participation rate, percentage of total population ages 15-64), X (export is measured by exports of goods and services, percentage of GDP), and GS (government expenditure is measured by ratio general government final consumption expenditure over GDP). All of data have obtained from World Development Indicator (WDI, World Bank CD-ROM 2008).

For using pooled data methods, we can consider to number of alternative methods that differ on the point to which method allows for constraining of heterogeneity across individuals. Fully heterogeneity and fully homogeneity are in two extremes of the methods. The simple pooled estimator is at one extreme that models are the fully homogeneous-coefficient and all slope and intercept coefficients be equal across countries. There are some other estimators between the two extremes such as Dynamic Fixed Effects (DFE) estimator contains all slope coefficients to be equal across individuals but different intercepts. The Mean Group (MG) estimator introduced by Pesaran *et al.* (1995) is at other extreme that models are fully heterogeneous coefficient. Moreover, Pesaran *et al.* (1999) introduce Pooled Mean Group (PMG) estimator. In PMG model, the long-run slope coefficients are identical across individuals but the short-run coefficients and the regression intercept are varied.

Following Pesaran *et al.* (1999), paper bases the panel analysis on the unrestricted error correction ARDL (p, q) representation:

$$\Delta Y_{it} = \phi_i Y_{i,t-1} + \beta_1 K_{i,t-1} + \beta_2 L_{i,t-1} + \beta_3 X_{i,t-1} + \beta_4 GS_{i,t-1} + \sum_{j=1}^{p-1} \theta_{ij} \Delta Y_{i,t-j} + \sum_{j=0}^{q-1} \delta_{ij} \Delta K_{i,t-j} + \sum_{j=0}^{q-1} \gamma_{ij} \Delta L_{i,t-j} + \sum_{j=0}^{q-1} \varphi_{ij} \Delta X_{i,t-j} + \sum_{j=0}^{q-1} \sigma_{ij} \Delta GS_{i,t-j} + \mu_i + u_{it} \quad (4)$$

Where μ_i represents the fixed effects, ϕ_i is a coefficient on the lagged dependent variable, $\beta_1, \beta_2, \beta_3$, and β_4 are coefficients on lagged explanatory variables, θ_{ij} is coefficient on lagged first-differences of dependent variable, and $\delta_{ij}, \gamma_{ij}, \varphi_{ij}$, and σ_{ij} are coefficients on first-difference of explanatory variables and their lagged values. The model assumes that the disturbances u_{it} in the ARDL model has independently distributed across i and across t with zero mean and variance is positive ($\sigma^2_{u_i} > 0$). Further assuming that coefficients on first-difference of explanatory variables are less than zero therefore, there exists a long-run relationship between dependent and explanatory variables defined by:

$$Y_{it} = \omega_1 K_{it} + \omega_2 L_{it} + \omega_3 X_{it} + \omega_4 GS_{it} + \eta_{it} \quad (5)$$

Where $\omega_1, \omega_2, \omega_3$, and ω_4 as long-run coefficients, and η_{it} are stationary with possibly non-zero means (including fixed effects). Since equation (4) can be rewritten as:

$$\Delta Y_{it} = \phi_i \eta_{i,t-1} + \sum_{j=1}^{p-1} \theta_{ij} \Delta Y_{i,t-j} + \sum_{j=0}^{q-1} \delta_{ij} \Delta K_{i,t-j} + \sum_{j=0}^{q-1} \gamma_{ij} \Delta L_{i,t-j} + \sum_{j=0}^{q-1} \varphi_{ij} \Delta X_{i,t-j} + \sum_{j=0}^{q-1} \sigma_{ij} \Delta GS_{i,t-j} + \mu_i + u_{it} \quad (6)$$

Where $\eta_{i,t-1}$ is the error correction term given by equation (5), hence coefficients on first-difference of explanatory variables are the error correction coefficients for measuring the speed of adjustment towards the long-run equilibrium. As explained above, the PMG estimator allows the intercepts, short-run coefficients and short-run adjustment to be dependent on country/individual characteristics with meaning differ across groups, but the long-run coefficients are homogeneous across countries/individuals. However, the MG allows for heterogeneity of all the coefficients and gives the estimation of short-run and long run coefficients. The MG approach comprises of estimating regressions for all countries/individuals separately and computing averages of the countries/individual-specific coefficients. The comparison of PMG and MG is like a trade-off between consistency and efficiency. If the long-run coefficients are identical across individual/countries the PMG estimator will be consistent and efficient and the MG estimator will only be consistent. If the long-run coefficients are not identical across individual/countries the PMG estimator will be inconsistent and the MG estimator will provide a consistent estimation of the mean of long-run coefficients across individual/countries. The long-run homogeneity restrictions or presence of heterogeneity in the means of the coefficients can be examined using Hausman test (Hausman, 1978) applied to the difference between the PMG and MG estimators of the long-run coefficients (Demetriades & Law, 2006).

This study uses above framework to examine the relationship of government expenditure and economic growth in ASEAN countries. Table 1 reports summary statistics of the variables used in the analysis and table 2 reports the correlation results.

TABLE 1: DESCRIPTIVE STATISTICS

Variable	LG	LK	LL	LGS	LX
Index					
Mean	2.93	3.31	4.20	2.36	3.79
Median	3.00	3.33	4.20	2.37	3.87
Maximum	3.31	3.88	4.27	2.88	5.28
Minimum	0.00	2.43	4.12	1.74	2.22
Std. Dev.	0.37	0.29	0.03	0.21	0.84
Skewness	-4.81	-0.27	-0.33	-0.16	-0.26
Kurtosis	33.74	2.77	3.05	3.09	1.80

All variables are included as log (variable)

TABLE 2: CORRELATION AMONG VARIABLES

Variable	LG	LK	LL	LGS	LX
LG		0.39	-0.09	0.22	-0.02
LK	0.39		-0.34	0.11	-0.23
LL	-0.09	-0.34		-0.51	0.53
LGS	0.22	0.11	-0.51		-0.21
LX	-0.02	-0.23	0.53	-0.21	

4. EMPIRICAL RESULTS & DISCUSSION

Tables 3 show results of pooled OLS estimation with and without dummy variable for financial crisis that had happened in Asia. Breusch and Pagan Lagrangian Multiplier (LM) test will help us to choose between pooled OLS model and Random Effect Model (REM). LM is distributed as chi-squared with one degree of freedom under the null hypothesis. The calculated value (LM= 1.207) does not exceed the tabulated chi-squared value (124.34) therefore it lead us to conclude that OLS (pooled model) is more appropriate than the random effect or fixed effect models. The result of pooled OLS estimation suggests that model with government expenditure; physical capital and export variables promote economic growth.

Table 4 includes three alternative panel data estimators: MG, which imposes no restrictions; PMG, which imposes common long-run effects and static fixed effect models and Static Fixed Effect. The result in tables 4 is based on lagged one for the independent variables (The lag structure in tables 4 is (1,0,0,0,0) and the order of variables is as follows: dependent variable, K, L, GS and X), but the lag structure in Tables 6 is based on AIC and SBC respectively.¹

TABLE 3: POOLED OLS ESTIMATION WITH (OUT) USING DUMMY VARIABLE FOR YEAR 1998

Variable	Estimation without Dummy Variable		Estimation with Dummy Variable	
	Coefficient	Prob.	Coefficient	Prob.
Constant	-7.60	0.16	-3.14	0.42
GS	0.46	0.01	0.34	0.01
K	0.54	0.00	0.43	0.00
L	1.80	0.14	0.87	0.33
X	0.02	0.57	0.06	0.03
Dummy variable	-	-	-1.23	0.00

TABLE 4: GOVERNMENT EXPENDITURE AND ECONOMIC GROWTH IN ASEAN-5 BY POOLED OLS, MG AND SFE [Lag structure (1, 0, 0, 0, 0)]

Variables	Pooled Mean Group	Mean group	Static Fixed Effect
K	-4.35(-2.11)**	-3.55(-0.96)	-1.36(-4.43)***
L	9.22(1.77)*	5.48(2.11)**	0.36(1.83)*
X	13.47(0.95)	12.54(1.31)	0.18(0.07)
GS	-5.20(-2.21)**	-5.20(-1.30)	-1.26(-2.78)***

Numbers in parenthesis are standard error except for Hausman tests, which are t-values.

***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

TABLE 5: THE SHORT-RUN EFFECT OF GOVERNMENT EXPENDITURE ON ECONOMIC GROWTH IN ASEAN COUNTRY BY COUNTRY

Country	Variables	Pooled Mean Group	Group-Specific Estimates
Indonesia	K	-0.04(-1.73)*	0.15(1.36)
	L	0.08(2.20)**	0.08(1.87)*
	X	0.12(0.79)	0.74(0.71)
	GS	-0.05(-1.39)	-0.36(-1.87)
	Phi	-0.00(-1.36)	-0.02(-0.41)
Malaysia	K	-0.15(-2.54)**	-0.14 (-1.92)**
	L	0.32(4.89)***	0.29(4.15)***
	X	0.46(0.84)	4.13(1.86)*
	GS	-0.18(-1.74)*	-0.60(-3.12)***
	Phi	-0.03(-1.18)	-018(-2.53)**
Philippine	K	-0.04(-0.99)	-0.17(-1.14)
	L	0.08(1.03)	-0.08(0.79)
	X	0.12(0.67)	1.39(0.54)
	GS	-0.04(-0.93)	0.60(1.84)*
	Phi	-0.00(-0.91)	-6.42(-0.58)
Singapore	K	-0.18(-3.42)***	-0.36(-3.91)***
	L	0.38(6.55)***	0.42(5.88)***
	X	0.56(0.84)	1.14(-1.25)
	GS	-0.21(-2.20)**	-0.05(-3.36)***
	Phi	-0.04(-1.90)*	-0.06(-1.88)*
Thailand	K	-0.06(-2.00)**	-0.17(-1.36)
	L	0.13(2.69)***	0.16(2.78)***
	X	0.19(0.91)	0.25(0.18)
	GS	-0.07(-1.66)*	-0.57(-2.19)**
	Phi	-0.01(-1.74)*	-0.01(-0.17)

Numbers in parenthesis are standard error except for Hausman tests, which are t-values.

***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

The comparison between MG and PMG is based on the Hausman test. Because of the time span of the panel data is only 27 years (1980 - 2006), the MG estimator suffers from too few degrees of freedom. The Hausman test statistic fails to reject the null hypothesis which indicates the data do not reject the restriction of common long-run coefficients. Hence, the MG estimator is not useful like the PMG estimator. Therefore we focus on the PMG results.

¹. These estimations have done by using the GAUSS program written by Shin, Y (Department of Economics, University of Edinburgh)

These results reveal that the signs of the long-run coefficients do not remain similar to those obtained by OLS and do not consistent with Keynesian theory mutually. The OLS result consists with Keynesian theory but the result are different from PMG estimation. In long run, the coefficients of physical capital and government expenditure are negative sing and statistically significant. The negative sign of coefficient of government expenditure consists with some studies such as Dar and Amirkhalkhali (2002) that find a negative relationship between government expenditure and economic growth. The static fixed effect estimator also demonstrates same result. However, in short-run, the coefficient of government expenditure in level is positive and significant, but that coefficient in first difference is negative and insignificant.

TABLE 6: THE EFFECT OF GOVERNMENT EXPENDITURE ON ECONOMIC GROWTH IN ASEAN-5 COUNTRIES (Long-run coefficients)

Dep. variable: Y	AIC for lag structure				SBC for lag structure			
	Mean group	Pooled mean group	Hausman test	Static Fixed Effect	Mean group	Pooled mean group	Hausman test	Static Fixed Effect
Long-run coefficients								
K	-377.36 (-1.01)	-1.29 (-2.31)**	1.02 (0.31)	-1.36 (-4.43)***	-377.38 (-1.01)	17.89 (0.34)	1.14 (0.28)	-1.36 (-4.43)***
L	672.95 (1.00)	3.40 (4.01)***	0.99 (0.32)	0.36 (1.89)*	672.63 (1.00)	-43.78 (-0.38)	1.17 (0.28)	0.36 (1.89)*
X	-4099 (-1.00)	32.49 (4.59)***	1.02 (0.31)	0.18 (2.50)**	-4093 (-1.00)	20.50 (0.39)	1.12 (0.29)	0.18 (2.50)**
GS	383.04 (0.99)	-1.99 (-2.20)**	1.00 (0.30)	-1.26 (-2.78)***	383.20 (0.99)	-26.43 (-0.44)	1.16 (0.28)	-1.26 (-2.78)***
No. of countries	5	5		5	5	5		5

Numbers in parenthesis are standard error except for Hausman tests, which are p-values.

***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

TABLE 7: THE EFFECT OF GOVERNMENT EXPENDITURE ON ECONOMIC GROWTH IN ASEAN COUNTRIES (Error correction coefficients and Short-run coefficients)

Convergence coefficient	0.04 (2.04)**	0.07 (-0.78)
Long-run coefficients		
K	-0.07 (-2.04)**	0.03 (0.17)
L	0.17 (2.04)**	0.10 (0.86)
X	-0.80 (-2.04)**	3.92 (1.80)*
GS	0.10 (2.04)**	0.25 (0.98)
Short-run coefficients		
Δ GDP(-1)	0.00	0.00
Δ K	-0.04 (-1.00)	-0.14 (-1.00)
Δ K(-1)	-0.02 (-1.00)	-0.04 (1.00)
Δ L	0.02 (1.00)	0.05 (1.00)
Δ L(-1)	0.02 (1.00)	0.04 (1.00)
Δ X	-0.12 (-0.10)	-2.96 (1.68)*
Δ X(-1)	-1.65 (-1.60)	-3.27 (-1.63)
Δ GS	-0.22 (-1.38)	-0.29 (-1.19)
Δ GS(-1)	-0.23 (-1.48)	-0.22 (-1.48)

***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

5. SUMMERY AND CONCLUSION

Interest in economic growth has always been at the center of the literature in development economics and it is one of the most fascinating topics in macroeconomics. Among the factors that determine the growth of an economy, government spending is of particular interest in this work. A subject of intense debate for economists has been whether the government should intervene to correct for short-run fluctuations in economic activity. While the Classical economists oppose intervention, the Keynesian school of thought advocates the use of fiscal policies to boost economic activity in times of recessions.

This paper investigates the impact of government expenditure on economic growth in ASEAN countries during 1980 -2006. Working with a panel of cross-country observations, the paper estimates a model of short and long-run effects using the Pooled Mean Group estimator developed by Pesaran, Shin, and Smith (1999). However, the result of pooled OLS estimation suggests that the variables including government expenditure, physical capital, and export promote economic growth, but the signs of government expenditure and capital in PMG estimation do not remain similar to those obtained by OLS and as a result, do not consistent with Keynesian theory mutually.

Consequently, our findings suggest that a larger government expenditure on ASEAN countries influences economic growth negatively. This negative impact may be a sign of the lower productivity of the capital input in ASEAN countries with a large government expenditure. The disadvantage of a large government sector, in general, likely reflects the presence of crowding-out effects that causes weak incentives to create more productive capital, which need new technologies. Accordingly, the governments should set the expenditure of government expenditure in term of providing the governance infrastructure critical for growth.

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AN ASSESSMENT OF COMPETITIVE STRATEGIES ADOPTED BY COMMERCIAL COLLEGES IN NAIROBI, KENYA IN IMPROVING THEIR ENROLMENT CAPACITY

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ABSTRACT

The study's main objective was to assess the various competitive strategies that commercial/private colleges in Nairobi Central Business District in Kenya adopted to enhance their student enrolments. There were 96 colleges then, from which the researcher used proportional stratified random sampling method to select 32. The findings from the study show that each college had well intentioned strategies aimed at making their products and services pervasive in the Kenyan Market and abroad. The academic and professional courses offered were partly tailored to suit the intended market's financial ability and differentiated to introduce modernity and partly considered a specific target market. The independent strategies used by different institutions indicated a solid presence of Porter's generic strategies with significant variations in their adoption.

KEYWORDS

Competitive strategies, competitive edge, core competencies, sustainable competitive advantage.

INTRODUCTION

Many businesses today operate under very turbulent and dynamic environments. The intensity of business rivalry and the turbulent changes facing them coupled with emergence of more matured, better informed and more discriminating customers have pushed the boundaries of organizations to compete at the highest level with the primary focus of becoming the dominant player in the market in which they operate. Competition poses many challenges to any business and managers must formulate strategies to counter those challenges and strive to attain a competitive edge over their rivals in all areas of operation. In order to attain and maintain a sustainable competitive advantage, organizations regularly develop competitive strategies. The most commonly adopted competitive strategies are the porter's generic competitive strategies. With the introduction of liberalization in Kenya (Government of Kenya, 1986), firms in almost all sectors of the economy are faced with competition. Liberalization primarily involves a movement towards less control of factor markets and commodity markets. Liberalization has led to stiff competition in many sectors including the education sector and this has prompted institutions to devise and adopt responsive strategies in order to remain relevant.

LITERATURE REVIEW

Competition refers to rivalry between companies to achieve greater market share. It is a process of rivalry between firms which takes the form of contests within existing markets (intra-industry competition), and the form of potential entry into new areas (inter-industry competition). Competition includes rivalry in terms of price, but also in terms of altered or improved techniques of production or products, and in terms of the provision of information to consumers about products.

A company's competitive strategy consists of the business approaches and initiatives it undertakes to attract customers and fulfill their expectations, to withstand competitive pressures and to strengthen its market position (Johnson and Scholes, 1997). Competitive strategies provide framework for the firm to respond to the various changes within its operating environment. Competitive strategy is the search for a favorable competition in an industry, the fundamental arena in which competition occurs. It aims at establishing a profitable and sustainable position against the forces that determine industry competition (Porter, 1998). A company has competitive advantage whenever it has an edge over its rivals in securing customers and defending against competitive forces (Thompson & Strickland, 2002). Sustainable competitive advantage is borne out of core competencies that yield long-term benefits to the company (Prahalad & Hamel, 1990). According to Prahalad and Hamel, a core competence has three characteristics; it provides access to wide variety of markets, it increases perceived customer benefits and it's difficult for customers to imitate. To succeed in building a sustainable competitive advantage a firm must try to provide what buyers will perceive as superior value. This entails either good quality product at a lower price or a better quality product that is worth paying more for.

CORPORATE VERSUS COMPETITIVE STRATEGY

Corporate strategy defines the markets and the businesses in which a company will operate. Competitive or business strategy defines for a given business the basis on which it will compete. Corporate strategy is typically decided in the context of defining the company's mission and vision, that is, saying what the company does, why it exists, and what it is intended to become. Competitive strategy hinges on a company's capabilities, strengths, and weaknesses in relation to market characteristics and the corresponding capabilities, strengths, and weaknesses of its competitors.

ANALYZING THE COMPETITIVE ENVIRONMENT

Porter (1991), has built a framework to allow for the analysis of competition within a particular industry. Much of his approach builds on the work of Edward H Chamberlin, also of Harvard University, and Joan Robinson, of Cambridge University, who were pioneer analysts of non-price competition in the 1930's. At the heart of Porter's work is what economists refer to as the Structure-Conduct-Performance paradigm. To understand the competitive pressures of an industry one needs to focus upon its structure - its underlying economics.

FIGURE 1: STRUCTURE-CONDUCT-PERFORMANCE PARADIGM



Source: porter (1991)

The underlying economics include such factors as the numbers of competitors and how easy it is for firms to enter or leave the industry. For example, if there are lots of competitors, who can enter or leave the industry easily, who sell similar products and who are fully informed of each other's strategies, then it is unlikely in the long term that any firm will make massive profits. The competitive process will ensure that prices and profits are reduced. In contrast, if there is only one firm in the industry and entry into the industry is difficult, the profits are likely to remain high, unless customers find alternatives to the product (Porter, 1980).

Porter goes on to argue that firms who come up with better strategies than their competitors, by understanding and exploiting the conditions of the industry better than others, might be able to achieve a more profitable position in the long term – This he refers to as sustainable competitive advantage. According to Porter, whether an industry produces a commodity or a service, or whether it is global or domestic in scope, competition depends on five forces. These forces, which go beyond the immediate competitors in the industry are: the threat of new entrants; the existence of substitute products or services; the bargaining power of suppliers; the bargaining power of customers or buyers and existing rivalry within the industry. These five forces determine the ultimate profit potential of an industry as a whole.

Within an industry, individual firms who develop particular strengths may be able to gain competitive advantage whatever the profit position of the industry as a whole is. The ultimate strength of competition in an industry depends on the collective strength of these forces. Assessing each of the competitive forces in turn, by identifying the structural factors which are significant in each case, will allow an understanding of the dynamics of the industry. As well as providing an insight into dynamics of the industry, this approach also allows individual companies to understand the directions from which they face the greatest competitive pressures - and tailor their strategies to meet these pressures.

MICHAEL PORTER'S GENERIC STRATEGIES

For an organization to obtain a sustainable competitive advantage Michael Porter suggested that they should follow either one of three generic strategies (Thompson & Strickland, 2003).

COST LEADERSHIP

This strategy involves the organization aiming to be the lowest cost producer within their industry. The organization aims to drive cost down through all the elements of the production of the product from sourcing, to labour costs. The cost leader usually aims at a broad market, so sufficient sales can cover costs. Some organizations may aim to drive costs down but will not pass on these cost savings to their customers aiming for increased profits clearly because their brand can command a premium rate.

To be successful, this strategy usually requires a considerable market share advantage or preferential access to raw materials, components, labour, or some other important input. Without one or more of these advantages, the strategy can easily be mimicked by competitors. Successful implementation also benefits from process engineering skills, sustained access to inexpensive capital, close supervision of labour, tight cost control and Incentives based on quantitative targets.

DIFFERENTIATION

To be different, is what organizations strive for. Having a competitive advantage which allows the company and its products ranges to stand out is crucial for their success. With a differentiation strategy the organization aims to focus its effort on particular segments and charge for the added differentiated value. New concepts which allow for differentiation can be patented; however patents have a certain life span and organization always face the danger that their idea that gives the competitive advantage will be copied in one form or another. To maintain this strategy the firm should have strong research and development skills, strong product engineering skills, strong creativity skills, good cooperation with distribution channels, strong marketing skills, incentives based on subjective measures, ability to communicate the importance of the differentiating product characteristics, continuous improvement and innovation and ability attract highly skilled, creative people.

NICHE / FOCUS STRATEGIES

Here the organization focuses its effort on one particular segment and becomes well known for providing products/services within the segment. They form a competitive advantage for this niche market and either succeeds by being a low cost producer or differentiator within that particular segment. With both of these strategies the organization can also focus by offering particular segments a differentiated product/service or a low cost product/service. The key is that the product or service is focused on a particular segment. The firm typically looks to gain a competitive advantage through effectiveness rather than efficiency. It is most suitable for relatively small firms but can be used by any company. As a focus strategy it may be used to select targets that are less vulnerable to substitutes or where a competition is weakest to earn above-average return on investments.

'STUCK IN THE MIDDLE'

The danger some organizations face is that they try to do all three and become what is known as stuck in the middle. They have no clear business strategy, be all to all consumers, which adds to their running costs causing a fall in sales and market share. 'Stuck in the middle' companies are usually subject to a takeover or merger.

FIGURE 2: PORTERS GENERIC STRATEGIES



Source: www.learnmarketing.net

Source: Thompson & Strickland, 2003

CHALLENGES ENCOUNTERED IN IMPLEMENTATION OF STRATEGIES

In the implementation of competitive strategies certain challenges may hinder effective utilization of strategies identified and employed. There are three main types of competitive challenges that may hamper a firm's ability to grasp new opportunities. These are financial requirements, regulatory issues imposed by government and the industry and the ability of the company owners or managers (Newman, 1989). Other challenges may arise from structural and economic barriers inherent in the industry. Firms face such challenges as inadequate financial resources, inadequate skills and inability of staff, inadequate marketing

abilities, changes in customer needs, government requirements and complexity of coordinating a firm's activities in pursuit of the agreed strategy (Porter, 1980). The real challenge in implementation of generic strategy is in recognizing all supportive activities and putting them in place properly (Box and Watts 2000). Porter points out that operational effectiveness though necessary is not sufficient to bring about competitive advantage and concludes by arguing that achieving competitive advantage means adopting the appropriate generic strategy and implementing the strategy with a network of supportive activities.

The most important fits are between strategy and organizational capabilities, between strategy and reward structures between strategy and internal support systems and between strategy and organizational culture. Fitting the organization's internal practices to what is needed for strategic success helps unite the organization besides the accomplishment of strategy.

Strategy implementation cuts across all facets of managing and must be initiated from many points inside the organization (Thompson and Strickland, 2003)

SIGNIFICANCE AND OBJECTIVES OF THE STUDY

The main objective of the study was to assess the competitive strategies that commercial colleges adopt to improve their enrolment capacity in the Kenyan market.

THE SPECIFIC OBJECTIVES WERE:

1. To determine the extent to which commercial colleges in Nairobi make use of cost leadership strategies in enhancing their enrolment potential.
2. To establish the range of product/service differentiation strategies adopted by commercial colleges for the various market segments in Nairobi.
3. To evaluate the effectiveness of customer focus strategies employed by commercial colleges in Nairobi.

SIGNIFICANCE OF THE STUDY

This study would be instrumental in assisting a number of parties involved in the commercial college businesses within the Nairobi CBD towards achieving their different preset objectives.

Firstly, the findings would potentially help college management in identifying different ways of modifying their products in the quest of meeting consumer demand; appropriate pricing of the various educational packages offered; and access to modern means of understanding and projecting consumers' satisfaction levels. Secondly, the study would be invaluable to new entrants who had interest to participate in the growing market through accessing its literature on the current levels of competition and probable direction. Thirdly, the findings were to be designed to give a substantial contribution to the Government through the Commission of Higher education (CHE), which was responsible for the sub-sector's regulation, in establishing compliant mechanisms of controlling and improving quality standards within the existing competitive environment. Finally, future researchers had the advantage of accessing the study's literature as a basis for advanced studies either in the field of competition or in any other related scope.

RESEARCH DESIGN

A descriptive research design was adopted for the purpose of assessing the study's general intent.

TARGET POPULATION

The population of this study comprised of departmental heads of all commercial colleges operating within Nairobi Central Business District. The existing and fully licensed college population was ninety six (96) according to specification and boundary limits given by the Nairobi City Council. The researcher collected information from a total of three departmental heads from each sampled college, thus adding up to an aggregate target population of 288 potential respondents. The table below shows the proportional differences between the different categories of colleges on the basis of enrolment size.

TABLE 1: TARGET POPULATION

Enrolment Size	No. of Colleges	Population Size (no. of colleges * 3)	Proportion (%)
Less than 250	30	90	31.25
250 – 500	40	120	41.67
500 - 750	17	51	17.70
750 – 1000	6	18	6.25
1000 and above	3	9	3.13
Total	96	288	100

Source: Author

SAMPLING DESIGN

From the 288 target respondents in the Nairobi CBD commercial colleges, the researcher used proportional stratified sampling method to select a sample of 96 informants at 0.3 sampling ratio. The different enrolment sizes for the colleges was used as the base of stratification so that the researcher captured competitive strategies adopted by all levels including small, medium and already established colleges. The stratified sampling techniques ensured that all the selected respondents equitably represented the groups which made the population heterogeneous in nature. The selected size of 96 informants met the recommended criterion suggested by Bell (1993) that requires at least a third of the total target population in order to make a representative sample. The table below shows how the sampling was done:

TABLE 2: SAMPLING DESIGN

Enrolment size	Population size	Sampling Ratio	Sample size
Less than 250	90	0.3	30
250 – 500	120	0.3	40
500 - 750	51	0.3	17
750 – 1000	18	0.3	6
1000 and above	9	0.3	3
Total	288	0.3	96

Source: Research Data

DATA COLLECTION INSTRUMENTS AND PROCEDURES

To assist the researcher meet the study's pre-designed objectives, self-completion and semi-structured questionnaires were designed accommodating all the critical aspects covered in the identified variables. The semi-structured format allowed inclusion of closed-ended question items, which were essential in limiting response irrelevancies while facilitating timely analysis. However, in those issues the researcher was not be able to generate alternatives; open-ended question items provided the required space for statement and clarification.

Before questionnaire administration, the researcher sought permission from the college management through a letter of authority. Additionally, it was be necessary to attach each questionnaire with a copy of the letter in order to create confidence in case respondents doubted the intent of the assessment. Data collection will be scheduled to take place for a continuous period of four weeks, and those questionnaires which shall have not been filled at expiry will be ignored. However, to avoid non-representativeness the researcher targeted at least 75% response rate through creation of rapport and repeated visits.

DATA ANALYSIS AND PRESENTATION

Once the required amount of data were received from the field, they were edited for inconsistencies, coded and entered, controlled, and analyzed using descriptive statistics which included measures of central tendency (mean, mode and median) and measures of dispersion (typically standard deviation to determine response disparities). Descriptive statistics were invaluable in describing the sample data in such away as to portray the typical respondent and to

reveal the general pattern of responses (Burns *et al*, 2000). Ultimately, for the purpose of communicative efficiency to likely users, findings were presented using both statistical techniques (frequency distribution tables) and graphical representations (histogram, bars and pie charts). It was expected that the descriptive summaries from findings would present vastly dispersed data in a consolidated and meaningful interpretations. On this basis, all the analyses and presentations focused on accuracy and reliability in relation to the study's pre-designed objectives.

RESULTS AND DISCUSSION

RESPONSE RATE

The study targeted collecting information from a total of 96 respondents who were identified through proportional stratified sampling process. After questionnaire administration, a total of 85 copies were completed and returned which formed the basis for analysis and subsequent generalization. This represented a response rate of 89% which the researcher considered adequate as it represented views from at least half of the target population units.

COST LEADERSHIP STRATEGIES

Respondents gave different views concerning their varying preferences for the cost leadership strategies that they adopted in marketing of their courses. All the responses were classified and presented as shown in the table below:

TABLE 3: RESPONSES ON COST LEADERSHIP STRATEGIES RESPONSES

Cost leadership strategies	1	2	3	4	5
Charging less in a broad market (many different courses)	1	4	12	35	33
Charging more in a narrow market (few courses)	12	40	16	15	2
Employing more part time lecturers rather than full time lecturers	25	31	20	5	4
Employing more full time lecturers rather than part time lecturers	2	5	13	43	22

Source: Research Data

The responses were analyzed using the mean scores to assist the researcher rank the colleges' preferences as indicated below:

TABLE 4: MEAN SCORES FOR COST LEADERSHIP STRATEGIES

Strategies	Mean Score
Charging less in a broad market (many different courses)	4.4
Charging more in a narrow market (few courses)	3.2
Employing more part time lecturers rather than full time lecturers	2.8
Employing more full time lecturers rather than part time lecturers	4.3

Source: Research Data

Part of the key cost leadership strategies adopted by the colleges included fixing less charges to target large market shares (4.4) and employing full time lecturers rather than part-timers (4.3). The lower charges in respective colleges - to a large extent - attracted students from the rural areas more than from the urban centers, while those colleges which charged highly received more studentship from the urban centers than from the rural areas.

Moreover, full time lecturers received relatively less pay compared to their part time counterparts (if calculated per unit), yet the colleges were in session every month of the year save for minimal breaks.

STUDY CONCLUSION

The commercial colleges in the Nairobi CBD had well intentioned strategies of making their products and services pervasive in the Kenyan market. The academic and professional programmes offered were partly tailored to suit the market's financial ability, were somewhat differentiated to introduce modernity, and partly considered the target customer who they were meant to satisfy.

However, there were open gaps that needed to be addressed in order to add greater value to their programmes.

Differentiation Strategies

With a differentiation strategy the organizations aimed to focus their efforts on particular segments and charged for the added differentiated value. The collected responses were more concentrated on the higher region of the Likert scale as demonstrated in the tables below:

TABLE 5: RESPONSES ON DIFFERENTIATION STRATEGIES

Differentiation Strategies	1	2	3	4	5
Innovation to related specialties	3	8	5	46	23
Introduction of new courses and other services	5	6	14	39	21
Staff training and better methods of service delivery	8	8	7	40	22

Source: Research Data

Differentiation of the services offered at the colleges was meant to make them distinct from others and stand at advantage positions. It was found out that the institutions mainly dependent on continuous changes of quality of their offered programmes through innovative processes into related specialties (4.7) that further involved checking progress in competitors and international industry players. Contemporary courses formed the main source of high enrolment in most colleges; this explained why more effort was placed on assessing prevailing trends to determine what programmes to sell in the market. In addition, lecturers especially from non-education qualifications underwent extra pedagogical training (4.2) to prepare them for better service delivery to the customers. Introduction of new related services was also categorized as practiced at greater extent (4.1). This meant that the colleges mainly focused of their already existing programmes but from a contemporary perspective to add value for customer attraction.

TABLE 6: MEAN SCORE OF PRODUCT/SERVICE DIFFERENTIATION STRATEGIES

Differentiation strategies	Mean Score
Innovation on related specialties	4.7
Introduction of new courses	4.1
Staff training and better methods of service delivery	4.2

Source: Research Data

CUSTOMER FOCUS STRATEGIES

The customers were consistently on focus by the colleges in fear that they would lose them to competitors if satisfaction was not consistently reached. In such a quest, the institutions adopted a variety of customer focus strategies to extend their competitiveness as demonstrated in tables 8 and 9 below.

TABLE 7: RESPONSES ON CUSTOMER FOCUS STRATEGIES

Customer Focus strategies	1	2	3	4	5
Offering a wide range of courses	2	1	35	24	23
Providing student transport	2	4	30	21	28
Providing student with free study materials	4	20	35	22	4
Offering free career counseling	3	19	37	23	3
Facilitation for accommodation	9	13	20	38	5
Adjusting classes to suit students	5	24	34	21	1

The strategies involved offering of wide range of courses (4.3) that enabled students enroll in multiple programmes or shift to preferred ones at later stages. Also colleges owned transport means (4.3) that facilitated movement from the centers to major estates with majority of the students, other than promoting the colleges through the side market appeals and logos. At the moderate extent the colleges provided free study materials (3.5) especially the manual and past question papers; offered free social and professional counseling services (3.4) and adjusted class sessions to suit special clients (3.2) like the evening attendants. All colleges did not offer accommodation services but organized for the needy students to access them from external providers.

TABLE 8: MEAN SCORE OF CUSTOMER FOCUS STRATEGIES

Customer Service Strategies	Mean Score
Offering a wide range of courses	4.3
Providing student transport	4.3
Providing student with free study materials	3.5
Offering free career counseling	3.4
Facilitation for accommodation	4.1
Adjusting classes to suit students	3.2

Source: Research Data

SUMMARY OF FINDINGS

From the study findings it was evident that competition was at an advanced stage for the Kenyan commercial colleges, especially those located at the Central Business District. Despite the regulations that governed entry criteria and operational behavior, most colleges adopted below lower standards merely for the purpose of winning public appeal and subsequent increases in student populations. However, the independent strategies used by different institutions indicated a solid presence of Porter's strategies of competitive advantages in the industry.

The colleges sought a variety of techniques that reduced their costs of service provision which would later be reflected in their pricing levels. Some of the key cost leadership strategies adopted included fixing less charges while targeting wider market shares and employing full time lecturers rather than part-timers, and in some other occasions charging highly to target smaller populations. The lower charges in respective colleges attracted students from the rural areas more than from the urban centers, while those colleges which charged highly received more studentship from the urban centers than from the rural areas. The full time lecturers were mainly preferred because they received relatively less pay compared to their part time counterparts.

Other than cost leadership strategies, services/programmes were also differentiated to make them distinct from others and stand at advantage positions. The institutions mainly engaged in continuous changes of quality of their programmes through innovative processes and implementation of on-the-job training for the lecturers who did not have background in training. Introduction of related services was also used as a differentiation tool. Marketing of course stood out as one critical area where competitors greatly demonstrated consistency on how they presented their products. A variety of tools and approaches that were adopted by the players included aggressive promotions, use of detailed prospectus, use of referrals targeting and corporate clients and finally having flexible teaching/learning methods for instance weekend classes and online teaching other than the regular day and evening programmes.

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ORGANIZATIONAL ANALYSIS OF PANCHAYATI RAJ INSTITUTIONS IN INDIA

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ABSTRACT

The present study is an attempt to analyse the organizational relationship of Panchayati Raj Institution with community development programme. The study analyses that community development programme, instead of being people's programme with government assistance, was becoming more and more government's programme with varying degrees of people's participation. The block advisory committees, created to enlist popular support and participation in the programme, lacked capacity, vitality and power to represent people's point of view. The village panchayat were also found weak and ineffective to mobilize the masses in support of the programme. Besides, in most of the states, there was no organization at the block level to represent the people's will.

KEYWORDS

Panchayati Raj, India.

INTRODUCTION

Democratic decentralization, popularly known as "Panchayati Raj", has historical, ideological and organizational relationship with community development programme. The community development is a national programme; and covers the entire rural population which comprises over 75 per cent of the total Indian population. The present shape of the programme has evolved through several phases. The first began with opening of 15 pilot projects in various states in India. The second was the establishment of 55 community development projects on October 2, 1952. The third phase commenced with the initiation of National Extension Service in October, 1953. The number of blocks went on increasing from year to year, and by October, 1967, the total number of blocks reached 5,265. The goals of the community development programme can be summarized as follows: (i) to increase substantially the agricultural production in the country, improve nation's communication system, health and hygiene, and promote education in villages; and (ii) to generate and direct a process of integrated social, economic and cultural change with the ultimate aim of transforming social and economic life in the villages. Though the official machinery was created to guide and assist the planning and the implementation of the programme, the main responsibility for improving the socio-economic conditions in the village was to rest with the people themselves. It was argued that unless people considered community development as theirs, and valued it as a practical contribution to their own welfare; no substantial result could be gained. Consequently, the people's participation in the planning and the execution of the programme was considered a vital aspect of community development and was sought by setting up of project advisory committees consisting of non-officials in project areas.

OBJECTIVES OF THE STUDY

- i) To analysis of Panchayati Raj institutions in India.
- ii) To check organizational pattern of Panchayati Raj.
- iii) To assess the people's participation in the planning and the execution of the programme.

THE RATIONALES FOR PANCHAYATI RAJ

Three basic rationales can be identified for the creation of Panchayati Raj Institutions as follows:

1. TO MAKE COMMUNITY DEVELOPMENT PROGRAMMES

It was, therefore, considered important to involve the rural population in the programme in order to obtain a realistic perspective on the appropriateness and effectiveness of community development programme—a perspective free from biases stemming from considerations of careerism and public relation needs of deterrents and their personnel. It was argued that the villagers were in the best position to define their own needs. The Study Team consequently observed that "so long as we do not discover or create a representative and democratic institution which will supply the local interest, supervision and care necessary to ensure that expenditure of money upon local projects conforms with the needs and wishes of the locality, invest it with adequate power and assign to it appropriate finances, we will never be able to evoke local interest and excite local initiative in the field of development".

2. THE TRANSFER DECISION MAKING AUTHORITY TO VILLAGERS-REGARDING DEVELOPMENTAL WORK

One of the rationales of Panchayati Raj is to transfer decision-making authority to villagers and their elected bodies regarding developmental matters. Though the Second Five Year structure of administration in which village panchayats would be organically linked with popularly elected organizations, such as district boards, whose functions would include the entire general administration and development of the area, administration of justice, and certain functions pertaining to the revenue administration, the district boards had neither the tradition nor the resources to take up this work. They had also been handicapped by having too large a charge to receive their detailed attention. The chairman and members of the district boards were not in a position to give any considerable portion of their time to the affairs of such a vast area.

3. VALUE OF PARTICIPATORY DEMOCRACY

India is one of the largest democracies in the world. Panchayati Raj is considered a foundation of participatory democracy in India. Jayaprakash Narayan, one of the well-known leaders of Indian democracy, observed that it is a matter of great satisfaction that in our country a beginning has already been made in laying the foundation of participative democracy in the shape of Panchayati Raj or what was called at first "democratic decentralization".

ORGANIZATION PATTERN OF PANCHAYATI RAJ

The Study Team recommended a three tier organizational structure for the Panchayati Raj. The Village Panchayat with elected representatives of the adult population in the village was the lowest unit; the panchayat samiti consisting of the Sarpanchas of Panchayat Samitis in the block area at the intermediate level; and the zila parishad with Chairman of Panchayat Samitis as ex-officio members at the district level. An examination of the organizational structure of the Panchayati Raj Institutions in various states reveals that, though the ideals and basic objectives of the institutions are identical in all the states, their powers, mode of representation of the people, and the nature of inter relationship among them is not uniform. Variations among these institutions have been observed frequently in respect to the unit of devolution at some places it is the district while at the other places it is the block or tehsil and the mode of representation, which in some states is through direct election while in other states it is through indirect election or by both. For example, the State of Rajasthan adopted the Panchayati Raj pattern suggested by the Study Team in toto and accordingly made Panchayat Samiti the most powerful body by making it responsible for the planning and the execution of all the developmental programmes. The Zila Parishad is only a supervisory and coordinating body. A special feature of the scheme is that the Zila Parishad cannot modify the budget proposals of Panchayat Samitis, even though it can return the proposals with a suggestion to modify these. Another feature of the pattern is the total exclusion of officials from membership of both the Samiti and Parishad. The Panchayat Samiti consists of directly elected Sarpanchas of village panchayats in the area, the representatives of scheduled castes, tribes, and cooperatives. The State of Andhra Pradesh

has provided planning and executive powers to both the Panchayat Samiti and Zila Parishad, Developmental programmes of all the departments of the government, including maintenance of minor irrigation, and welfare of backward classes, have been transferred to the Samiti and the Parishad. The Parishad has, in certain areas, supervisory powers while in others it has executive powers. The mode of representation to Panchayat Samiti and Zila Parishad Andhra Pradesh is similar to the mode adopted by the State of Rajasthan. The pattern adopted by Maharashtra is different from both Andhra Pradesh and Rajasthan. The Zila Parishad in Maharashtra is the most powerful body. The main functions of the Zila Parishad are planning and execution of all developmental programmes, primary basic and secondary education, distribution of fertilizers, agricultural implements, improved seeds, etc. Thus, the Zila Parishad is a strong unit with wide powers and responsibilities Table on next page indicates the different patterns of Panchayati Raj, prevailing in the states of the union based on the devolution of executive powers and the mode of direct election of the representatives to Panchayati Raj Institutions.

ORGANIZATIONAL DILEMMAS IN PANCHAYATI RAJ

The organizational dilemmas of Panchayati Raj seem to arise largely from the nature of organizational relationship: (1) among the personnel working in the block administration, and (2) the block administration and Panchayat Samiti. Sociologists studying modern bureaucracy have pointed out that some structural characteristics of bureaucratic organizations tend to create strains, both in terms 'Of organizational goals, and in the inter-personal relationship among the staff', for example, points to some of the problems that arise when an administrator whose authority is based on incumbency of the office rather, than specialized knowledge exerts control over subordinates whose technical specialization and organizational experience differ from his own. Harvey Smith's study similarly reveals that there can be a serious incongruence between the exercise of scalar and functional authority which tends to create conflict in bureaucratic organizations.

CHART 1: PATTERN OF PANCHAYATI RAJ IN STATE OF THE UNION BY LOCATION OF EXECUTIVE POWER AND DIRECT METHOD OF ELECTION IN NINE STATES

State	Method of election				Executive and supervisory powers			
	Panchayat Samiti		Zila Parishad		Panchayat Samiti		Zila Parishad	
	Direct	Indirect	Direct	Indirect	Executive	Supervisory	Executive	Supervisory
Andhra Pradesh	-	-	-	-	+	-	+	+
Assam	+	-	-	-	+	+	-	+
Gujarat	-	-	+	-	+	+	+	+
Bihar	-	-	+	-	+	+	-	+
Haryana	+	-	+	-	+	-	-	+
Maharashtra	+	-	+	-	+	+	+	+
Orissa	-	-	-	-	+	-	-	+
Punjab	-	-	-	-	+	-	-	+
Uttar Pradesh	-	-	-	-	+	-	+	+

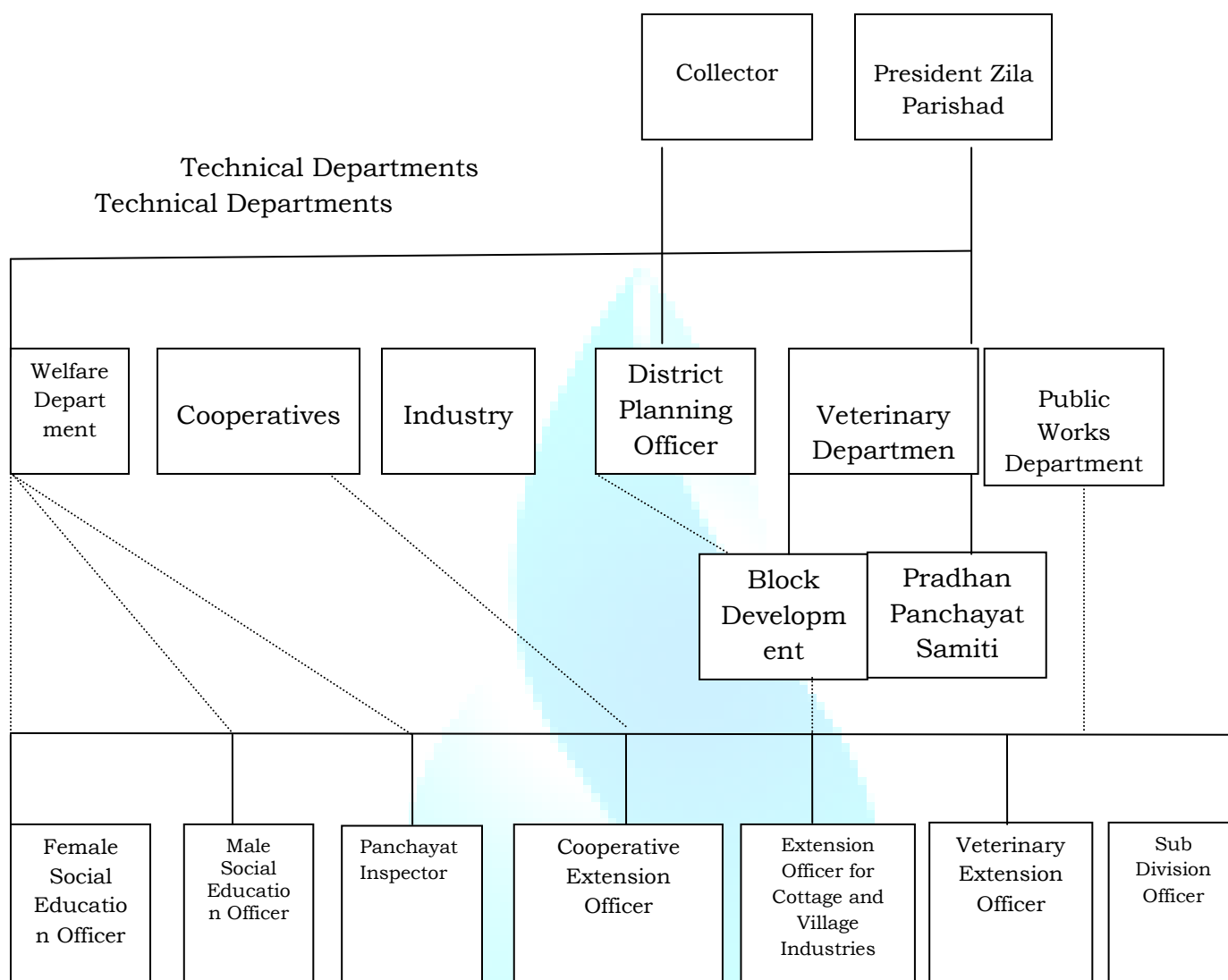
Keys: + Presence of direct election, executive and supervisory power.

- Absence of direct election, executive and supervisory power.

THE MULTIPLE SYSTEM OF CONTROL OVER PERSONNEL

Studies of bureaucratic organizations in the western countries have shown that a dual system of control over the personnel of an organization leads to organizational tension between scalar, and functional authorities when scalar authority (which is based on the office one holds) and functional authority (which rests on the specialized roles one plays in the organization) do not reside in the same person, conflict is likely to occur." In hospitals, for example, where scalar and functional authorities are vested in the hospital administrator and the doctor respectively (the former tends to emphasize administrative procedures and the economy of resources while the latter's overriding concern is with professional standards and the providing of service rather than with administrative rules and policies), the lower ranking personnel are often under the dual control of both the doctor and the administrator whose orders and instructions are frequently contradictory.

CHART 2: ORGANIZATIONAL CONTROL OF EXTENSION OFFICERS AT THE DISTRICT AND PANCHAYAT SAMITI LEVELS



Keys: — Direct Administrative Control
 Indirect Control by Technical Departments

This conceptual framework is very useful in analysing India organization of Panchayati Raj and community development. The administration of Indian community development programme is linked with technical departments, such as agriculture, veterinary science, cooperatives, public health, and like. This has been accomplished by adding community development blocks to the general administration with the Collector at the district level acting as the chief developmental officer, and by putting the technical personnel at the block level under the administrative control of the Block Development Officer while at the district level keeping them professionally responsible to their departmental heads." In other words, extension officers, who are technical personnel in the block, are administratively under the control of the Block Development Officer, while their technical supervision lies in the hands of their District Technical Officers.

SUPERVISION OF TECHNICAL STAFF BY GENERALIST AND BY NON-TECHNICAL ADMINISTRATORS

Tension in bureaucratic organizations tends arise when technical personnel are subordinated to the authority of the generalist administrator. The authority of the modern administrator is often based on the position he holds rather than the technical knowledge he commands. Yet he is required to supervise and evaluate the work of technical personnel who may have far superior skills in their specialization than him. The administrator, therefore, tends to base his evaluation of the technical staff on at they produce rather than how they produce it. This is objected to by the technical staff who very often tend to emphasize the technical-procedure involved in their jobs rather than how much they produce. The situation in Panchayati Raj Administration is similar to that described above. The tension generally is observed between the Block Development Officer, a generalist in the block team, and the Extension Officers, such as the Veterinary Extension Officer, the Agricultural Extension Officer, etc., about whose technical specialization he knows very little and whose work he must supervise. This leads to resentment which lies in the fact that most Block Development Officers are on deputation from general administration and are not equipped, many a times, with the knowledge and technology of specialties, such as Animal Husbandry, Agriculture, Construction, Cottage Industries, etc., which form an important part of the community development programme. They are nevertheless responsible for sanctioning projects in these fields and evaluating these; and they must also report on the performance of the Extension Officers. The criteria which often seem to govern the sanction of projects by the Block Development Officers are: (1) whether a project meets the administrative requirements, such as budgeting; (2) whether there is 'a popular demand for the project in the community; and (3) whether the allocation of money for a particular programme would otherwise be spent within the period of allocation. The Extension Officers, on the other hand, tend to judge a project primarily on technical criteria, such as whether it is technically sound and whether it is worth the effort in cost/gain terms. Conflict is created when Block Development Officers by their administrative authority tend to impose their judgments on the Extension Officers.

ROLE CONFLICT AND ORGANIZATIONAL TENSION IN PANCHAYATI RAJ ADMINISTRATION

The role conflicts among the personnel of Panchayat Samiti also seem to be related to what Melvin Seeman calls status dimension (conflict between the value of dependence and independence), and means/ends dimension (conflict between the emphasis on the process of achievement of the role of Block Development Officer, and to what Parsons and Shils call the universalistic (a value orientation towards institutionalized obligation to society) and particularistic (a value orientation towards institutionalized obligations of friendship, kinship, castes and other primary groups) of the block personnel and the Panchayat Samiti leadership respectively.

When the community development programme was launched in India, the staff was drawn from the existing government departments to fill the various positions. The assignment of programme responsibilities to the personnel was done on the basis of his status in the parent department. In spite of the new expectations in the community development programme, attitudes and behaviours of these officers, however, continued to be largely of their old department. There is a strong tradition in most Indian government agencies, particularly in the Revenue Department from which most of the executive officers in the community development administration were recruited, that it is the job of the government officer to govern; and that senior officers should direct, while junior officers should obey. While this might be an appropriate attitude in other areas, it certainly does not suit the philosophy of the community development programme." Thus, Dube observes that in tasks connected with economic development and community development the Indian bureaucracy has been hesitant and unsure, and its standards of performance and levels of achievement have not been equal to its reputation. Its "structure and ethos suited it more for maintenance of law and order than for massive nation building; its adaptation to the emerging milieu has been beset with organizational incompatibility, psychological resistances and value conflicts. In consequence, it suffers from certain lags and finds "itself unable to grapple with the new challenges with ease and confidence". Thus, a highly authoritarian style of Block Development Officers characterized by superior/subordinate relationships to maintain their 'high' status has created several problems in the administration of community development programmes. For one thing, the relationship between Block Development Officers and the Extension Officers, already strained by the resentment of the latter over their subordination to the former becomes further impaired. The strict superior/subordinate relationship orientation has also created a severe problem of communication, between higher and lower ranks, practically at every level in the community development administration. The communication of information is essentially from higher echelons to lower echelons in the forms of directions and instructions. The limited information which flows from lower levels to higher levels goes through a censoring process in such a manner that it is practically useless when it reaches finally the top most level.

CONCLUSION

The foregoing analysis deals with the structural factors responsible for the tension in the Panchayati Raj Institutions. The main factors examined are: (i) multiple system of control over the Samiti's staff; (ii) the supervision of technical staff by generalist and lay administrators; and (iii) role conflicts. The analysis suggests several theoretical implications. One, it lends support to the hypothesis advanced by Gouldner that the organizational tension resulting from the supervision of the technical staff by generalist administrators is not peculiarly a phenomenon operating in industrial societies, but is an equally significant structural variable in organizations set-up in rural areas for developmental purposes. Second, the multiple system of control over the staff in the organization tends to set limits upon the degrees to which integration of personnel can take place. Third, the social and cultural environments contribute considerably to the organizational behaviour of the personnel working in formal organization. The particularistic orientation among the non-officials in Panchayati Raj seems to stem from the pressures exerted on them, by what Gouldner calls "social system imperatives", such as loyalties to political, ethnic, religious, kinship and caste groups. Presthus observes that the pattern of bureaucratic behaviour reflects the values of the institutions of socialization of the bureaucrat. Nepotism, favoritism, etc., observed in bureaucratic organizations in many under-developed countries are the manifestations of the patterns of family and kinship relations in which personal loyalties outweigh the demands of objectivity and impartiality."

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RELATIONSHIP BETWEEN EXCHANGE RATE AND TRADE BALANCE OF SOUTH ASIA: THE J-CURVE PATTERN

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ABSTRACT

Open market economies has been experiencing a very high and growing deficit in their trade balances since the beginning of the international trade. Developing countries are more victim of this disease and exchange rate depreciation is considered as an injection to overcome this disease. The study has been made an attempt to investigate the long run relationship between trade balance and exchange rate depreciation (J-curve) in south Asia by using panel data technique. The study used panel unit root test and Pedroni cointegration test to investigate the long run relationship between trade balance and exchange rate and some other supporting variables. The study found no evidence of the long run relationship between trade balance and exchange rate depreciation for south Asian region. The study also gives some ideas about further research.

JEL CLASSIFICATION

C33, F10, F14, F31

KEYWORDS

J-curve, Exchange rate, Trade Balance, South Asia, Panel Data, Panel Unit Root, Pedroni Cointegration.

1. INTRODUCTION

In an open market economy, trade balance is considered as one of the major component of GDP. But the problem is that this major component contributes depressingly into the GDP because the payments to the rest of the world are greater than the receiving from the rest of the world. Deficit in the trade balance is a common problem that is being faced by most of the developing countries and exchange rate policy is considered as a powerful tool for the regulation of the external trade sector. These countries devalued their currencies several times with an aim to pick up external trade sector. But the question arises here is that, whether devaluation in the local currency recovers the trade balance or not? To answer this question, most of the economists usually check the Marshall-Lerner condition which postulates that if the sum of imports and exports demand elasticities is greater than unit, devaluation will improve the trade balance otherwise not. Furthermore, goods require moment in time to change the consuming pattern so these goods are inelastic in the short run. Thus, the M-L condition is not fulfilled and real exchange depreciation caused worsening the balance of trade in the beginning. The consumer will fiddle with new prices in the long period and balance of trade will get better. This movement from short run to long run is known as J-curve effect. Thus, each country requires time period to improve her trade balance in response to real exchange depreciation.

In order to explain the J-curve phenomenon in more detail, starting from negative trade balance which usually occurs in the developing countries, experience depreciation in its currency. According to J-curve hypothesis the short run comeback should be negative, but then the trade balance should progress until new level achieved which will be positive (Tarasova and Coupe, 2009). A relevant argument in favor of J-curve hypothesis is that devaluation of a currency required time lags before improving the trade balance in less developed countries, which support the pattern of movement describe by the J-curve (Oskooee, 1985). Rincon and Nelson (2001) also found the strong indication in favor of J-curve hypothesis for small semi-open economies. Depreciation of domestic currency worsens the balance of trade in the short run but get better it in the long run. The existence of M-L condition fulfills in the long run and degree of J-curve hypothesis effects in the short run in East Asia (Onafowora, 2003).

On the other side, some arguments are going against the J-curve hypothesis. Currency devaluation adjusts the balance of trade through import compression and export expansion. A study of 34 developing countries rejects this hypothesis. Imports of these countries are used as inputs into the production of exports. Thus, import compression has as adversely affected on export expansion (Khan and Knight, 1988). An earlier study by Rose and Yellen (1989) examined the relationship between exchange rate depreciation and balance of trade. The study found that trade balance of G-7 countries does not follow the J-curve pattern. Rose (1990) worked on a sample of developing countries to estimate the impact of exchange rate changing on trade balance and concluded that J-curve hypothesis does not exist. Akbostanci (2002) estimated the performance in trade balance in response to real exchange rate depreciation and found no empirical indication which support of J-curve pattern. For instance, a study by Moura and Silva (2005) found no evidence in favor of worsening the trade balance in the short run for Brazil. Alawattage (2002) and Perera (2011) examined the relationship between real exchange rate depreciation and trade balance, and found no empirical confirmation in favor of J-curve phenomenon for the Sri-Lanka. Aftab and Khan (2008) also found no empirical evidence which support the J-curve phenomenon in Pakistan. An important work by Bahmani-Oskooee and Cheema (2009) found no significant impact on balance of trade as a result of exchange rate depreciation of Pakistan's trade with two large trading partners and found no empirical evidence in favor of J-curve hypothesis. Furthermore, a very recent study by Awan et. al. (2012) estimated the impact of currency depreciation on balance of trade in the long run but didn't find any empirical evidence in favor of J-curve phenomenon in Pakistan.

The objective of the study is to examine whether there is evidence of the long run relationship between trade balance and exchange rate, under J-curve hypothesis for the selected South Asian countries named as Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri-Lanka. Thus the study aims to use panel data analysis to examine the long run relationship between trade balance and exchange rate for south Asia for the period 1993 to 2010. The study is different from the previous studies in such a way that this study used regional analysis (pool data) to investigate the relationship between trade balance and exchange rate for South Asia.

After a brief introduction the rest of the study is organized as follows. Section 2 includes the review of literature and section 3 briefly explains theoretical modeling, variable description and data source of the study. Section 4 represents the methodology in detail and in section 5 empirical findings are analyzed. Conclusion of the study and guidance for further study are summarized in the last section.

2. REVIEW OF LITERATURE

The study found various studies on J-curve hypothesis concerning on bilateral basis and/or individual country analysis basis but the study found no study as regional analysis (panel data) regarding J-curve hypothesis. However the relevant review of literature which are presented in the study, clearly divided into two categories. Part 1 includes those studies which give evidence in favor of J-curve hypothesis while part 2 explains those studies which provide evidence of non existence of J-curve hypothesis.

2.1 PART I

Bahmani-Oskooee (1985) estimated that whether exchange rate depreciation will improve the balance of trade in the developing countries named as: Greece, India, Korea and Thailand. The study have used quarterly data for the period of 1973 to 1980 and used Almon lag structure on exchange rate variable. The empirical results supported the pattern of J-curve hypothesis for these countries. However, the study didn't check the stationarity of the data before estimating it, so their empirical findings may be somewhat biased.

Lal and Lowinger (2002) estimated the short run and long run determinants of trade balance of selected South Asian countries. The study used quarterly time series data for the period 1985 to 1998. The study tested the data for stationarity and used Johansen Multivariate Cointegration and Error Correction Model (ECM) approach. The results of the study show that there exist a significant relationship between nominal effective exchange rate and balance of trade of these countries in the short run as well as in the long run. Thus, the study concludes the existence of J-curve phenomenon. However, it was a great effort for developing countries, they can get benefits from trade in the long run but this study has used individual analysis on a region instead of regional analysis.

Wooi and TZE-Haw (2008) examined the exchange rate revelation, J-curve and M-L condition for high frequency trade series between China and Malaysia. The study used the high frequency monthly data for the period of 1990 to 2008. The study used Auto Regressive Distributed Lag (ARDL) bound testing technique and generalized impulse response method to analyze the J-curve hypothesis and M-L condition between the concerned countries. The empirical estimations of the study show that trade balance follow the J-curve pattern in the short run and depreciation get better the trade balance in the long run. Moreover, M-L condition also holds in case of bilateral trade among China and Malaysia.

2.2 PART II

Aftab and Khan (2008) conducted a study to examine, whether the J-curve phenomenon exist in Pakistan or not. The study used time series quarterly data of Pakistan with her 12 major trading partners for the period of 1980:1 to 2005:4. The study used unit root test for checking stationarity and applied Auto Regressive Distributed Lag model. The empirical results of the study provide no evidence in favor of J-curve hypothesis.

Perera (2009) conducted a study to estimate the existence of J-curve phenomenon between Sri-Lanka and her six major trading partners. The study used quarterly bilateral time series data for the period of 1996:1 to 2008:2. The study used Augmented Dickey-Fuller test for stationarity and then employed ARDL model to estimate the short run and long run relationship between exchange rate depreciation and balance of trade. The empirical estimations of the study showed no exact pattern in trade balance of Sri-Lanka as a result of exchange rate depreciation and found no evidence in favor of J-curve hypothesis. However, the study used bilateral data instead of aggregation of data, so the results may be biased.

Bahmani-Oskooee and cheema (2009) investigated the impact of real exchange rate depreciation on balance of trade of Pakistan with her 13 largest trading partners. The study used disaggregated quarterly data of 1980 to 2003 on a bilateral basis to avoid the aggregation bias problem. The study employed two econometric techniques for this rationale, i.e. bound testing technique and Johansen's cointegration techniques. The empirical findings of the bound testing approach explain that almost half of the trading partners including two largest trading partners, i.e. China and UAE hurt by depreciation of Pakistan's currency. The empirical results of Johansen's cointegration approach did not provide any significant long run impact on bilateral trade balance in response to real exchange rate depreciation which proves no indication in favor of J-curve phenomenon in Pakistan. However, the data used in this study were not tested for stationarity, so the estimated findings may be somewhat biased.

Alam (2010) investigated the association among real exchange rate and export earning of Bangladesh. The study used the time series data for the period of 1977 to 2005. The study firstly checked stationarity of the data and then applied cointegration and Granger Causality tests. The empirical estimations of the study represent that there is no cointegration among these variables and the results of Granger causality also show no casual movement of currency depreciation towards export earning of Bangladesh.

A very recent study by Awan et. al. (2012) investigated the existence of J-curve phenomenon in Pakistan by using the quarterly data for the period of 1980 to 2006. The study used ARDL model to estimate the impact of real exchange rate on balance of trade of Pakistan in the long run. The empirical results found that there exists a statistical significance long run relationship among these variables and sign of parameters exhibit that depreciation will only hurt the trade balance. Thus, the study found no evidence which support J-curve phenomenon in Pakistan. The study used only one independent variable, i.e. real exchange rate. However, domestic income and foreign income both are also important determinants of trade balance. Thus, the study must consider these variables.

The above review of literature clearly examine that some studies found long run relationship between trade balance and exchange rate in the long run on individual country basis and/or bilateral trade basis, i.e. depreciation will improve the trade balance in the long run, while some studies found evidence of no long run relationship. In this study the attempt has been made to analyze the long run relationship between trade balance and exchange rate for South Asian countries by using panel data approach (regional analysis). This attempt creates a dominated difference from the previous studies.

3. MODEL SPECIFICATION AND VARIABLE DESCRIPTION

When the trade is liberalized, the real exchange rate, domestic income of a country and world income influence the balance of trade in the long run. Short run estimation is also showed the role of exchange rate in trade balances (Brada, Kutan and Zhou, 1997). The empirical studies that estimate the J-curve phenomenon and relationship between the balance of trade and exchange rate include other variables that influence the trade balance. Miles (1979), Rose and Yellen (1989), Bahmani-Oskooee (2001) summarized elasticity and absorption models. The model that the study used incorporates the following variables:

$$TB = TB(R, Y, Y^*)$$

By taking the log on both sides by using log linear model for long run estimation among those variables, the regression equation we get:

$$\ln(X/M)_{it} = \alpha_0 + \alpha_1 \ln(REX)_{it} + \alpha_2 \ln(Y)_{it} + \alpha_3 \ln(Y^*)_{it} + \epsilon_{it} \dots (A)$$

Where \ln represents the natural logarithm, $(X/M)_{it}$ is measured as the ratio of country i 's exports to the rest of the world and country i 's import from the rest of the world. Y_{it} and Y^*_{it} are domestic income² of country i and rest of the world income³, respectively. REX_{it} is the real exchange rate⁴ of country i with the rest of the world's currency⁵.

Many studies used this model to estimate the existence of J-curve phenomenon. Brada, Kutan, Zhou (1997) used this model for Turkish economy, Gupta and Ramakrishnan (1999) used this model for Japan, Onafowora (2003) used this type of model for three ASEAN countries by using dummy variable, Tochitskaya (2006) used this model for Belarus, Soleymani and Saboori (2011) used this model for Malaysia and Japan, and Moura and Silva (2005) also used this model for Brazil. Thus different studies have used this type of model, but the difference between them and in this study are that this study is going to estimate this model by using panel study analysis.

For panel data analysis, the study used annual frequency data for selected south Asian countries for the period ranges from 1993 to 2010. The larger part of data has been collected from Asian Development Bank (ADB) and other data sources are International Monetary Fund (IMF) and World Development Indicators (WDI).

4. METHODOLOGY

4.1 PANEL UNIT ROOT TESTS

Unit root tests are now a common practice among the applied researchers for time series estimations and have become an ingredient of econometric courses. However, unit root tests for panel data studies are recent phenomenon. Panel unit root test has been originated from time series unit root tests. But panel unit root tests are similar but not identical to the time series unit root test. However, the panel unit root tests proposed by Levin, Lin and Chu (2002), Im, Pesaran and

² Domestic income has been taken as GDP of each country i at constant prices (i.e. real GDP).

³ World income is defined as the sum of real GDP of seven major trading partners of Asian developing countries, these countries are USA, UK, China, Japan, UAE, France, and Germany. The GDP of these countries account as more than 50 % of the world GDP, so that's why the study has been used this proxy as a world income.

⁴ Real exchange rate is measured as $REX_{it} = (e \cdot P^* / P_i)$. Where P^* is the world price level, Consumer Price Index (CPI) of USA annual percentage has been used as a proxy for world price level, while P_i is the CPI annual percentage for each country i , and e is the nominal exchange rate of country's currency per unit dollar at average of each annual period.

⁵ Rest of the world currency has been taken as US dollar because larger part of world trade takes place by using US dollar currency.

Shin (2003), and The Fisher's type tests: Maddala and Wu (1999) and Choi (2001) tests are known as best non-stationary tests for pool series than the univariate time series tests.

4.1.1 LEVIN, LIN AND CHU TEST

Individual unit root tests like ADF test and Phillip-Perron test have limited power because it tends to evaluate the stationary hypothesis of only time series data. However, Levin, Lin and Chu (2002)⁶ argued that the use of Levin-Lin-Chu test of unit root for a pooled time series and cross-sections (panel) data can significantly enhance the power of the test. Levin-Lin-Chu (LLC) test develop the following hypothesis:

H_0 : each individual time series contains a unit root

H_1 : each individual time series is stationary

The mathematical representation of maintained hypothesis is that

$$\Delta Y_{it} = \rho Y_{i,t-1} + \sum_{l=1}^{P_i} \theta_{il} \Delta Y_{i,t-l} + \alpha_{mi} d_{mt} + \varepsilon_{it} \quad \dots\dots\dots (4.1.1.1)$$

Where

Y_{it} is a series for panel country i ($i = 1, 2, 3, \dots, N$) over the period of time t ($t = 1, 2, 3, \dots, T$)

P_i is the number of lags in the Augmented Dickey-Fuller regression,

d_{mi} denotes the vector of deterministic variables,

α_{mi} is the corresponding vector of coefficients for model $m = 1, 2, 3$,

And in the last, the error term ε_{it} is assumed to be IID ($0, \sigma^2$).

Levin-Lin-Chu proposes a three-step procedure to perform their test.

Step1: Run the separate ADF regression for each individual cross section.

Step2: calculate approximately the fraction of long-run to short run standard deviations.

Step3: finally, get the panel test statistics after estimating the pooled OLS regression. *i.e.*

$$\tilde{\varepsilon}_{it} = \rho \tilde{Y}_{i,t-1} + \tilde{\varepsilon}_{i,t}$$

The null hypothesis here is that $H_0: \rho = 0$. The necessary condition for the Levin-Lin-Chu test is $\sqrt{N_T}/T \rightarrow 0$

Where N_T asserts that cross-sectional dimension N is a monotonic function of time T . while the sufficient condition of Levin-Lin-Chu test is $\sqrt{N_T}/T \rightarrow 0$ and $N_T/T \rightarrow (k)$ constant.

Levin-Lin-Chu test provides statistical basics for panel unit root tests and it seems to be more suitable. However, LLC test has some restriction; one of them is that it enforced a cross-equation constraint of the first order autocorrelation coefficient. This dilemma has been controlled by Im, Pesaran and Shin (2003), which permit the autocorrelation coefficients to differ across individual cross-sections.

4.1.2 Im, Pesaran and Shin Test

Unlike LLC (2002) test, Im, Pesaran and Shin (2003) suppose that autoregressive coefficient vary from country to country. The Im-Pesaran-Shin (IPS) test suggested an alternative testing method based on averaging entity unit root test statistics. Instead of pooling the data, IPS contemplate the mean of Augmented Dickey-Fuller statistics estimated for each cross-section unit in the panel when μ_{it} is serially correlated with different serial correlated properties across cross-section units. *i.e.* The model given as

$$\Delta Y_{it} = \rho_i Y_{i,t-1} + \sum_{l=1}^{P_i} \theta_{il} \Delta Y_{i,t-l} + \alpha_{mi} d_{mt} + \varepsilon_{it} \quad \dots\dots\dots (4.1.2.1)$$

Where

As usual $i = 1, 2, 3, \dots, N$, and $t = 1, 2, 3, \dots, T$

The null hypothesis here is that each cross-section series in the panel holds a unit root, *i.e.*

$H_0: \rho_i = 0$ for all i

Against the alternative hypothesis that some (but not for all) of the individual cross-section series have a unit root. *i.e.*

$$H_1: \begin{cases} \rho_i < 0 & \text{for } i = 1, 2, \dots, N_1 \\ \rho_i = 0 & \text{for } i = N_1 + 1, \dots, N \end{cases}$$

IPS test estimated separate unit root tests for all the cross-section units and describe their t -bar statistics as a simple mean of the individual Augmented Dickey-Fuller statistics. *i.e.*

$$\bar{t} = \frac{1}{N} \sum_{i=1}^N t_{it}$$

Where t_{it} is the individual t -statistics for testing $H_0: \rho_i = 0$ for all cross-sections. In this case the lag order is always zero for all cross-sections (*i.e.* $P_i = 0$). IPS also assumes that t_{it} is IID and has finite mean and variance. However, followed by Lindeberg-Levy central limit theorem, the standardized t -bar statistics concentrate towards the standard normal variate as $N \rightarrow \infty$ under the null hypothesis. Hence

$$t_{IPS} = \frac{\sqrt{N} \left(\bar{t} - \frac{1}{N} \sum_{i=1}^N E[t_{it} | \rho_i = 0] \right)}{\sqrt{\frac{1}{N} \sum_{i=1}^N \text{var}[t_{it} | \rho_i = 0]}} \Rightarrow N(0, 1)$$

$$t_{IPS} = \frac{\sqrt{N} (\bar{t} \cdot E[t_{it} | \rho_i = 0])}{\sqrt{\text{var}[t_{it} | \rho_i = 0]}} \Rightarrow N(0, 1)$$

The term $E[t_{it} | \rho_i = 0]$ and $\text{var}[t_{it} | \rho_i = 0]$ have been generated by IPS via simulations and tabulations.

IPS simulations illustrate that if there is no serial correlation, the t -bar test has estimated very strong results, even for the small set of T ($T=10$). The strength of t -bar test is an increasing function of T and N as well. However, it is very essential to note here that this estimation method used by IPS is contemplated only balanced panel data. Unbalanced panel data allow more replication have to be carried out to get critical values. In such cases of serial correlation, IPS suggests the use of Augmented Dickey-Fuller t -test for individual cross-section series. Another drawback of IPS test is that this panel unit root test requires special care at the time of interpretation of these estimated results. The rejection of the null hypothesis does not mean that the unit root null is rejected for all individual cross-sections " i ", but the null hypothesis is rejected only for $N_1 < N$ cross-sections because $N \rightarrow \infty$, $N_1/N \rightarrow \delta > 0$. The reason behind this is simply that the alternative hypothesis considered heterogeneous nature.

4.1.3 THE FISHER'S TYPE TESTS

Maddala and Wu (1999) and Choi (2001) explore the deficiencies of unit root tests of panel data, as given by LLC (2002) and IPS (2003) which have discussed in previous sections. Maddala and Wu (1999) offer an alternative unit root testing procedure for panel data. They made a amalgamation of the p -values of the test statistics for a unit root in each cross section unit. This method is based on non-parametric Fisher type test. Choi (2001) made an attempt to overcome these limitations and suggests a test which is based on the amalgamation of p -values. Choi (2001) proposed the model as

$$y_{it} = d_{it} + x_{it} \quad \dots\dots\dots (4.1.3.1)$$

Where i is cross-section vary with time period t , as usual and

$$d_{it} = \alpha_{i0} + \alpha_{i1}t + \dots + \alpha_{imi}t^{mi} \quad \dots\dots\dots (4.1.3.2)$$

$$x_{it} = \rho_i x_{i(t-1)} + \mu_{it} \quad \dots\dots\dots (4.1.3.3)$$

Where μ_{it} is integrated of order zero. An important note here is that the observed data y_{it} consist of a nonstochastic process d_{it} and a stochastic process x_{it} .

⁶ Levin and Lin conduct their study in 1992 in first time and develop a panel unit root test. In 1993 they adjusted the analysis for autocorrelation and heteroskedasticity. In 2002 (Levin, Lin and Chu, 2002) contribute major results of their researches.

The null hypothesis is that all the time series are unit root. *i.e.*

$H_0: \rho_i = 1$ for all cross section (i)

The alternative hypothesis is that some time series are unit root while the other are not. *i.e.*

$H_1: |\rho_i| < 1$ for at least one i for finite N

Or in a special case, the alternative hypothesis may be that all the time series are stationary. *i.e.*

$H_1: |\rho_i| < 1$ for some i 's, for infinite N .

The formula of Fisher type test is as follow:

$$P = -2 \sum_{i=1}^N \ln p_i$$

It uses p-values from unit root tests for each cross-sections ' i ' in the panel data.

The Fisher's type test has some main advantages. First, like IPS test it does not require the balance panel for estimation. The second one is that it can be carried out for any unit root test derived. Finally, it is feasible to use different lag lengths in the individual ADF test.

The disadvantage of Maddala and Wu (1999) is cross-sectional independence which is logical under the grave assumption. Another important disadvantage of Fisher's type test is that Monte Carlo simulation derived p-values. The situation when N is large, Choi (2001) proposed a modified P test.

$$P_m = \frac{1}{\sqrt{N}} \sum_{i=1}^N (-2 \ln p_i - 2)$$

The test statistics correlates to the standardized cross-sectional average of individual P-values.

4.2 PANEL COINTEGRATION TEST

Like the panel unit root tests, panel cointegration tests give more appropriate results as compared to cointegration tests for individual time series. The cointegration tests for individual time series have low strengthening power for small T and short duration of the data which is limited because of many reasons like post war, great depression, and earthquakes etc. To overcome this problem of small period data, the study collects similar countries like south Asian region and make pool data with a aim of adding cross-sectional variation to the data. It will enhance the strength of panel unit root tests and panel cointegration tests as well. In this study, these panel cointegration tests will make us sure that whether trade balance has long run relationship with independent variables (expressed in model A) or whether the J-curve phenomenon lies in this region or not. For this purpose the study used panel cointegration techniques as presented by Pedroni (1999, 2004).

4.2.1 PEDRONI COINTEGRATION TEST

Pedroni (1999, 2004) proposed several tests for estimating the null hypothesis of no cointegration. These tests is based on Engle-Granger⁷ framework and allowed for considerably heterogeneous intercepts and trend coefficients across cross-sections. The procedure proposed by Pedroni considers the following regression.

$$y_{it} = \alpha_i + \delta_i t + \beta_{mi} x_{mit} + e_{it} \quad \dots\dots\dots (4.2.1.1)$$

For $t = 1, 2, \dots, T$, $i = 1, 2, \dots, N$, and $m = 1, \dots, M$

Where T is the number of observations that does vary over time, N is the number of individual cross-sectional units included in the panel, and finally M is the number of independent variables. It is assumed here that y and x are assumed to be integrated of order one $I(1)$. In the above equation (5.2.2.1), α_i and δ_i are the fixed effects parameters which vary across individual cross-sections.

Pedroni's test can be classified into two categories: first is the within dimensions and second is the between dimensions. The first set involves the averaging test statistics for cointegration in the time series across cross-sections and the second set depends on those estimators that are collect simply by averaging the individual estimated coefficients for each number i . Both sets of procedures are arranged to test the null hypothesis of no cointegration. *i.e.*

$H_0: \gamma_i = 1$ for heterogeneous panels

Against the two types of alternative hypothesis, the homogeneous and heterogeneous; these alternative hypothesis depend upon two categories (which are discussed previously). The first category includes averaging test statistics for cointegration in the time series and cross-sections, that is, pooling the residuals within the dimensions of the panel. So that the alternative hypothesis is expressed as:

$H_1: \gamma_i = \gamma < 1$ for all i . This considers a common value $\gamma_i = \gamma$.

The second category is the heterogeneous alternative which considers pooling the residual along the between dimensions of the panel, so that the alternative hypothesis:

$H_1: \gamma_i < 1$ for all i . This allows for heterogeneous autocorrelations parameters across cross-sections.

The first set of panel within category includes four statistics that are similar to the 'panel variance ratio', Z_v^w , 'panel rho' Z_ρ^w , and 'panel t' Z_t^w statistics in Phillips and Ouliaris (1990), such that⁸:

$$\begin{aligned} Z_\rho^w &= \left(\sum_{i=1}^N \sum_{t=1}^T L_{11i}^{-2} \hat{e}_{it-1}^2 \right)^{-1} \sum_{i=1}^N \sum_{t=1}^T L_{11i}^{-2} (\hat{e}_{it-1}^2 \Delta \hat{e}_{it} - \lambda_i) : \text{Rho} - \text{stat} \\ Z_{PP}^w &= \left(S_{NT}^{*2} \sum_{i=1}^N \sum_{t=1}^T L_{11i}^{-2} \hat{e}_{it-1}^2 \right)^{-1/2} \sum_{i=1}^N \sum_{t=1}^T L_{11i}^{-2} (\hat{e}_{it-1}^* \Delta e_{it}^*) : \text{PP} - \text{stat} \\ Z_t^w &= \left(\hat{\sigma}^2 \sum_{i=1}^N \sum_{t=1}^T L_{11i}^{-2} \hat{e}_{it-1}^2 \right)^{-1/2} \sum_{i=1}^N \sum_{t=1}^T L_{11i}^{-2} (\hat{e}_{it-1}^2 \Delta \hat{e}_{it} - \lambda_i) : \text{ADF} - \text{stat} \\ Z_v^w &= \left(\sum_{i=1}^N \sum_{t=1}^T L_{11i}^{-2} \hat{e}_{it-1}^2 \right)^{-1} : \text{V} - \text{stat} \end{aligned}$$

The second set of the panel between statistics includes three statistics represented as:

$$\begin{aligned} Z_\rho^B &= \left(\sum_{i=1}^N \sum_{t=1}^T \hat{e}_{it-1}^2 \right)^{-1} \sum_{i=1}^N \sum_{t=1}^T (\hat{e}_{it-1}^2 \Delta \hat{e}_{it} - \lambda_i) : \text{Rho} - \text{stat} \\ Z_t^B &= \sum_{i=1}^N \left(\hat{\sigma}^2 \sum_{t=1}^T \hat{e}_{it-1}^2 \right)^{-1} \sum_{t=1}^T (\hat{e}_{it-1}^2 \Delta \hat{e}_{it} - \lambda_i) : \text{ADF} - \text{stat} \\ Z_{PP}^B &= \sum_{i=1}^N \left(\sum_{t=1}^T S^{*2} \hat{e}_{it-1}^2 \right)^{-1} \sum_{t=1}^T (\hat{e}_{it-1}^* \Delta \hat{e}_{it}^*) : \text{PP} - \text{stat} \end{aligned}$$

⁷ Conventional Engle-Granger based on time series analysis. Pedroni (2004) explained that testing for cointegration in panel data is not as simple as the conventional Engle-Granger way because the problems of homogeneous and heterogeneous are involved in the cross-sectional panel data. Thus, Pedroni (1999, 2004) extending the Engle-Granger framework to tests the panel data.

⁸ For more detail, see Badarudin (2009), and Baltagi (2008), and Abdullah, Bakar and Hassan (2010)

5. EMPIRICAL ESTIMATIONS

The results of panel unit root test for all variables included in model A are expressed in table 1, 2, 3, and 4. These tables represent the results of LLC t-stat, IPS W-stat, ADF Fisher Chi-Square, and PP Fisher Chi-Square at level and at first order difference with intercept and with intercept plus time trend.

TABLE 1: PANEL UNIT ROOT TEST RESULTS

Variable	LXM			
	At Level		At First Order Difference	
	Intercept	Intercept + Trend	Intercept	Intercept + Trend
LLC t*stat	1.0093 (0.8436)	1.5594 (0.9405)	1.5215 (0.9359)	3.1507 (0.9992)
IPS W-stat	1.05680 (0.8547)	1.0186 (0.8458)	-3.3387* (0.0004)	-1.7812** (0.0374)
ADF-Fisher Chi-square	6.8517 (0.9403)	7.6898 (0.9049)	36.8297* (0.0008)	25.1121** (0.0335)
PP-Fisher Chi-square	11.4063 (0.6539)	15.0873 (0.3722)	90.3959* (0.0000)	66.7274* (0.0000)

Note: Probabilities are in parenthesis. * and ** indicate the rejection of null hypothesis at 1% and 5% level of significance, respectively. The values are rounded off to four decimal points.

TABLE 2: PANEL UNIT ROOT TEST RESULTS

Variable	LY			
	At Level		First Order Difference	
	Intercept	Intercept + Trend	Intercept	Intercept + Trend
LLC t*stat	3.01647 (0.9987)	-0.3554 (0.3612)	-3.2669* (0.0005)	-3.6281* (0.0001)
IPS W-stat	5.4926 (1.0000)	1.4324 (0.9240)	-2.3960* (0.0083)	-1.7594** (0.0393)
ADF-Fisher Chi-square	1.8489 (0.9999)	6.9722 (0.9358)	27.2533** (0.0178)	22.3583*** (0.0715)
PP-Fisher Chi-square	4.9593 (0.9864)	12.1144 (0.5971)	73.0805* (0.0000)	66.6583* (0.0000)

Note: Probabilities are in parenthesis. *, ** and *** indicate the rejection of null hypothesis at 1%, 5% and 10% level of significance, respectively. The values are rounded off to four decimal points.

TABLE 3: PANEL UNIT ROOT TEST RESULTS

Variable	LY*			
	At Level		At First Order Difference	
	Intercept	Intercept + Trend	Intercept	Intercept + Trend
LLC t*stat	-3.6923* (0.0001)	-0.7923 (0.2141)	-6.5993* (0.0000)	-6.9994* (0.0000)
IPS W-stat	0.18390 (0.5730)	-0.7748 (0.2192)	-5.2769* (0.0000)	-5.0023* (0.0000)
ADF-Fisher Chi-square	8.6668 (0.8518)	15.0217 (0.3767)	52.7776* (0.0000)	48.2883* (0.0000)
PP-Fisher Chi-square	31.2757* (0.0051)	1.8693 (0.9999)	43.6414* (0.0001)	37.1278* (0.0007)

Note: Probabilities are in parenthesis. * and ** indicate the rejection of null hypothesis at 1% and 5% level of significance, respectively. The values are rounded off to four decimal points.

TABLE 4: PANEL UNIT ROOT TEST RESULTS

Variable	LREX			
	At Level		At First Order Difference	
	Intercept	Intercept + Trend	Intercept	Intercept + Trend
LLC t*stat	-1.7750** (0.0379)	-0.8379 (0.2010)	-4.4230* (0.0000)	-4.2058* (0.0000)
IPS W-stat	-1.3059*** (0.0958)	0.7734 (0.7804)	-4.4741* (0.0000)	-2.7344* (0.0031)
ADF-Fisher Chi-square	19.0238 (0.1640)	12.5218 (0.5645)	46.6710* (0.0000)	34.4117* (0.0018)
PP-Fisher Chi-square	24.3106 (0.0420)	13.1070 (0.5181)	99.3213* (0.0000)	79.1691* (0.0000)

Note: Probabilities are in parenthesis. *, ** and *** indicate the rejection of null hypothesis at 1%, 5% and 10% level of significance, respectively. The values are rounded off to four decimal points.

The empirical findings of panel unit root tests (LLC, IPS, ADF and PP tests) reported in the above four tables indicate that the study failed to reject the null hypothesis of unit root at level. So it supports the existence of unit root in all variables across countries. Hence, based on these four tests, the study found the strong evidence that all the series are in fact stationary at first order difference, i.e. I(1).

After conformation of the order of integration, the next step is to find out the long run relationship among variables. Since all the variables are found to be integrated of the same order, i.e. I(1), thus the study continue with the panel cointegration test as presented by Pedroni (1999, 2004). The results of Pedroni Panel Cointegration are expressed in the following table.

TABLE 5: THE PEDRONI PANEL COINTEGRATION RESULTS

Tests	Individual Intercept		Individual Intercept and Individual Trend	
	Statistics	Prob.	Statistics	Prob.
Panel v-Statistics	0.7346	0.3046	0.1258	0.3958
Panel p-Statistics	1.0179	0.2376	1.3426	0.1620
Panel PP-Statistics	-1.0918	0.2198	-2.1812	0.0370**
Panel ADF-Statistics	-0.9143	0.2627	0.1743	0.3929
Group p-Statistics	1.9649	0.0579***	2.0720	0.0466**
Group PP-Statistics	-1.9349	0.0614***	-3.8795	0.0002***
Group ADF-Statistics	-0.6979	0.3127	-0.3941	0.3691

Note: All the test-statistics and probabilities are computed from Pedroni's procedure (1999, 2004). The values are rounded off to four decimal points. ** and *** indicate the rejection of null hypothesis at 5% and 10% significance level, respectively.

The results of Pedroni panel cointegration with and without individual trend are presented in table 11. With individual intercept, we found 2 out of 7 statistics and goes in favor of alternative hypothesis. Group p and Group PP-Statistics indicate that the null hypothesis is rejected at 10 percent significance level. While other 5 statistics explain that we fail to reject null hypothesis and there exist no long run relationship among variables. On the other hand, at individual Intercept and Individual time Trend, 3 out of 7 statistics indicate the rejection of null hypothesis of no cointegration while other 4 statistics failed to reject null hypothesis. Thus the results indicate that there exists no cointegration among variables and depreciation of a currency would not lead to improvement in the trade balance for south Asian countries even in the long run.

6. CONCLUSIONS

In this study, the attempt has been made to estimate the long run relationship between real exchange rate and balance of trade of South Asia as a regional analysis. The Pedroni cointegration approach provided no confirmation of long run relationship among real exchange rate, domestic income, world income, and trade balance of South Asia. Thus, the study found no evidence in favor of J-curve phenomenon for South Asia. This region has devalued their currency many times with an aim to improve the trade balance but the results are always opposed to it. Because major imports of this region are petroleum and petroleum products, capital goods and machinery which have lack of substitute availability and the demand for these imported products are price inelastic, that's why; this would create an exchange rate trap for this region. i.e. when exchange rate depreciation occurs, the imports commodities of this region becomes more expensive and this region has to pay more foreign currency (\$) for the purchase of these imported items which cause the increase in the demand for foreign currency and as a result domestic currency devalued again. Thus, the empirical estimation of the study found no evidence of the long run relationship between trade balance and real exchange rate depreciation of south Asia. In other words real exchange rate depreciation will not cause improvement in the trade balance of South Asian countries even in the long run. Here the study gives some ideas for further research, i.e. why this region doesn't improve the trade balance by using exchange rate as a tool, or how this region can improve their trade balance or how this region can break up this exchange rate trap.

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VOLATILITY IN GOLD PRICE IN INDIA: AN UPDATE

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ABSTRACT

During the end of the World War II, in 1944, forty-four countries around the world signed the well-known Bretton Woods Agreement to establish a new currency system based on gold. They specified the value of the US Dollar is connected to gold and other currencies are connected to the US Dollar. This system indicated where gold standing, not only just as an invest good. This metal has been the only commodity that served as currency in international financial business for centuries. Gold is so ideal that a number of currencies were based on the value of it. For residents, it is an excellent investment good since it could protect them from assets devaluation. For a country, it is an important reserve asset; the situation is somewhat the same as the other precious metals.

KEYWORDS

currency, commodity, reserve asset, assets devaluation, precious metals.

INTRODUCTION**VOLATILITY**

Volatility¹ is a measure of uncertainty about future price or return changes on assets. Concerning the factors which drive volatility, there are two arguments. Some scholars say it is exogenously driven by unobservable factor which is correlated with the asset returns. But others concluded that stock market volatility has a very strong pattern of business cycle.

Volatility is a measure of dispersion around the mean or average return of a security. One way to measure volatility is by using the standard deviation, which tells you how tightly the price of a stock is grouped around the mean or moving average (MA). According to Jones volatility will be higher during recession than during expansion.

GOLD MARKET

"Today, gold is regarded as a sign of prosperity, an ornament, a currency and an integral part of religion." This statement can be found in the research summary on the outlook for gold demand and supply in India, a publication by the World Gold Council³, which is a market development association of gold mining companies representing more than 60% of the global annual gold production. The demand for gold around Festival, marriage etc., The most essential part in Indian culture, is said to impact the gold price globally, as the traditional gift of red envelopes with cash has, in recent years, increasingly been replaced by jewelry.⁴

Gold has been used throughout history as a form of payment and has been a standard for currency equivalents to many economic regions or countries. In spite of its historical monetary significance, a free functioning world market only came of age in recent times. Before 1971, the gold standard was mostly used in various times in history, where domestic currencies have been backed by gold. The system existed until 1971, when the US stopped the direct convertibility of the United States dollar to gold, effectively causing the system to break down. Since then, a global market for gold in its own right developed, remaining open around the clock and open to a range of derivative instruments.

The market for gold⁵ consists of a physical market in which gold bullions and coins are bought and sold and there is a paper gold market, which involves trading in claims to physical stock rather than the stock themselves. Physical gold is generally traded in the form of bullions. The bullion market serves as a conduit between larger gold suppliers such as producers, refiners and central banks and smaller investors and fabricators. The bullion market is essentially a spot market, but is complemented by the use of forward trading for the hedging of physical positions.

Since 1919, the most widely accepted benchmark for the price of gold is known as the London gold fixing, a twice-daily (telephone) meeting of representatives from five bullion-trading firms⁶.

Furthermore, there is active gold trading based on the intra-day spot price, derived from gold-trading markets around the world as they open and close throughout the day. The key prices in the London bullion market are the spot (fixings) price, the forward price and the lease rate. The spot (fixings) price is a daily clearing or fix price obtained by balancing purchases and sales ordered through its members. The forward price (GOFO) is the simultaneous purchase and sales price of gold forward contracts of various lengths. Generally, the GOFO rate is expressed as an annual percentage⁷. Finally, the lease rate refers to short-term loans denominated in gold and is expressed as an annualized interest rate.

Since 1971 the price of gold has been highly volatile, ranging from a high of US\$850 on January 21, 1980, to a low of US\$252.90 on June 21, 1999. The period from 1999 to 2001 marked the so-called Brown Bottom after a 20-year bear market.

Prices increased rapidly from 1991, but the 1980 high was not exceeded until 2008 when a new maximum of \$865.35 was set on January 3, 2008. Another record price was set on March 17, 2008 at \$1023.50. In the second half of 2009, gold markets experience renewed momentum upwards due to increased demand and a weakening US dollar. Overall, since April 2001, the gold price has more than tripled in value against the US dollar.

FACTORS INFLUENCING GOLD PRICES

Essentially the price of gold is determined by:

- 1) Supply
- 2) Demand for use in goods such as jewellery
- 3) Speculative demand to hedge against inflation and economic uncertainty.

DEMAND FOR CONSUMER GOODS

Markets⁸ like India have strong demand for using gold in jewellery. Economic growth in India increases disposable income and therefore demand for gold. As gold is a luxury good (income elasticity of demand > 1) then a rise in income in India could lead to a bigger % demand for gold.

INVESTMENT

Gold is seen as desirable element in an investment portfolio. Gold⁹ will hold its value even during inflation. At various times, investment trusts and individuals will have a greater demand for saving their wealth in the form of gold. This can lead to higher demand for gold to store wealth. This investment demand is the primary factor behind the increase in price of gold between 2006 and 2011.

INFLATION PROSPECTS

With inflation of 0%, money retains its value. However, if inflation increases to 20%, then money (notes and coins) will reduce in value. If inflation is very high, then money can soon lose all its value. Therefore in periods of high inflation, people will seek to switch out of cash and into physical assets which retain their value. The most important inflation proof investment is seen as gold¹⁰.

Note, it also depends on the real interest rate¹¹. If inflation is 6%, but interest rates are 8%, you can still protect the value of your savings in a bank. However, if you get a situation of high and volatile inflation, you are more likely to have negative real interest rates. A key issue is whether market fear inflation could get out of control.

Macroeconomic factors¹² such as low real interest rates can have an effect on gold price. If the return on bonds, equities and real estate is not adequately compensating for risk and inflation, then the demand for gold and other alternative investments such as commodities increases. An example of this is the period of stagflation that occurred during the 1970s which led to an economic bubble forming in precious metals.

Central banks and the International Monetary Fund (IMF)¹³ also play an important role in determining the gold price. Recently, the assumption that central banks around the world will increase their gold reserve levels as a hedge against the falling US dollar has also contributed to the rise of gold prices.

Given the huge quantity of stored gold^{14,15,16}, compared to the annual production, the price of gold is mainly affected by changes in sentiment, rather than changes in the actual annual production.

VOLATILITY IN GOLD PRICE^{17,18,19}

In early 1950s, gold touched rs.99 then the price falls up and it increases during 1960s & again the price falls up during the year 1963 – 1967. Then the price increases shaply. Adjusted for inflation, the record gold price reached rs.1300 in 1980 .however, after this 1980 peak the price of gold fell sharply. Then again it increases upto rs 32,000 in the year 2012. Now volatility in gold can be seen in this year 2013. The gold prices is decreases upto rs.26,000 in the month of april - may 2013.

FIG. 1: VOLATILITY OF GOLD PRICE DURING THE YEAR 1950 - 59

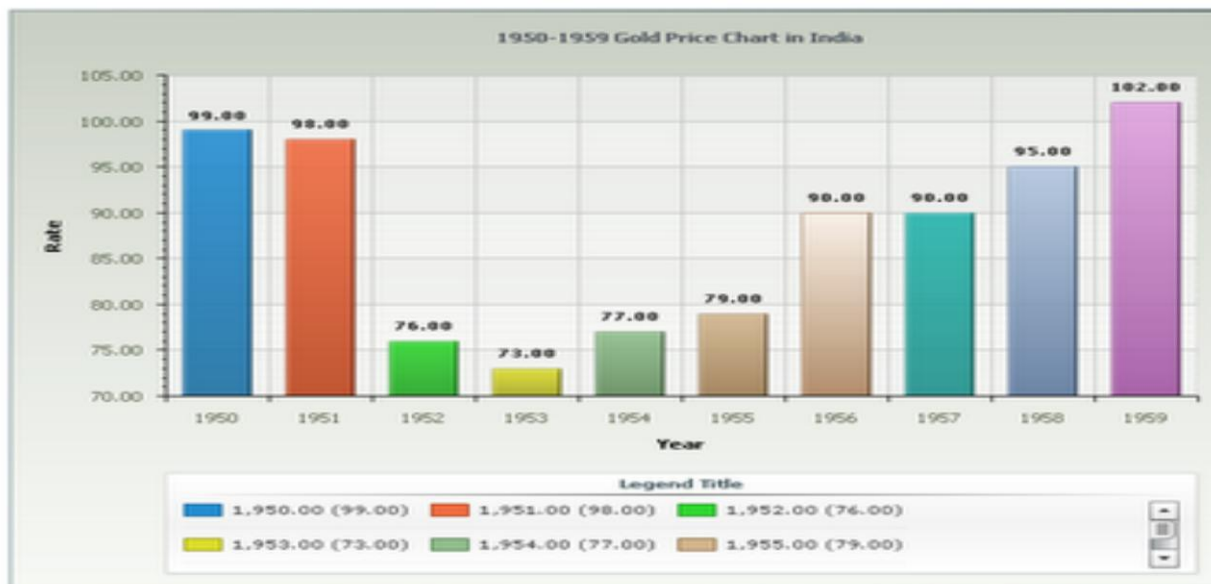


FIG. 2: VOLATILITY OF GOLD PRICE DURING THE YEAR 1960 - 69

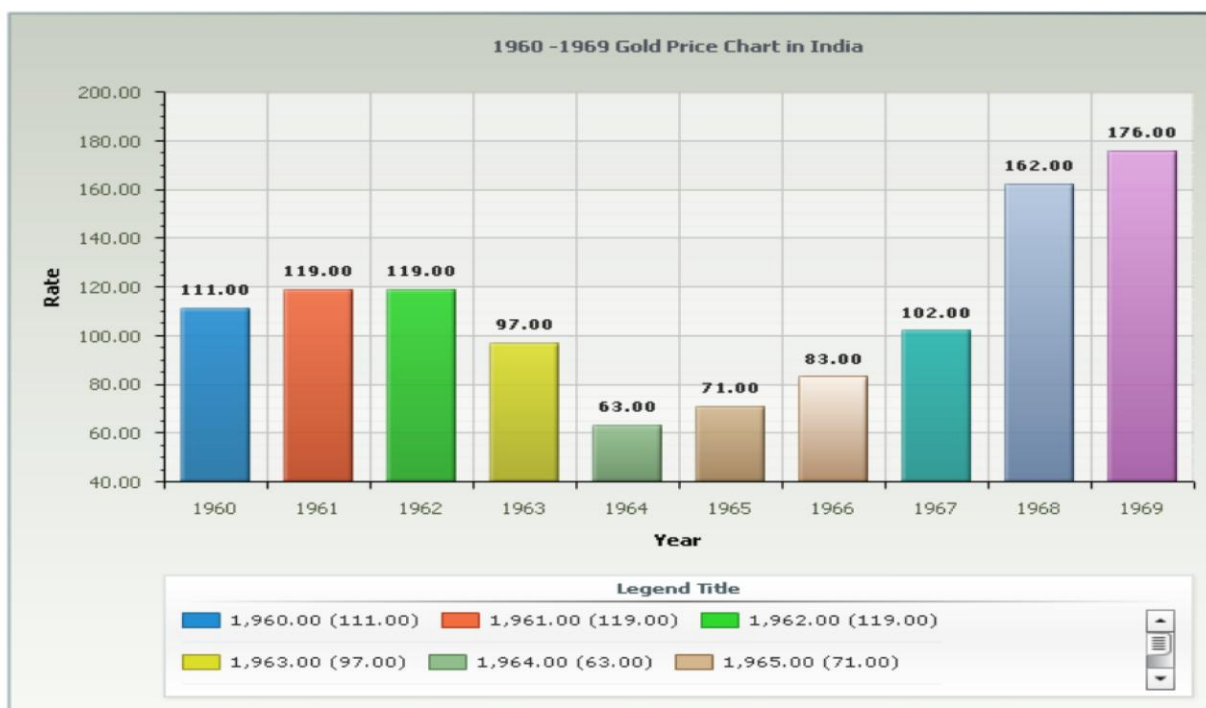


FIG. 3: VOLATILITY OF GOLD PRICE DURING THE YEAR 1970 - 79

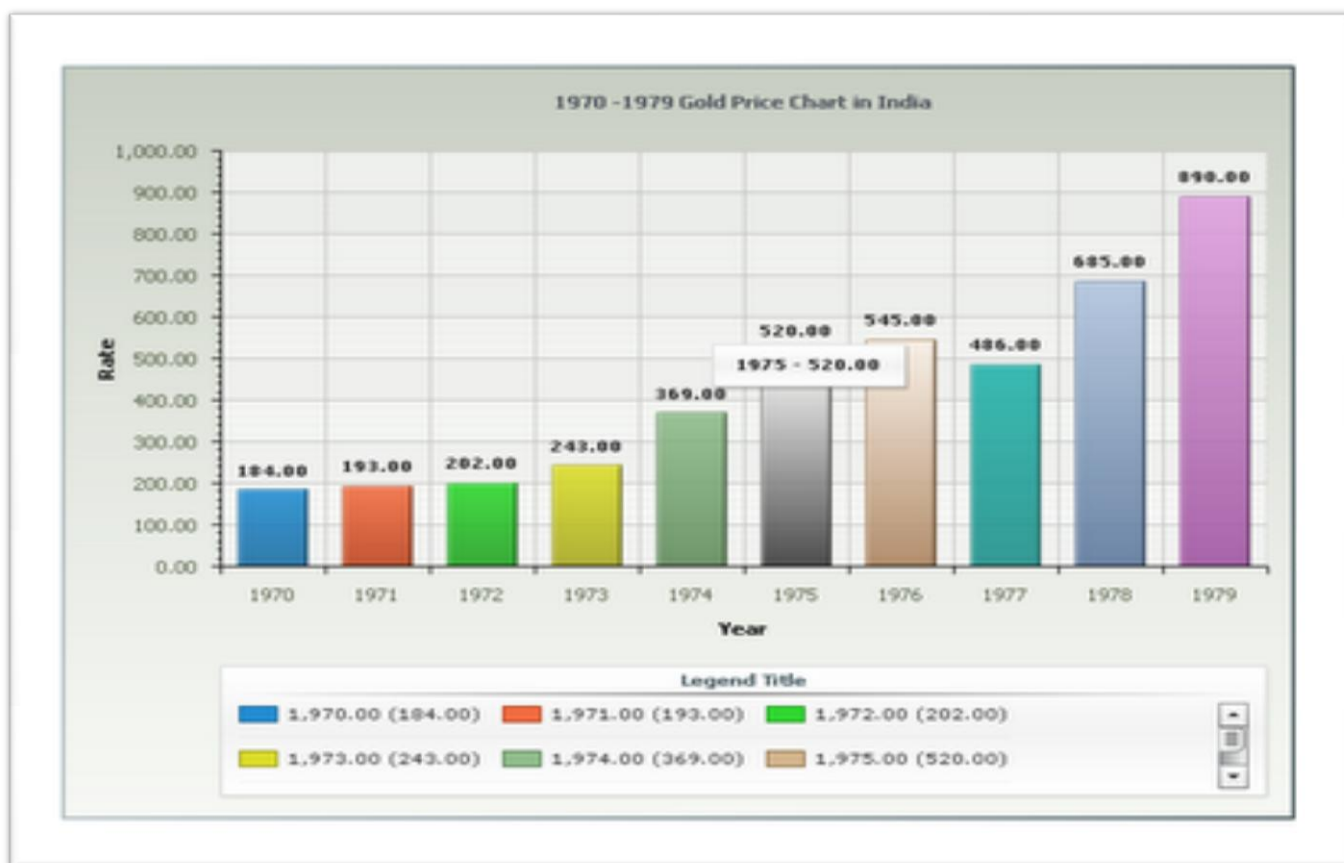


FIG 4: VOLATILITY OF GOLD PRICE DURING THE YEAR 1980 - 89

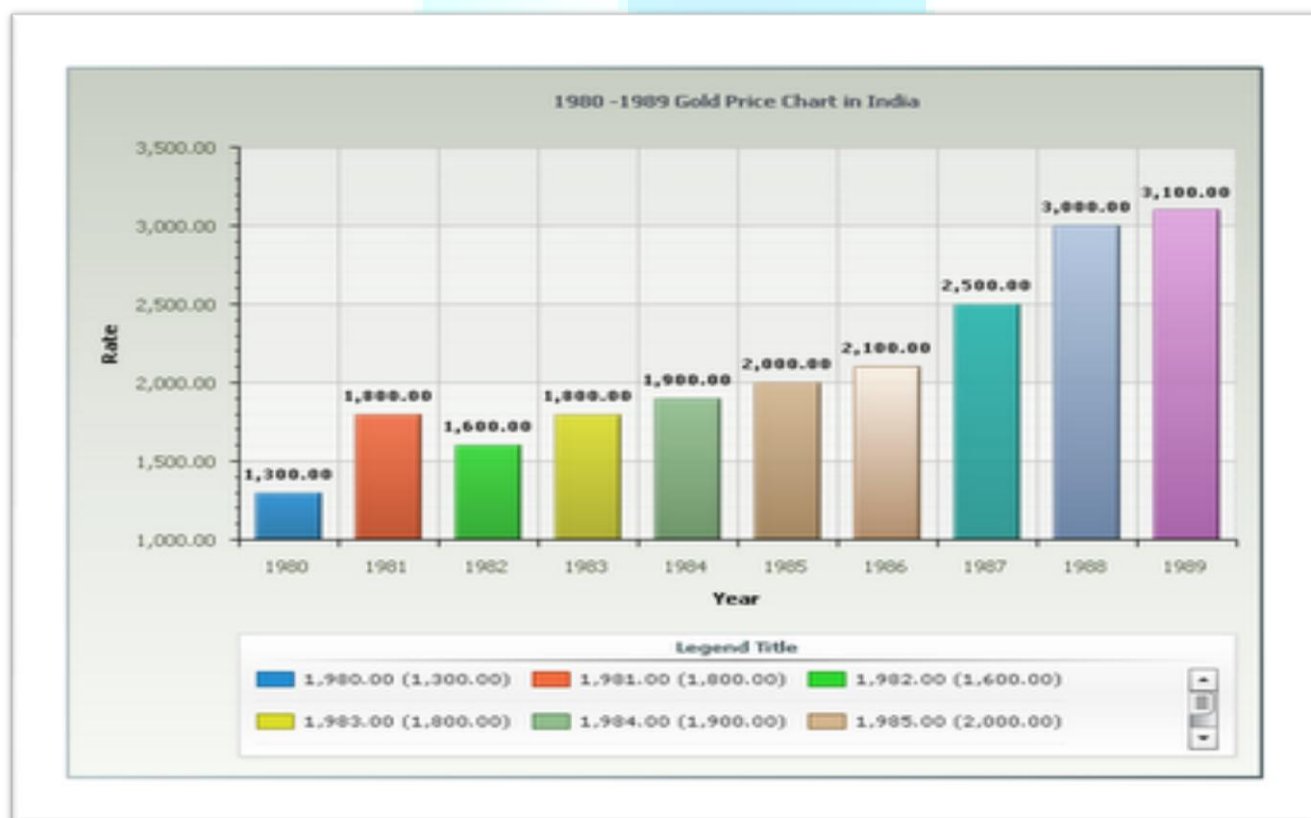


FIG 5: VOLATILITY OF GOLD PRICE DURING THE YEAR 1990 - 99

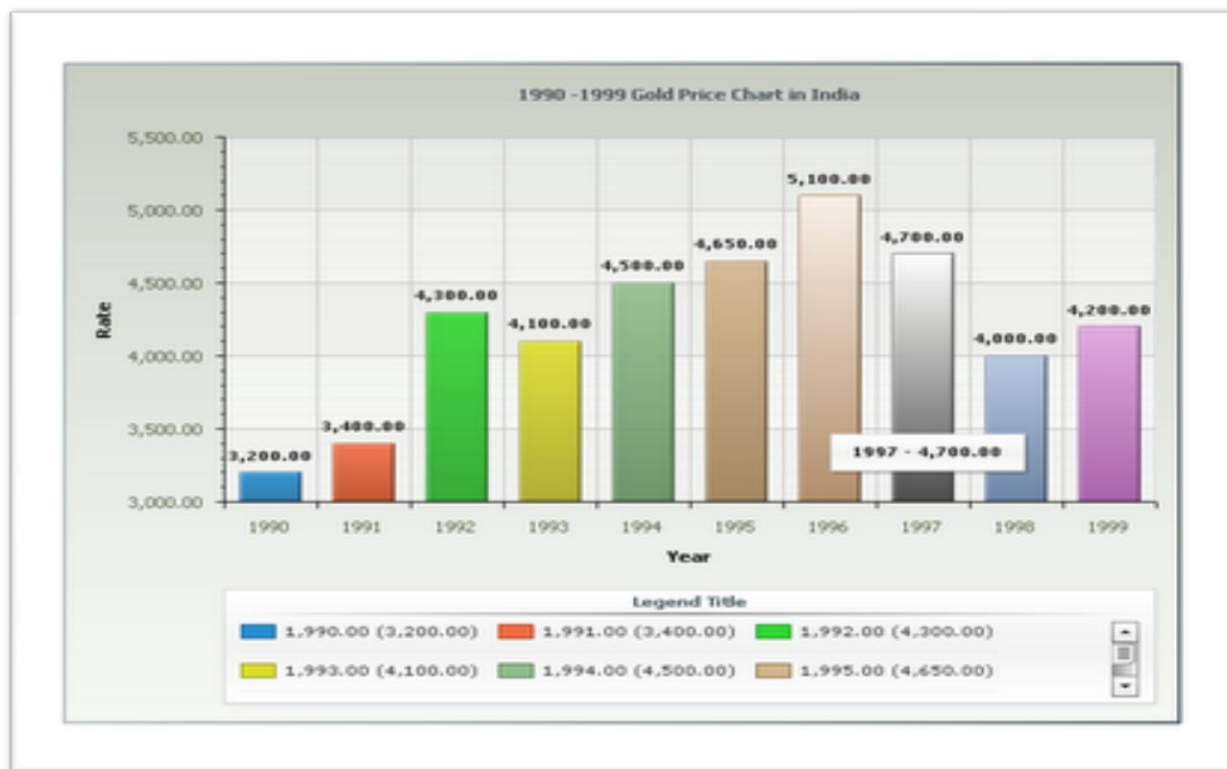
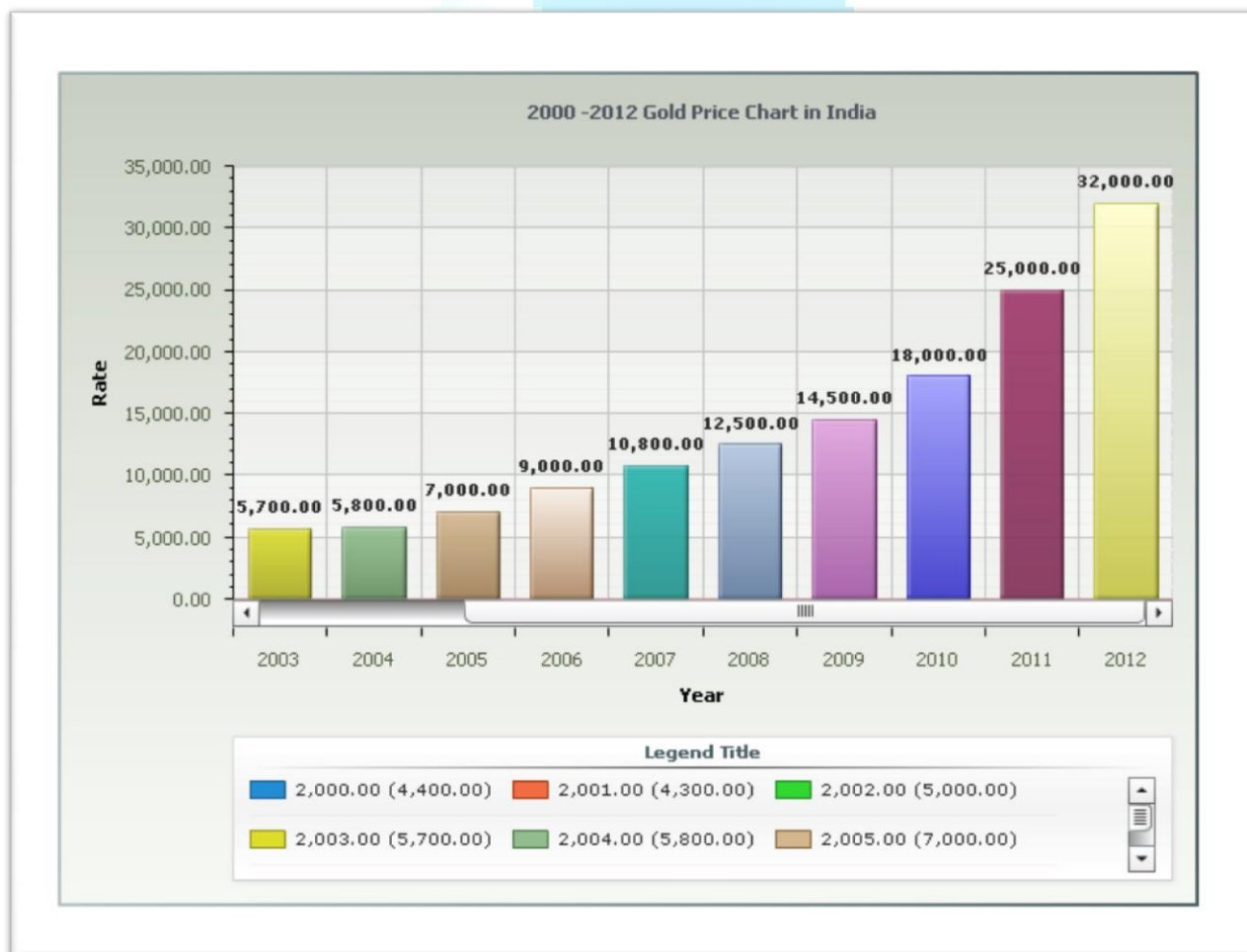


FIG 6: VOLATILITY OF GOLD PRICE DURING THE YEAR 2003 - 2012



CONCLUSION

From the above survey the gold price was fluctuating in nature. This fluctuation occur due to inflation and it affects the commodity market. In the year 2012 the Gold price become so high but it suddenly falls down which affect the commodity market because the demand of gold decreases in euro market. But this volatility is always short term. It is wise to invest in gold rather than share.

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A STUDY ON PERFORMANCE OF CONSUMER DISPUTES REDRESSAL AGENCIES IN STATE OF KARNATAKA

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ABSTRACT

This paper attempts to study working and performance of Karnataka State Consumer Disputes Redressal Commission and 30 District Consumer Disputes Redressal Forums working in Karnataka. Although disposal percentage of cases is satisfactory in both Karnataka State Consumer Disputes Redressal Commission and District Consumer Disputes Redressal Forums of Karnataka but, if we talk about disposal of cases with in stipulated time then performance of both Karnataka State Consumer Disputes Redressal Commission and District Consumer Disputes Redressal Forums of state is poor, which is a area of concern and necessary steps like creation of additional benches and filling vacant post of presidents and members must be done at the earliest to ensure quick justice to consumers.

KEYWORDS

Consumer protection, Karnataka, CDRA.

INTRODUCTION

Government of India enacted number of laws for protection of aggrieved consumers but, Consumer Protection Act, 1986 was one of the landmark Law which facilitated setting up Consumer Disputes Redressal Agencies at District, State and National level for providing simple, speedy and inexpensive redressal to aggrieved consumers and accordingly Karnataka Government has established Karnataka State Consumer Disputes Redressal Commission in state capital Bangaluru and District Consumer Disputes Redressal Forums in different districts of Karnataka to ensure speedy justice to consumers who are cheated by malpractices of marketers.

TYPE OF RESEARCH

The present study is descriptive cum exploratory in nature.

OBJECTIVES OF STUDY

It attempts to elaborate the state of affair of the cases filed/disposed of at the Karnataka State Consumer Disputes Redressal Commission and 30 District Consumer Disputes Redressal Forums working in state. The study points out various problems being faced by these Consumer Disputes Redressal Agencies and suggests their possible solutions.

RESULTS AND DISCUSSION

The following table will provide the details of cases filed/disposed of in the Karnataka State Consumer Disputes Redressal Commission as well as the District Consumer Disputes Redressal Forums of Karnataka:

TABLE 1.1: STATEMENT OF CASES FILED/DISPOSED OF IN KARNATAKA STATE CONSUMER DISPUTES REDRESSAL COMMISSION AND DISTRICT CONSUMER DISPUTES REDRESSAL FORUMS OF KARNATAKA (As on 31.12.2012)

Agency	No. of cases filed since inception	No. of cases disposed of since inception				Total disposal as on (3+4+5)	Disposal Percentage	Total No. of pending cases (Col. 2-6)
		Within 90 days	%	90 - 150 days	More than 150 days			
State C	4386	1292	29.46	213	2464	3969	90.49	417
Commission A	39981	10125	25.32	3889	21486	35500	88.79	4481
District Forums	154882	42899	27.70	31872	75367	150138	96.94	4744

Source: Unpublished records of Karnataka State Consumer Disputes Redressal Commission (2013)

- Analysis of Table 1.1 shows that 4386 original jurisdiction cases were filed since inception till 31.12.12 in Karnataka State Consumer Disputes Redressal Commission out of which 3969 cases (90.49%) were disposed of till 31.12.12. Statistics shows that only 1292 cases (29.46%) of 4386 cases filed were disposed off with in stipulated time as mentioned in Consumer Protection Act, 1986 as amended up to date.
- Analysis of Table 1.1 shows that 39981 appeal cases were filed since inception till 31.12.12 in Karnataka State Consumer Disputes Redressal Commission out of which 35500 cases (88.79%) were disposed of till 31.12.12. Statistics shows that only 10125 cases (25.46%) of 39981 cases filed were disposed off with in stipulated time as mentioned in Consumer Protection Act, 1986 as amended up to date.
- Analysis of Table 1.1 shows that 154882 cases were filed since inception till 31.12.12 in District Consumer Disputes Redressal Forums of Karnataka out of which 150138 cases (96.94%) were disposed of till 31.12.12. Statistics shows that only 42899 cases (27.70%) of 154882 cases filed were disposed off with in stipulated time as mentioned in Consumer Protection Act, 1986 as amended up to date.
- Although disposal percentage is satisfactory in both Karnataka State Consumer Disputes Redressal Commission and District Consumer Disputes Redressal Forums of Karnataka but, if we talk about disposal of cases with in stipulated time then performance of both Karnataka State Consumer Disputes Redressal Commission and District Consumer Disputes Redressal Forums of Karnataka is poor which is a area of concern and necessary steps like creation of additional benches and filling vacant post of presidents and members must be done at the earliest to ensure quick justice to consumers.
- The proposal regarding establishment of three District Forums at newly created three Districts u/s. 9(a) of Consumer Protection Act, 1986 is pending before the Government of Karnataka. Karnataka Government must give nod to this proposal to ensure speedy justice to consumers.
- Two post of members are vacant in Karnataka Consumer Disputes Redressal Commission. Karnataka Government must immediately fill these posts to ensure speedy justice to consumers.
- Twenty-Seven post of member are vacant in Bellary, Kodagu, Udipi, Bangalore Urban II Addl., Bangalore Urban, Mandya, Bangalore Rural and I Addl., Haveri, Dharwad., Raichur, Tumkur, Bangalore III Addl., Mysore, Bangalore IV Addl., Bidar, Chickmagalur, Gulbarga, Kolar and Uttara Kannada District Consumer Disputes Redressal Forums of Karnataka and Seven post of President are vacant in Kolar, Bidar, Hassan, Kodagu & Bangalore Rural and Urban I Addl., Chickmagalur and Bangalore Urban II Addl. District Consumer Disputes Redressal Forums of Karnataka. Karnataka Government must immediately fill these posts to ensure speedy justice to consumers.

CONCLUSION

This paper attempts to study working and performance of Karnataka State Consumer Disputes Redressal Commission and 30 District Consumer Disputes Redressal Forums working in Karnataka. Although disposal percentage is satisfactory in both Karnataka State Consumer Disputes Redressal Commission and District Consumer Disputes Redressal Forums of Karnataka but, if we talk about disposal of cases within stipulated time then performance of both Karnataka State Consumer Disputes Redressal Commission and District Consumer Disputes Redressal Forums of Karnataka is poor which is an area of concern and necessary steps like creation of additional benches and filling vacant post of presidents and members must be done at the earliest to ensure quick justice to consumers.

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THE LONG RUN RELATIONSHIP BETWEEN STOCK MARKET RETURNS AND INVESTMENT GROWTH IN NIGERIA: (1960 - 2010)

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ABSTRACT

The movement in the stock prices is an important factor that determines investment behaviour in both advanced and less developed economies. This study examines the long run relationship between stock market returns and investment growth in Nigeria. Annual data from (1960 – 2010) were used in this study. The results revealed that there exists a short run relationship between stock market returns. Investment growth and stock prices are negatively related to investment and inflation, while, interest rate has a positive relationship with stock prices. The granger causality test was carried out and it revealed a bi-lateral causality that runs from stock market returns to investment growth and from investment growth to stock market returns. The impulse response graph was further used to ascertain the impact of these variables on stock prices.

KEYWORDS

Investment, stock, inflation, interest rate, market.

INTRODUCTION

Stock market is a major component of the capital market. An organized and managed stock market stimulates investment opportunities by recognizing and financing productive projects that lead to economic activity, mobilize domestic savings, allocate capital proficiency, help to diversify risks, and facilitate exchange of goods and services (Mishkin 2001 and Caporale et al, 2004). Stock markets are expected to increase economic growth by increasing the liquidity of financial assets, make global and domestic risk diversification possible, promote wiser investment decisions, and influence corporate governance. (Vector, 2005). In addition, stock markets are best indicator to forecast future economic activity and describe actual causal effect between future economic growth and stock prices. On the contrary, the relationship between stock market development and real economic growth can be explained as any change in stock market will eventually change the cost of rental capital. If the firms cost of borrowing will become high as compared to investment, it slows down the growth of the economy.

Empirical evidence has shown that stock markets play an important role in allocation of capital to corporate sector which in turn stimulates real economic activities. Many countries were facing financial constraints particularly developing countries, where bank loans are restricted to some favourable groups of companies and personage investors. This limitation can also reflect constraints in credit markets (Mirakhor & Villanueva, 1990).

There is no doubt that the function performed by the capital market determines, to a large extent the amount of capital supplied for investment. They argued further that capital markets channel savings into investment returns at a given level of risk. If there were no risk, fund would be allocated when the interest rate is uniform in all uses. It also creates a continuous market for immediate sales or purchase of investment at prices determined by their value where supply and demand forces enable investors who have such marketable securities to maintain continuous liquidity, as they are not obliged to holding them indefinitely (Remeth and Ronald (1977))

Osinubi (2010) stresses that, Effective and efficient resource mobilization in an economy foster sustainable growth and development, therefore funds must be effectively mobilized and allocated to enable the economy realize optimal output. The stock market in an economy promotes efficiency in capital formation and allocation. Numerous attempts by emerging stock markets to develop the financial sector have been evident in the recent past, as they strive towards market efficiency Rajni and Mahendra (2007). An efficient stock market, acts as a barometer to economic growth. Policy makers therefore rely on market estimates of volatility as a barometer of the vulnerability of financial markets. However, the existence of excessive volatility, or "noise," in the stock market undermines the usefulness of stock prices as a "signal" about the true intrinsic value of a firm, a concept that is core to the paradigm of the informational efficiency of markets (Karoilyi, 2001).

Stock market is an integral part of the financial system that provides an efficient delivery mechanism for mobilization and allocation, management and distribution of long-term funds (Alile and Anao, 1986). It facilitates the flow of funds from the area of surplus funds to the area of needs; canalization of funds from those who desire to invest to those who need it for economic endeavors. Apart from judicious mobilization of idle savings into productive use; the stock market creates an avenue for foreign investment and the influx of foreign capital for developing projects that increase the welfare of citizens.

According to Kenneth Ronald (1970), long-term financing of investment is a form of finance with maturities that extend beyond the period of five years. The stock market is important to investors as far as the mobilization of long-term funds for investment growth. The services of stock markets are rendered to investors and investment is the means through which operations of stock market is promoted. The services of the stock market fall into three parts namely: advisory, investment and planning. There has been an astronomical rise in stock returns in recent years, which has attracted so many to the market. Investment in the stock market has been necessitated by existence of unfavourable economic conditions in Nigeria.

- 1) Is there a long run relationship between the All Share Index and other macroeconomic variables such as investment growth, interest rate and inflation in Nigeria;?
- 2) Does investment growth have any causal relationship with stock market returns?
- 3) Does stock prices exhibit any form of impulse response relationship with investment growth, interest rate and inflation?

OBJECTIVE OF THE STUDY

- 1) To ascertain, whether there exists a long run relationship between the All Share Index (which is used as a proxy to stock market returns) and the core independent variable; investment growth in Nigeria together with interest rate and inflation.
- 2) To determine if investment growth has any causal relationship with stock prices.
- 3) To determine the response of stock prices to shocks in investment growth, interest rate and inflation.

STATEMENT OF HYPOTHESIS

H₀₁: Stock market returns have no long run relationship with investment growth, interest rate and inflation.

H₀₂: Investment growth has no causal relationship with stock prices.

H₀₃: stock prices does not exhibit any form of impulse response relationship with investment growth, interest rate and inflation.

LITERATURE REVIEW

The theoretical literature behind this work is essentially derived from the random walk theory, capital asset pricing model and the efficient market hypothesis (being theories backing stock market returns) and James Tobin's *q* theory, Keynesian theory and accelerator theory of investment (being theories backing investment). The theory that stock prices move randomly was early proposed by Maurice Kendall in his 1953 paper "the analytics of economic time series." Maurice Kendall examined this proposition in 1953. He found to his great surprise that he could identify no predictable pattern in stock prices, Prices seemed to evolve randomly. They were as likely to go up as they were likely to down on any particular day regardless of past performance. The data provided no way to predict price movement.

Capital Asset Pricing Model (CAPM) was developed in an articles by William Sharpe, John Litner and Jan Mossin in 1964, as a centerpiece of modern financial economies. The model gives us a precise prediction of the relationship that we should observe between the risk of an asset and its expected return. This relationship serves two vital functions. First, it provides a benchmark rate of return for evaluating possible investments. Secondly, it helps us make educated guess as to the expected return on assets that have not yet been traded in the marketplace.

The efficient market hypothesis (EMH) states that it is impossible to consistently outperform the market by using any information that the market already knows, except through luck. Efficient Market Hypothesis asserts that financial market are "information efficient" or those prices on traded assets, for example, stocks, bonds or property already reflects all known information. The efficient market theory of stock returns uses the concept of rational expectation to reach the conclusion that when properly adjusted for discounting and dividend, stock prices follows a random walk.

James Tobin formulated an investment theory based on financial markets. Tobin argued that firms' investment level should depend on the ratio of the present value of installed capital to the replacement cost of capital. This ratio is *Tobin's q*. The *q* theory of investment argues that firms will want to increase their capital when $q > 1$ and decrease their capital stock when $q < 1$. If $q > 1$, a firm can buy one dollar's worth of capital (at replacement cost) and earn profits that have present value in excess of one dollar. Under those conditions, firms increase profits by investing in more capital, so we expect investment to be high.

Keynes began by rejecting the classical assumption that the economy automatically reverts to full employment quickly and reliably. Under conditions where markets do not clear, he argued, a shortage of aggregate demand may prevent the economy from producing at full capacity. Since investment is the component of aggregate demand that falls most strongly in business-cycle downturns, it was a natural candidate for Keynes in his search for the causes of these declines in demand. This theory asserts that investment is the result of firms balancing the expected return on new capital (we call it the marginal product of capital); he called (the marginal efficiency of capital) with the cost of capital, which depends primarily on the real interest rate, Malcolm Spittler (2002).

In an empirical study conducted by Ralph and Eriki (2001) on Nigerian stock market, they found that there exists a negative relationship between stock prices and inflation. Besides, they also show that the stock prices are also strongly motivated by the level of economic activity measured by GDP, interest rate, money stock, and financial deregulation. To examine the role of stock market in promoting economic growth, Osunubi (2004), using data between 1980 to 2000, and employing the least square method, found that although the stock markets in Nigeria enjoys a positive relationship with the economy's growth rate, its effect on the Nigeria economy is weak. Ezeoha, et al (2009) investigated the nature of the relationship that exists between stock market development and the level of investment (domestic private investment and foreign private investment) flows in Nigeria. The study discovered that stock market development promotes domestic private investment flows, thus suggesting the enhancement of the economy's production capacity as well as promotion of the growth of national output. However, the results show that stock development has not been able to encourage the flow of foreign private investment in Nigeria.

THE MODEL

The methodology that will be used in this research work is the Vector Autoregressive (VAR) model. Unit root and cointegration tests were carried out as pre-estimation tests to determine the possibility of transforming the model to Vector Error Correction.

The VAR process of order k is given as;

$$Y_t = \sum_{i=1}^k \phi_i Y_{t-i} + \epsilon_t$$

Where Y_t is an $L \times 1$ vector of innovations, and ϕ_i $\{i = 1, 2, \dots, k\}$. In this case, $L = 4$ and $Y_t = \{ASI, INV\}$ where each variable denotes All share Index (ASI) and Investment growth (INV) respectively.

Equation (1) can be re-written to capture individual equations in accordance with the synthesis of the mainstream and ecological economic models of economic growth. In line with this theory, the variables of interest include All share Index (ASI), Investment (INV), Interest Rate (INTR) Inflation (INFL), and Money supply (MS) as recommended by the ecological economic models.

CAUSALITY TESTS

In analysing Granger-Causality relationships, our main interest is to find the lead/lag relationship between variables. The Granger (1969) approach to the question of whether X causes Y is to determine how much of the current Y can be explained by past values of Y , and then to see whether adding lagged values of X can improve the explanation. Y is said to be Granger-caused by X if X helps in the prediction of Y , or if the coefficients on the lagged X s are statistically significant. Note that two-way causation is frequently the case: where X Granger-causes Y and Y Granger-causes X .

Hypotheses:-

H₀: $\gamma_i = \psi = 0$ for all i 's

H₁: $\gamma_i \neq 0$ and $\psi \neq 0$ for at least some i 's.

Now the criteria for causality will be examined. The hypothesis would be tested using chi-square (χ^2) statistics. If the values of the γ_i coefficient are statistically significant but those of the ψ are not, then X causes Y ($X \rightarrow Y$). On the contrary, if the values of the coefficients are statistically significant but those of the coefficient are not, then Y causes X ($Y \rightarrow X$).

THE AUTOCORRELATION TEST

The relevant LM statistic is given as:

$$QLM = T \{K - \text{tr}(\hat{\Sigma}^{-1} \hat{\Sigma}_e)\} \dots$$

It has an asymptotic χ^2 (hk) distribution under the null hypothesis for both (0) and 1 (1) systems (Bruggeman et al, 2006).

The quantity e_t denotes a white noise error term. The hypothesis Testing is as follows:-

H₀: No serial correlation at lag order h , that is $\beta_1 = \dots = \beta_h = 0$

H₁: No serial correlation at lag order h , that is $\beta \neq 0$ for at least one $i \in \{1, \dots, h\}$ is called for.

Decision Rule: Reject H₀ if p -value is less than level of significance, do not reject if otherwise.

THE IMPULSE RESPONSE FUNCTION

VAR models are difficult to interpret. One solution is to construct an impulse response function (IRF). The IRF traces the response of the endogenous variables to one-standard deviation shock to one of the disturbance term in the system. This shock is transmitted to all of the endogenous variables through the dynamic structure of the VEC models (Lutkepohl, 2001).

We can express the equation (1) in a vector moving average (MA) form such as

$$Y_t = \sum_{i=0}^{\infty} A_i \varepsilon_{t-1} + \sum_{i=0}^{\infty} G_i D_i$$

$t = 1, 2, \dots, T$

SOURCES OF DATA

The data used in this work were gotten from CBN statistical bulletin. All Share Index was transformed from monthly to annual data (this was done by dividing the total of each year by 12 to get the average). The researcher employed software packages such as Microsoft-excel and stata.

PRESENTATION OF RESULTS

UNIT ROOT

Investment and Inflation were stationary at level form at 1%, 5% and 10% level of significance (5.362 [-2.958] **) and (10.686 [-2.958] **) respectively while All Share Index (ASI) and Interest Rate were stationary after first difference with their ADF value at level form being (-1.070 [-2.958] **) and (-1.981 [-2.958] **) and their first difference values being (-5.595 [-2.961] **) and (-9.739 [-2.961] **) respectively. Thus, All Share Index and Interest Rate are integrated of order one. On the basis of this, the null hypothesis of non-stationarity is rejected and it is safe to conclude that the variables are stationary.

COINTEGRATION TEST

Since the results of the unit root test above confirm stationarity of the variables at level form with the exception of ASI and INV which were stationary after being differenced once, the Johansen methodologies can then be apply in testing for cointegration (Johansen, 1988, 1991, 1992; and Johansen and Juselius, 1990).

An optimal lag length of two (2) for the variables (ASI, INV, INFL, AND INTR) was chosen.

The value of the Trace Statistics at lag length two is 12.0562 and the 5% critical value is 15.41. Since the $|\tau_{cal}|$ is less than the $|\tau_{tab}|$ at the 5% level of significance, the null hypothesis of no cointegration will be accepted. Accordingly, All Share Index, Investment, Inflation and Interest Rate are said not to be cointegrated at 5% level of significance. As a result, there is no long-run relationship between, Stock Market Returns and Investment Growth in Nigeria for the sample period.

INTERPRETATION OF VAR REGRESSION RESULT

VARIABLE	COEFFICIENT	T VALUE	P VALUE
CONSTANT	324.6773	0.39	0.700
INV	-1.115219	-3.35*	0.000
INFL	-0.1914318	-1.06	0.287
INTR	0.419035	2.70*	0.007

* indicates that the t-stat is statistically significant at the 5% level.

Thus:

$$ASI = 324.6773 - 1.115219INV - 0.1914318INFL + 0.419035INTR$$

This is the short run cointegrating equation. According to the above equation, stock prices (ASI) showed a negative relationship with Investment. Using 2t rule of thumb, investment is said to be statistically significant at 5% level of significance with the probability of 0.000.

Also, inflation rate is negatively related to the Stock Market Returns (ASI). This suggests that the market does not act as a hedge to inflation. Using 2t rule of thumb, inflation is said to be statistically insignificant at 5% level of significance with the probability of 0.287. Humpe and Macmillan (2009) discovered the same. Stock prices (LASI) showed significant short run positive relationship with interest rate in the short run because investors raises the amount of stocks when interest rates rises and also the rise in interest would mean higher borrowing cost for quoted companies therefore reducing their profit potential. Sulaiman D. Mohammad et al (2009) reported similar results.

GRANGER-CAUSALITY TESTS

In terms of All Share Index (ASI), The null hypothesis of *INV does not Granger cause ASI* is rejected at the 5percent level of significance where the value of F-statistics (α_2i) is 126.43 with probability 0.000. Also, The null hypothesis of *INFL does not Granger cause ASI* is rejected at the 5 percent level of significance where the value of F-statistics (α_3i) is 152.85 with probability 0.000. The null hypothesis of *INTR does not Granger cause ASI* is accepted at the 5 percent level of significance where the value of F-statistics (α_4i) is 2.0073 with probability 0.367.

In terms of Investment (INV), The null hypothesis of *ASI does not Granger cause INV* is rejected at the 5 percent level of significance where the value of F-statistics (β_2i) is 19.304 with probability 0.000. Also, The null hypothesis of *INFL does not Granger cause INV* is accepted at the 5 percent level of significance where the value of F-statistics (β_3i) is 3.983 with probability 0.136. The null hypothesis of *INTR does not Granger cause INV* is accepted at the 5 percent level of significance where the value of F-statistics (β_4i) is 0.49433 with probability 0.781.

In terms of Inflation (INFL), The null hypothesis of *ASI does not Granger cause INFL* is accepted at the 5 percent level of significance where the value of F-statistics (λ_3i) is 0.73752 with probability 0.692. The null hypothesis of *INV does not Granger cause INFL* is rejected at the 5 percent level of significance where the value of F-statistics (λ_2i) is 7.0825 with probability 0.029. The null hypothesis of *INTR does not Granger cause INFL* is rejected at the 5 percent level of significance where the value of F-statistics (λ_4i) is 6.7722 with probability 0.034.

In terms of Interest Rate (INTR), The null hypothesis of *ASI does not Granger cause INTR* is accepted at the 5 percent level of significance where the value of F-statistics (σ_4i) is 0.00905 with probability 0.995. The null hypothesis of *INV does not Granger cause INTR* is accepted at the 5 percent level of significance where the value of F-statistics (σ_2i) is 0.36477 with probability 0.833. The null hypothesis of *INFL does not Granger cause INTR* is accepted at the 5 percent level of significance where the value of F-statistics (σ_3i) is 0.30062 with probability 0.860.

AUTOCORRELATION TEST

The p-value at lag length two is 0.13804. Since the p-values are greater than the 5% level of significance; H_0 will not be rejected, which means that there is no serial correlation at lag order h.

IMPULSE RESPONSE FUNCTION

A shock in Investment led to a positive increase in stock prices from the first period to the tenth period. Also, shocks in Inflation led to an increase in stock prices in the first period and then, it fluctuates in the third and fourth period and all through the entire period of study. A shock in interest rate is insignificant in the first, second and third period but becomes increasing significant beyond the third period.

CONCLUSION

Emanating from the research findings, it can be deduced that external shock and other macroeconomic variables dictates the movement of stock market prices performance and volatility, and some of these key variables are the significant determinants of the stock market performance in Nigeria during the reviewed period.

The result of this study shows that there exist a short run relationship between Stock Market Returns and Investment Growth in Nigeria. It was also gathered that there exist a negative relationship between stock prices and investment and even inflation.

POLICY RECOMMENDATIONS

We have found out that the market adjusts very quickly to short run equilibrium. This is obvious considering the amount of transactions that takes place daily in the market.

The following policy options are recommended to bring about enhanced stock market performance amidst macroeconomic fluctuations and external forces:

The securities exchange commission (SEC) should create a special fund called "stabilization securities fund" to stabilize the market in the presence of external shocks. This is to make the market attractive to proposed, existing and foreign investors.

We recommend the Nigerian Stock exchange to make available readily all data that investors need to play a role in the market such as the credit rating of companies that want to float bonds (borrow) on the exchange. This is because the unavailability and inaccessibility of such data increases the probability of information asymmetry.

The standard of living of the citizens as measured by Per Capital Income (PCI) should be increased by providing essential infrastructural community facilities in order to increase the ability of the people to invest in the Nigerian capital market.

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THE EFFECT OF PENSION FUNDS ON THE GROWTH OF NIGERIAN ECONOMY**SAMUEL, KEHINDE OLUWATOYIN****LECTURER****DEPARTMENT OF ACCOUNTING & FINANCE****AJAYI CROWTHER UNIVERSITY****OYO****OKE, MARGARET ADEBIMPE****LECTURER****DEPARTMENT OF ECONOMICS****AJAYI CROWTHER UNIVERSITY****OYO****ABSTRACT**

This work evaluates the effects of pension funds on the growth of Nigerian economy. Pension funds are ranked among the largest institutional investors in developed countries by assets under management. According to the Organization for Economic Cooperation and Development (OECD), pension funds assets in six of the non-emerging OECD countries amounted to \$8.5 trillion in 2001. Thus the main thrust of this study is to analyze the role of pension funds as an institutional investor on emerging market for the period 1970-2010 using Nigeria as a case study. The data used in this study are time series. A stationary test was conducted to know their various levels of stationary (levels of integration). Ordinary Least Square (OLS) was later conducted based on the data derived after this test. This is because the data of the variables were stationary at both levels and at difference. During the course of the estimation and analysis, it was discovered that the major determinants of real GDP is the physical capital of the economy. It therefore suggests that the federal government should aim at providing more capital which will increase the level of growth in the country. It was also discovered that there was an insignificant relationship between pension funds and economic growth. This could be attributed to the poor economic conditions, unstable financial sector, lack of commitments on the part of the government, high rate of corruption and lack of trust worthiness within the system which could be corrected if proper policies are put in place and been fully implemented. Investment portfolios of pension funds should also be diversified towards private and international instruments in order to reduce risk. Also, pension reforms should needs to be complemented with other reforms in the economy such as social security, labour market and financial sector in order to have an overall effect on the economy. Finally, policies should be formulated towards the integration of the defined benefits and defined contributions plan and work towards institutionalizing the multi-pillar system of the economy.

KEYWORDS

Effect, Pension Funds, Growth, Nigerian Economy.

1.0 INTRODUCTION

The term "pension funds" is a major component of retirement for individuals. They are long term investing institutions whose purpose is to accumulate assets, the income from and capital values of which are used to pay for the pensions of retired workers. Therefore, Pension funds can be categorised into defined-benefit and defined-contribution pension plan. A defined benefit pension plan promises to pay a retiree a specific income after retirement bases on final salary and the length of service, while a defined contribution pension plan does not promise any set benefit instead employees' benefit depends on the size of the contribution they made into the pension fund and returns earned on the investment.

Most developed economic system has three components of pension system which are: Firstly, state pension which aims at providing a basic retirement income for everyone and are financed from tax receipts. Pension which are financed from current revenues are referred to as Pay-As-You-Go pensions. Secondly, are the pensions arranged by the employers which are usually called occupational pension and maybe operated on a Pay-As-You-Go basis or may be funded. The funded scheme refers to the accumulation of investments which would be used to finance the pension and finally, pension funds which are financed on a voluntary basis.

In recent years, most advanced countries have experienced a rapid growth of pension funds as institutional investors, most especially pension reforms shifting the finance of retirement income from Pay-As-You-Go to funding. For all countries, the ongoing ageing of the population and financing difficulties of Pay-As-You-Go system suggest that pension reforms will become yet more common in the future leading to further growth in pension funds (Davis 2005)

The current global demographic shift towards an aging population greatly reflects a rising life expectancy and declining fertility which has led to many countries around the world to re-think about their pension system (Munnell 2004). The pension market in OECD countries has experienced a dramatic increase in pension assets. For instance, the UK pension assets were equivalent to 1156 billion in 1980 which was 21.5% of GDP, but increased to 1226.2 billion in 1980 which was about 85% of GDP (OECD 2003).

The major aim of this research is to address the impact of pension fund as an institutional investor in the financial development and trace the effect of such financial development on the economic growth and performance of Nigeria. To this end, the paper is structured into five major parts. Section one is the Introduction, section two which follows this introduction present, the literature review, section three discusses the methodology, while section four contains data presentation and analysis and section five presents the conclusion and some recommendations.

2.0 CONCEPTUAL FRAMEWORK

The growth of pension fund industry has a great implication for emerging market asset class. Considering asset under management, pension fund asset in the developed economies greatly exceeds the capitalization of external and domestic emerging markets. The domestic pension fund industry in the emerging market economies is rapidly becoming a major source of domestic financing and has the potentials to shape the future evolution of domestic markets.

According to Redhead (2008), he asserted that the most dominant form of institutional investment is the pension funds which are built up during the working life of the investor and can be used to finance an income during retirement. The Company in which the person works might operate it on their behalf. The company invests over time to build up a fund that is used to provide to provide a retirement income for its employee.

It is very essential to analyse the role and impact of pension funds as an institutional investment on the financial markets and the economy as a whole and also to determine whether policy actions can facilitate the improvement of cost and benefit balance.

Mixed reaction's about the sustainability of the pay-as-you-go systems has prompted government to search for alternative approach to providing retirement income rather than implementing temporary fixes such as increasing contribution rates, raising the retirement age, or cutting benefit levels. Chan-Lau (2004)

The pay-as-you-go system has been gradually replaced with the fully funded system so that retirement income would be fully financed by investing the pension plans members' contributions in financial assets. The fully funded system has been adopted to a great extent by developed countries like the United Kingdom and the United States than continental European countries.

Holzmann and Hinz (2005) opined that the financial market effect is of utmost importance given that a well developed and structured financial markets are a critical pillar of a market based economy because they facilitate and mobilize savings, allocate price risk, absorb external risk shocks which serves as a form of self insurance against volatile capital flows and also fosters good governance through market based incentives.

2.1 PENSION FUND AND ITS IMPACT ON FINANCIAL AND ECONOMIC GROWTH

This section focuses on how pension fund as an institutional investor may assist in financial and economic development. This relates to how pension fund may help improve the functioning of the financial system as well as its stability and efficiency.

Savings as been regarded as one of the keys that facilitates pension fund growth. It has been asserted that pension reforms can help accelerate the overall saving of the economy which in turns promotes economic growth by allowing higher rates of investment. Reisen and Bailliu (1997) in their studies used data from 11 countries between 1982-93 using both advanced countries and EMEs and observed that the reforms on personal saving is 8 times larger for EMEs which have more imperfect capital markets when compared to developed countries.

According to Estelle James (1996) who is the principle author of "Averting the Old Age Crisis" in his book argued that a major advantage of World Bank multi-pillar model is that national saving and personal saving could be boosted. Holzmann (1997) opined that any positive effect of pension fund growth on personal saving could be offset at the level of national saving by the impact on public finances of the costs involved in the transition to a privately funded system.

Cesaratto (2003) posed a question as to whether the growth of pension funds raises national saving, having the knowledge that governments need to finance their existing pension liabilities through debt and taxes. The public savings would decrease if the government tries to finance implicit pension debt by public debt issuance which may lead to the overall national saving to be unchanged or even fall. Schmidt-Hebbel (1999), according to his estimate, posits that 10% to 45% of the rise in Chile's national saving after the pension reform occurred could be attributed to pension reforms and the rest could be attributed to structural reforms.

Samwick (1999) in his work using a panel of countries observed that no countries except Chile witnessed an increase in gross national saving rates after pension reform towards non- PAYG system. According to Davis and Hu (2004), pension reforms which introduced elements of funding do have a have a positive impact on financial market development due to the fact that following such pension reforms, there is an improvement in the function of the financial markets.

Concentrating on emerging market economies (EMEs), pension funds can reduce the cost of capital through three channels. The first channel is that pension reforms would lead to more developed capital market which would make issuing securities cheaper. The second channel is allowing for short-term performance evaluation, the expected investment time horizon of pension is longer than that of individual and firms which in turns reduces the "term premium" (Davis and Steil 2001). Lastly, pension funds, pooling and professional management reduces equity risk premium. (Walker and Lefort 2002)

Impavido et al (2003) observed that a positive relationship exist between contractual saving assets and bond market capitalization/GDP. This suggests that a positive relationship between pension fund growth and financial development and financial development can be positively associated with economic growth. (Levine and Zervos 1998; Beck and Levine 2004) asserted that pension funds enhance economic growth through its impact on financial development. Hu (2005) showed in a panel error correction model growth that pension fund growth stimulates private bond finance, most especially in developing countries both in the short and long run.

Pension fund is also likely to accelerate qualitative developments in financial market which may further be beneficial to economic growth by promoting better resource allocation. One qualitative improvement is financial improvement, which EMEs may include equities per se, junior markets, securitisation, corporate bonds, CDs, derivative markets and indexed instrument. (Tsetsekos and Varangis 1997).

It has been said that pension fund has the tendency to improve corporate governance. Clark and Hebb (2003) identified four drivers which pension funds' corporate engagement which they see as for shadowing the so called "Fifth Stage of Capitalism". The first driver is the widespread use of indexation technique in the pension fund industry. The second driver is the increasing demand by owner for a more transparency and accountability. The third driver is the pension fund pressure to undertake socially responsible investing (SRI) and lastly, the pressure to humanize capital with social, moral and political objectives extend pension funds' simple concern for rate of return.

A survey carried out by Schleifer and Vishny (1997) shows that the development of equity markets and their dominance by pension funds would not just have an implication on corporate finance with lower debt equity ratios but also for corporate governance, thereby implying a greater degree of control by capital markets and pension funds.

There has been a well documentation of the positive impact of pension fund activism on corporate performance at the firm level but the empirical work was largely focused on the United States. Davis (2002) expressed dissatisfaction by arguing that complementary studies at the macro level are needed in the effects of governance initiatives from institutions may go wider than the target firm to the whole economy.

2.2 PENSION FUNDS IN EMERGING MARKETS

The United Kingdom and United States pension fund does not view emerging markets as a separate asset class or an alternative investment opportunity; instead they view emerging market asset class as one smaller subcomponent of all the continuum of traditional investment opportunities. Also pension funds in the United Kingdom who invest in emerging market fixed income securities use relative weight in global bond indices such as Citigroup's World Government Bond Index (WGBI), as an asset allocation guideline.

Low interest rate and dismal stock performance experienced in the European countries and the United States during the past few years has partly prompted the interest in emerging markets (Bloomberg 2003). The introduction of innovative investment vehicles such as principle protected notes and hybrid fixed income mandates have helped in facilitating investment opportunities in emerging markets. Collateralized Debt Obligation (CDOs) backed by emerging market securities have also enjoyed increased popularity recently (Humphries 2002)

It is been said that hedge funds also offer another investment vehicle for pension funds interested in increasing their exposure to emerging market. However there are some challenges to increase hedge fund allocations. The absence of transparency in hedge funds' investment strategies makes selecting a hedge fund difficult. Moreover, the size of most hedge funds is too small for the pension fund industries need (The Economist, July 3, 2003)

In Latin America and Eastern Europe, pay-as-you-go security systems are being gradually substituted by funded, defined-contribution pension system. Generally, pension funds systems is compulsory for young people entering the work force, and optional for workers already covered by the pay-as-you-go system. However, incentives have been provided by the government to help easily facilitate the transfer from the old system to the new system.

As a result of these reforms, there has been a rapid growth of pension under management in the pension fund industry. For instance, Chile pension assets grew to almost 60 percent of GDP in 2003 compared to the early 1980s. Also, Bolivia's pension assets now amounts to 30 percent of GDP after it introduced pension reforms six years ago.

Reisen (2000) opined that by removing the government from the savings for retirement process, pension reforms has contributed to increasing the saving rate, accelerating the growth of institutionally managed asset, and creating a strong domestic investor base which has helped improved the development of securities market. In Latin America and Eastern Europe, the growth of pension asset has outpaced the growth of securities market. This situation poses a significant challenge for pension funds that must deal with portfolio risk concentrated in a few corporate names and government securities.

2.3 PENSION FUNDS IN NIGERIA

The issue of pension funds in Nigeria has become one of the thorniest issues facing the country today with millions of retired Nigerian people living in abject poverty and are been neglected as a result of the country's pension system (Osakwe 2004).

Due to the fact that the highest number of the labour force within the formal sector of the economy is been employed by the Federal Government of Nigeria, the government has increasingly witnessed challenges in meeting its obligations to its workers both serving and retired.

According to Ihonvbere (2004), who was the Special Adviser to the President on Policy and Programmes Monitoring, asserted that despite efforts being made by the Federal Government to mop the pension backlog, it still owes about =N=2 trillion (naira) to its workers. He also estimated the monthly pension bill of the Nigerian Railway to be at =N=250 million (naira) with a monthly wage bill of =N=210 million (naira).

In December 2005, the director-General of the newly established National Pension Commission estimated the Federal Government's pension liability at =N=2.56 trillion, out of which the retired federal ministry and parastatals workers where been owed =N= 2 trillion, while the accumulated pension arrears for military, police and paramilitary retirees was estimated at =N= 56 billion.

This has been the major reason why many pensioners for an unending queue at various designated centres, with the sole aim of collecting their pension payment which sometimes results to report of deaths on long queues which could be attributed to exhaustions and other related causes.

2.4 PENSION REFORMS AND ITS ROLE ON THE NIGERIAN ECONOMY

The pension reform has created a platform for the Nigerian Federal Government to realise other reform programs necessary to facilitate economic growth. Without long term funds, there would not be a significant development in the much needed sectors of the economy such as power, ports, education, telecommunication, social and infrastructural development as well as other sectors that require reforms in order to accelerate economic growth.

The main aim of the proposed pension reform is to improve the standard of living of workers after they retire from work. The effects of the reform will affect the economy gradually by increasing the liquidity when the contribution takes off. An increased level of liquidity gives financial institutions the ability to invest in long term investment in expectation of a higher return. Moreover, an increase in the rate of savings will lead to low interest which would boost organisations in the real sector of the economy as they would have access to cheaper rates and for a longer period of time.

As a result of compulsory savings into Retirement Saving Accounts (RSAs), long term funds would be generated which would be invested in compliance with the law and regulations issued by the commission.

In the short term, the regulation identified the necessity for rapid development of the capital market through creating quality investment outlets for various asset class to absorb these long term funds which is been accumulated for the first time in the history of Nigeria.

The medium term is concerned with the liberalization of the investment regime for pension fund assets in correlation with development in the local financial market. It is also expected that the reform would positively have an impact on the activities and performance of the bonds markets.

GRAPH 1



The above graph shows the medium term effect of pension reform on the Nigerian economy and capital market.

The importance of the emerging markets can only be imagined given the new savings which was accumulated in the 24 months to July 2006 of about =N=150 billion (approx USD1.2 billion) while existing occupational funds being transferred to the new scheme approximates =N= 600 billion (USD 4.6 billion).

In the 7th month of October, 1.4 million members have registered out of the targeted 6 million workers in the formal organized work sector of the economy. It has been estimated that the monthly contributions have been conservatively put at =N=6 billion. As a matter of fact, there is no doubt that in the nearest future, pension fund asset will no doubt represent a significant portion of the country's Gross Domestic Product and pension fund operators would become a major institutional investor which would have a great influence on the financial market and the economy as a whole.

3.0 METHODOLOGY

3.1 MODEL SPECIFICATION

Following the model adopted by Mankiw, Romer and Weil (1992), it is necessary to start from the early form of production function. This can be written as $Y = f(K, L)$ (6)

The Cobb-Douglas production function is widely used in several economic literatures. Equation (6) can therefore be analyzed as $Q = AK^{\beta}L^{1-\beta}$ (7)

Where Q is the output, A is the technology, K is the capital stock and L is the labour force in the economy. Generally, the production function of Cobb-Douglas as shown in equation (7) can be modified slightly so as to facilitate the analysis of the role of pension funds as an investor in the Nigerian economy. In other to achieve this, the inclusion of some control variables was estimated in the model. Roemer (1989) and Lucas (1988) argued that stock market as well as financial intermediation helps to improve economic growth by improving the productivity of investment and increasing the rate of investment. Atje and Jovanovic (1993) provided a model where financial markets have a greater effect on economic growth than financial intermediation by banks. This is because it was assumed that stock market is more able to develop venture capital than technical progress than the banks.

To examine the role of pension funds in the economic growth of Nigeria, this study uses physical capital, labour force and four control variables which can be viewed as important factors in the Nigerian economy during the analyzed period. Hence, this suggests that a general empirical model of pension funds on the economic growth of Nigeria from equation (7) can be put as

$$RGDP = f(L, K, PFA, INF) \quad (8)$$

Where:

RGDP	=	Real Gross Domestic Product
L	=	Labour Force
K:	=	Capital Stock
PFA	=	Pension Fund Asset
INF	=	Infrastructural Development

If we assume that the functional relationship represented by equation (8) above is a non-linear one, then we have:

$$\ln GDP = \alpha_0 + \alpha_1 \ln L + \alpha_2 \ln K + \alpha_3 \ln PFA + \alpha_4 \ln INF + U_t \quad (9)$$

The notation \ln denotes the natural logarithm of variables and U_t is the stochastic disturbance term.

The data used in this study are time series. A stationary test was conducted to know their various levels of stationary (levels of integration). Ordinary Least Square (OLS) was later conducted based on the data derived after this test. This is because the data of the variables were stationary at both levels and at difference. Therefore, the presentation and interpretation of results will be divided into major parts. Section 4.2 shows the stationary analysis.

This section estimates the relationship between pension funds and economic growth and finds out the impact of labour, capital and other control variable such as technological development which is proxied with the level of infrastructural development in the Nigerian economy from 1970-2010. To achieve this purpose, the model specified in the previous chapter was estimated using the Augmented Dickey-Fuller (ADF) to test for the unit root of the variables, the granger causality test and the OLS regression. The model estimated is given by.

$$\ln GDP = \alpha_0 + \alpha_1 \ln L + \alpha_2 \ln K + \alpha_3 \ln P + \alpha_4 \ln IFR + U_t \quad (10)$$

Where: $\alpha_1 > 0$, $\alpha_2 > 0$, $\alpha_3 > 0$, $\alpha_4 > 0$

However, stationary of time series can be checked by finding out if the time series contains a unit root. The Augmented Dickey Fuller was suitable for this purpose. However in practice, most economic time series data are non-stationary Gujarati (1995). To ascertain the validity of our estimation result, we first tested the underlying assumption of stationary of time series data.

4.0 DATA PRESENTATION AND ANALYSIS

TABLE 4.1: AUGMENTED DICKEY FULLER RESULTS OF EQUATION ONE

Series	Augmented Dickey Fuller with constant	Augmented Dickey Fuller with constant and trends	Order of integration
lnGDP	-0.861081	-1.460700	I(1)
lnP	-3.098670**	6.471870*	I(0)
lnL	-3.418831**	-2.971259	I(0)
lnK	-0.784119	-1.591069	I(1)
lnINF	-2.051853	-3.112691	I(1)

* and ** indicate significance at 1% and 5% levels respectively

As an introductory step to analyze the results of equation (1), it is important to differentiate between correlation that arises from a trend and the other associated with an underlying causal relationship. To achieve this, the series were tested for non-stationary by using the ADF Dickey & Fuller (1981) unit root test with constant and deterministic trend. Table 4.1 shows the results of the estimated equation using the ADF unit root test. This was shown above.

In seeking to estimate the variables, we found the first difference of all the variables reflecting those which were stationary in levels I(0) and at order one I(1). The data thus generated was used in estimating our model. A summary of the results is featured in the tables in the next section.

4.1 RESULTS AND DISCUSSIONS

The result under this study shows the role of pension funds as an institutional investor on the Nigerian economy. The model specifications were estimated with relevant time series data for a period under this study. To analyze this objective, the ordinary least square estimate was used. This specifies economic growth as a function of labour, capital, pension funds and infrastructural development. The result is shown below in Table 4.2.

TABLE 4.2: ORDINARY LEAST SQUARE (OLS) ESTIMATION RESULT OF EQUATION 1

The Independent Variable is LOG (GDP)			
Explanatory Variables	Coefficients	Standard Error	T- Values (Probability)
Constant (C)	7.919486	0.120927	0.662508(0.5122)
LOG(L)	-0.326838	0.312617	-1.045489(0.3034)
LOG(K)	0.435226	0.046261	9.407987*(0.0000)
LOG(P)	0.014338	0.015487	0.925866(0.3612)
LOG(IFR)	0.080115	0.120927	0.662508(0.5122)
R ²	0.811393		
Adjusted R ²	0.788531		
F	35.49169		
D-W	1.311074		

* and ** indicates significance at 1% and 5% levels respectively

The regression result obtained in Table 4.2 shows the role of pension funds as an institutional investor on economic growth in Nigeria. In Table 4.2, it can be concluded that all the variables conforms to the predicted signs in the previous chapter except labour force of the country. The R² value of 0.811393 shows that the explanatory variables accounted for 81% systematic variation in GDP of the Nigerian economy over the period of 1970 – 2010.

The F-statistic, which is a diagnostic statistic, is a measure of overall significance of the regression equation. The estimated model indicates that F = 35.49169, and the probability value of this statistic shows that the regression is significant at 1% level. It was also discovered from the table that the Durbin Watson statistic is also very low which means that the result has the problem of serial correlation. The implication of this problem is that the regression result cannot be relied upon for making any policy inference about the role of pension funds on economic growth in Nigeria. To eliminate the problem of autocorrelation, the Cochrane Orcutt method was adopted and the model was re-estimated. Table 4.3 below shows the final regression result obtained using the data for the period 1970-2010.

TABLE 4.3: ORDINARY LEAST SQUARE (OLS) RESULT OF EQUATION 2 USING COCHRANE ORCUTT ESTIMATION METHOD

The Independent Variable is LOG(GDP)			
Explanatory Variables	Coefficients	Standard Error	T- Values (Probability)
Constant (C)	7.440237	1.917275	3.880630*(0.0006)
LOG(L)	-0.307821	0.348810	-0.882490(0.3848)
LOG(K)	0.430276	0.062105	6.928194*(0.0000)
LOG(P)	0.003139	0.013933	0.225271(0.8233)
LOG(IFR)	0.120977	0.142705	0.847742(0.4035)
AR(1)	0.418340	0.185859	2.250842**(0.0321)
AR(2)	-0.176277	0.198412	-0.888439(0.3816)
R ²	0.831056		
Adjusted R ²	0.796102		
F	23.15120		
D-W	2.020571		

* and ** indicates significance at 1% and 5% levels respectively.

The table indicates that our regression is of a good fit with R-square of more than 83.1 percent. The Durbin Watson statistic of 2.020571 also revealed that the regression is free from the problem of autocorrelation.

After the correction has been made it is therefore necessary to analyze the impact of pension funds as an institutional investor on economic growth in Nigeria. We examine whether the coefficient of pension funds P and economic growth proxied by Gross Domestic Product GDP in Table 4.3 has the right sign and is statistically significant at the 5 percent level. It can be seen that there exist a positive relationship between pension funds and GDP in Nigeria but has not been significant in this study. However the result of this study supported that of Holzmann (1997) who found out that a positive relationship exist between pension funds and economic growth. This means that pension funds does not play a crucial role in the Nigerian economy. This conforms to the a priori expectation of a positive coefficient. Several studies have revealed similar result. The overall implication is that pension funds in the economy have a positive effect on the economy.

Technological development which is proxied by infrastructural development (IFR) has a positive and insignificant relationship to GDP. This result is expected to have a positive relationship with the dependent variable and has been so in this study. Also, infrastructural development does not affect the economic growth of the country. This is attributed to lack of implementation of macroeconomic policies and high level of corruption.

This regression result mirrors the fact that there is a positive and insignificant relationship between the labour force and economic growth in Nigeria. Increased labour force improves the quality of the total output of a country and promotes labour productivity, which is a vital factor for growth. This result conformed to the a priori expectations stated earlier.

Lastly, the level of physical capital in the economy has a positive and significant relationship to economic growth. This follows the expected sign and therefore conforming the predictions earlier made. It can be suggested that increase in physical capital leads to increase in growth in the economy.

5.0 CONCLUSION

For a country to attain the desired level of growth and development there is the need for adequate Labour force, physical capital, infrastructural development and pension funds policy which in turn, depends on the level of growth in the economy. The importance of the listed variables lies in the fact that it enhances greater rate of growth of real GDP.

Despite the fact that all the independent variables are essential for growth and development, the situation in Nigeria is such that the low level of labour force has led to negative real GDP growth and decline in per capital GDP and other unpleasant macroeconomic developments in the Nigerian economy. Recently, there has been the view that pension funds could be used to augment economic growth and therefore boost development. To empirically test this view, this study investigated the role of pension funds as an institutional investor and its impact on the economic growth in Nigeria. The study concluded that pension funds, though positively related to real gross domestic product was statistically insignificant. The study also revealed that the most important variable affecting the level of growth in the Nigerian economy is the physical capital of the economy.

6.0 RECOMMENDATIONS

It's going to take some few years before pension reforms can be fully implemented and achieved. Stemming from the findings of this study, some key policy issue arises. The recommended that the federal government should aim at proving more capital which will increase the level of growth in the country. It was also discovered that there was an insignificant relationship between pension funds and economic growth. This could be attributed to the poor economic conditions, unstable financial sector, lack of commitments on the part of the government, high rate of corruption and lack of trust worthiness within the system which could be corrected if proper policies are put in place and been fully implemented. Investment portfolios of pension funds should also be diversified towards private and international instruments in order to reduce risk. Also, pension reforms should needs to be complemented with other reforms in the economy such as social security, labour market and financial sector in order to have an overall effect on the economy. Finally, policies should be formulated towards the integration of the defined benefits and defined contributions plan and work towards institutionalizing the multi-pillar system of the economy.

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AGRICULTURE AND WOMEN ENTREPRENEURSHIP IN INDIA

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ABSTRACT

Women are a vital part of Indian economy. In rural India, the percentage of women who depend on agriculture for their livelihood is as high as 84 percent. Women make up about 33 percent of cultivators and about 47 percent of agricultural laborers. Women entrepreneurship development is an essential part of human resource development. The development of women entrepreneurship is very low in India, especially in the rural areas. Entrepreneurship amongst women has been a recent concern. Women have become aware of their existence their rights and their work situation. However, women of middle class are not too eager to alter their role in fear of social backlash. The progress is more visible among upper class families in urban cities. Entrepreneurship has been a male-dominated phenomenon from the very early age, but time has changed the situation and brought women as today's most memorable and inspirational entrepreneurs. Women entrepreneurs need to be lauded for their increased utilization of modern technology, increased investments, creating a sizable employment for others and setting the trend for other women entrepreneurs. While women entrepreneurs have demonstrated their potential, the fact remains that they are capable of contributing much more than what they already are. The main objective of this paper is to show Agriculture and women entrepreneurship in India, to find out challenges and possibilities of women entrepreneurship in India. This paper is based on micro, small and medium enterprises. We show the Concept of Entrepreneur and Concept of Women Entrepreneur, Categories of Women Entrepreneurs in India, Challenges of Women Entrepreneurs in India and Possibilities of Women Entrepreneurship in India. We also discussed Entrepreneurship among Rural Women and its effect on rural development.

KEYWORDS

Agriculture, Entrepreneurship, Skill, Economic empowerment, Development.

INTRODUCTION

India has a predominantly agrarian economy. Agriculture has always been India's most important economic sector. In this important agricultural sector woman plays a vital role, because it is largely a household enterprise. India has a national tradition bound to agriculture facility. Agriculture in India defines familiar tradition, social relations and gender roles. Women in agricultural sector, whether through traditional means or industrial, for subsistence or as agriculture labour, represents a momentous demographic group.

The emergence of women entrepreneurs and their contribution to the national economy is quite visible in India. The Indian economy has been witnessing a drastic change since mid -1991, with new policies of economic liberalization, globalization and privatization initiated by the Indian government. India has great entrepreneurial potential. At present, women involvement in economic activities is marked by a low work participation rate, excessive concentration in the unorganized sector and employment in less skilled jobs.

Any strategy aimed at economic development will be lop-sided without involving women who constitute half of the world population. Evidence has unequivocally established that entrepreneurial spirit is not a male prerogative. Women entrepreneurship has gained momentum in the last three decades with the increase in the number of women enterprises and their substantive contribution to economic growth.

Indian women are considered as Sakthi, which means source of power. Effectively coordinating the available factors and resources, efficient execution of decisions imposed on them, clear vision and ambition on the improvement of family and children, patience and bearing the sufferings on behalf of others and ability to work physically more at any age. In India, though women have played a key role in the society, their entrepreneurial ability has not been properly tapped due to the lower status of women in the society. It is only from the Fifth Five Year Plan (1974-78) onwards that their role has been explicitly recognized with a marked shift in the approach from women welfare to women development and empowerment. The development of women entrepreneurship has become an important aspect of our plan priorities. Several policies and programmes are being implemented for the development of women entrepreneurship in India.

OBJECTIVES

The objective of this paper is-

1. To study Agriculture and women entrepreneurship in India.
2. To study Categories of Women Entrepreneurs in India.
3. To study Challenges of Women Entrepreneurs in India.
4. To study Possibilities of Women Entrepreneurship in India.
5. To study Entrepreneurship among Rural Women and its effect on rural development.

AGRICULTURE AND WOMEN

In rural India, the percentage of women who depend on agriculture for their livelihood is as high as 84 percent. Women make up about 33 percent of cultivators and about 47 percent of agricultural laborers. These statistics do not account for work in livestock, fisheries and various other ancillary forms of food production in the country. In 2009, 94 percent of the female agricultural labor force in crop cultivation was in cereal production, while 1.4 percent worked in vegetable production and 3.72 percent were engaged in fruits, nuts, beverages and spice crops. Women's participation rate in the agricultural sectors is about 47 percent in tea plantations, 46.84 percent in cotton cultivation, 45.43 percent growing oil seeds and 39.13 percent in vegetable production. While these crops require labor-intensive work, the work is considered quite unskilled. Women also heavily participate in ancillary agricultural activities. According to the Food and Agriculture Organization, Indian women represented a share of 21 percent and 24 percent of all fishers and fish farmers, respectively.

CONCEPT OF ENTREPRENEUR

The word 'entrepreneur' derives from the French word "Entreprendre" (to undertake). During the 18th century, the word 'entrepreneur' was used to refer to economic activities. Many authors have defined 'entrepreneur' differently. Generally, an entrepreneur is a person who combines capital and labour for production. According to Cantillon "entrepreneur is the agent who buys means of production at certain prices, in order to sell at prices that are certain at the moment at which he commits himself to his cost". According to P.F Drucker "he is one who always (1) searches for change, (2) responds to it, (3) exploits it as an opportunity."

CONCEPT OF WOMEN ENTREPRENEUR ENTERPRISE

"A small scale industrial unit or industry - related service or business enterprise, managed by one or more women entrepreneurs in a concern, in which they will individually or jointly have a share capital of not less than 51 percent as shareholders of the private limited company, members of co-operative society".

Women Entrepreneurs may be defined as the women or a group of women who initiate, organize and operate a business enterprise. Government of India has defined women entrepreneurs as an enterprise owned and controlled by a woman having a minimum financial interest of 51 percent of the capital and giving at least 51 percent of employment generated in the enterprise to women. Like a male entrepreneurs a women entrepreneur has many functions. They should explore the prospects of starting new enterprise; undertake risks, introduction of new innovations, coordination administration and control of business and providing effective leadership in all aspects of business.

CATEGORIES OF WOMEN ENTREPRENEURS

- ❖ Women in organized & unorganized sector.
- ❖ Women in traditional & modern industries.
- ❖ Women in urban & rural areas.
- ❖ Women in large scale and small scale industries.
- ❖ Single women and joint venture.

WOMEN ENTREPRENEURS IN INDIA

According to annual report 2009-10 of Ministry of Micro, Small and Medium Enterprises, Government of India, it was found that 13.85 percent (2, 15,036) of the units in the registered MSME sector were women enterprises. Annual report 2003-04 of Ministry of MSME states that 11.08 percent (83,125) of the units in the registered MSME sector were women enterprises. It is clear from the above data no. of women enterprises increased and women doing well in managing their own enterprises but as comparison to all enterprises women participation is much low.

CHALLENGES OF WOMEN ENTREPRENEURS IN INDIA

Women in India are faced many challenges to get ahead their life in business. A few Challenges can be detailed as-

1. The greatest deterrent to women entrepreneurs is that they are women. A kind of patriarchal – male dominant social order is the building block to them in their way towards business success.
2. The financial institutions are skeptical about the entrepreneurial abilities of women. The bankers consider women loonies as higher risk than men loonies. The bankers put unrealistic and unreasonable securities to get loan to women entrepreneurs.
3. Entrepreneurs usually require financial assistance to launch their ventures. Women in developing nations have little access to funds. The women entrepreneurs are suffering from inadequate financial resources and working capital. Very few women have the tangible property in hand.
4. Women's family obligations also bar them from becoming successful entrepreneurs in both developed and developing nations. "Having primary responsibility for children, home and older dependent family members, few women can devote all their time and energies to their business."
5. Indian women give more emphasis to family ties and relationships. Married women have to make a fine balance between business and home. More over the business success is depends on the support the family members extended to women in the business process and management.
6. The male - female competition is another factor, which develop hurdles to women entrepreneurs in the business management process. Despite the fact that women entrepreneurs are good in keeping their service prompt and delivery in time, due to lack of organizational skills compared to male entrepreneurs women have to face constraints from competition. The confidence to travel across day and night and even different regions and states are less found in women compared to male entrepreneurs.
7. Knowledge of alternative source of raw materials availability and high negotiation skills are the basic requirement to run a business. Getting the raw materials from different sources with discount prices is the factor that determines the profit margin. Lack of knowledge of availability of the raw materials and low-level negotiation and bargaining skills are the factors, which affect women entrepreneur's business adventures.
8. Knowledge of latest technological changes, know how, and education level of the person are significant factor that affect business. The literacy rate of women in India is found at low level compared to male population. Many women in developing nations lack the education needed to spur successful entrepreneurship. They are ignorant of new technologies or unskilled in their use, and often unable to do research and gain the necessary training.
9. Low-level risk taking attitude is another factor affecting women folk decision to get into business. Low-level education provides low-level self-confidence and self-reliance to the women folk to engage in business, which is continuous risk taking and strategic cession making profession. Investing money, maintaining the operations and ploughing back money for surplus generation requires high risk taking attitude, courage and confidence.
10. Finally high production cost of some business operations adversely affects the development of women entrepreneurs. The installation of new machineries during expansion of the productive capacity and like similar factors dissuades the women entrepreneurs from venturing into new areas.

POSSIBILITIES OF WOMEN ENTREPRENEURSHIP IN INDIA

Right efforts on from all areas are required in the development of women entrepreneurs and their greater participation in the entrepreneurial activities. Following efforts can be taken into account for effective development of women entrepreneurs.

1. Better educational facilities and schemes should be extended to women.
2. Adequate training programme on management skills to be provided to women community.
3. Encourage women's participation in decision-making.
4. Vocational training to be extended to women community that enables them to understand the production process and production management.
5. Skill development to be done in women's polytechnics and industrial training institutes.
6. Training on professional competence and leadership skill to be extended to women entrepreneurs.
7. Training and counseling on a large scale of existing women entrepreneurs to remove psychological causes like lack of self-confidence and fear of success.
8. Continuous monitoring and improvement of training programmes.
9. Activities in which women are trained should focus on their marketability and profitability.
10. Making provision of marketing and sales assistance from government part.
11. State finance corporations and financing institutions should permit by statute to extend purely trade related finance to women entrepreneurs.
12. The financial institutions should provide more working capital assistance both for small scale venture and large scale ventures.
13. Making provision of micro credit system and enterprise credit system to the women entrepreneurs at local level.
14. Repeated gender sensitization programmers should be held to train financiers to treat women with dignity and respect as persons in their own right.
15. Infrastructure, in the form of industrial plots and sheds, to set up industries is to be provided by state run agencies.
16. Industrial estates could also provide marketing outlets for the display and sale of products made by women.
17. A Women Entrepreneur's Guidance Cell set up to handle the various problems of women entrepreneurs all over the state.
18. Programmers for encouraging entrepreneurship among women are to be extended at local level.
19. More governmental schemes to motivate women entrepreneurs to engage in small scale and large-scale business ventures.
20. Involvement of Non Governmental Organizations in women entrepreneurial training programmes and counseling.

ENTREPRENEURSHIP AMONG RURAL WOMEN

Empowering women particularly rural women is a challenge. Micro enterprises in rural area can help to meet these challenges. Micro- enterprises not only enhance national productivity, generate employment but also help to develop economic independence, personal and social capabilities among rural women. Following are some of the personal and social capabilities, which were developed as result of taking up enterprise among rural women.

- Economic empowerment
- Improved standard of living
- Self confidence
- Enhance awareness
- Sense of achievement
- Increased social interactions
- Engaged in political activities
- Increased participation level in gram sabha meeting
- Improvement in leadership qualities
- Involvement in solving problems related to women and community
- Decision making capacity in family and community

Economic empowerment of women by entrepreneurship led to the empowerment of women in many things such as socio economic opportunity, property rights, political representation, social equality, personal right, family development, market development, community development and at last the nation development.

The literary and educational status of women improved considerably during the past few decades. More and more higher educational and research institutions are imparting knowledge and specialization. At this juncture, effective steps are needed to provide entrepreneurial awareness, orientation and skill development programmes to women. The institutions available at present are very limited. Moreover, their functions and opportunities available with them are not popularized much.

CONCLUSION

Women are a vital part of Indian Economy. Despite their dominance of the labor force women in India still face extreme disadvantage in terms of pay, land rights and representation in local farmer's organizations. Furthermore their lack of empowerment often results in negative externalities such as lower educational attainment for their children and poor familial health. Entrepreneurship among women, no doubt improves the wealth of the nation in general and of the family in particular. Women today are more willing to take up activities that were once considered the preserve of men, and have proved that they are second to no one with respect to contribution to the growth of the economy.

Independence brought promise of equality of opportunity in all sphere to the Indian women and laws guaranteeing for their equal rights of participation in political process and equal opportunities and rights in education and employment were enacted. But unfortunately, the government sponsored development activities have benefited only a small section of women. The large majority of them are still unaffected by change and development activities have benefited only a small section of women i.e. the urban middle class women. The large majority of them are still unaffected by change and development. The reasons are well sighted in the discussion part of this paper.

The modern trend shows that women join hands in enhancing the income of the family. In turn it also changes their personality and living standards. The role of Women entrepreneur in economic development is inevitable. Now-a-days women enter not only in selected professions but also in professions like trade, industry and engineering. Women are also willing to take up business and contribute to the Nation's growth. Their role is also being recognized and steps are being taken to promote women entrepreneurship. Resurgence of entrepreneurship is the need of the hour. Women entrepreneurship must be moulded properly with entrepreneurial traits and skills to meet the changes in trends, challenges global markets and also be competent enough to sustain and strive for excellence in the entrepreneurial arena.

There is a need for changing the mindset towards women so as to give equal rights as enshrined in the constitution. The progress towards gender equality is slow. In the words of former President APJ Abdul Kalam "Empowering women is a prerequisite for creating a good nation, when women are empowered, society with stability is assured. Empowerment of women is essential as their thoughts and their value systems lead to the development of a good family, good society and ultimately a good nation."

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WOMEN ENTREPRENEURSHIP: AN EMERGING WORKFORCE IN 21st CENTURY

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ABSTRACT

The Indian sociological setup is a male dominated one. Women are considered weaker and have to depend on male folk in their family and outside, throughout their life. They are left with lesser commitments and kept as a dormant force for a quite long time. But traditional setup is changed in the modern era. Women sector occupies nearly 45% of the Indian population. The Indian women's education standard raised in the last few decades. This conceptual paper emphasises the women entrepreneurs as the potentially emerging workforce in the 21st century.

KEYWORDS

Women Entrepreneurship, Motivating factors, Policies and schemes, Associations, Traits, Successful Women Entrepreneurs, Emerging Workforce in 21st Century.

INTRODUCTION

The term entrepreneur is from, and is commonly used to describe an individual who organizes and operates a business or businesses, taking on financial risk to do so. The term was first defined by the Irish-French as the person who pays a certain price for a product to resell it at an uncertain price, thereby making decisions about obtaining and using the resources while consequently admitting the risk of enterprise.

OBJECTIVES OF THE STUDY

The objectives of the study are:

- To explore women entrepreneurship
- To enumerate Factors Motivating Women to Become Entrepreneurs
- To explore Policies and Schemes for Women Entrepreneurs in India
- To explore Women Entrepreneur Associations
- To explore Traits of Women Entrepreneurs in India
- To give some example of women entrepreneurs
- To explore Women Entrepreneur as an Emerging Workforce in 21st Century

METHODOLOGY

The paper is a conceptual paper and the method of reviewing articles of different articles of different researchers, research journals and case studies has been involved for the drafting of the paper.

WOMEN ENTREPRENEURSHIP

By "women entrepreneurship" we mean an act of business ownership and business creation that empowers women economically. Women entrepreneurship has been recognised as an important source of economic growth. Women entrepreneurs create new jobs for themselves and others and also provide society with different solutions to management, organisation and business problems. However, they still represent a minority of all entrepreneurs. Women entrepreneurs often face gender-based barriers to starting and growing their businesses, like discriminatory property, matrimonial and inheritance laws and/or cultural practices; lack of access to formal finance mechanisms; limited mobility and access to information and networks, etc. Two main stream of thoughts have influenced the promotion of women entrepreneurship in India by the government as well as by various other agencies. The first stream is employment centred. It has been argued that considering their weaker bargaining power in the market as well as society, women should be given higher priority in various entrepreneurial schemes. The second most stream of thought relates to the argument for autonomy of women.

FACTORS MOTIVATING WOMEN TO BECOME ENTREPRENEURS

The following attributes influence women to become entrepreneur:

- Economic independence
- Dissatisfaction with existing job
- Unemployment, seeking challenge
- Self interest
- Self prestige
- Traditional/ heredity employment opportunities, technical knowledge, encouragement from family members, use of idle funds, infrastructural facilities, entrepreneurial experience, market potentials, family members' interest, social status and family background.

POLICIES AND SCHEMES FOR WOMEN ENTREPRENEURS IN INDIA

In India, the micro, small and medium enterprise development organisations, various state small industries development corporations, the nationalised banks and even NGOs are conducting various programmes including Entrepreneurship Development Programmes (EDPs) to cater to the needs of potential women entrepreneurs, who may not have adequate educational background and skills. The Office of DC (MSME) has also opened a women cell to provide coordination and assistance to women entrepreneurs facing specific problems.

There are also several other schemes of the government at central and state level, which provide assistance for setting up training-cum-income generating activities for needy women to make them economically independent. Small industries development bank of India (SIDBI) has also been implementing special schemes for women entrepreneurs.

- Prime Minister's Rozgar Yojana (PMRY)
- MSME Cluster Development Programme
- Credit Guarantee Fund Scheme for Micro and Small Enterprises

WOMEN ENTREPRENEUR ASSOCIATIONS

Different agencies and NGOs are playing important role in facilitating women empowerment along with Indian government such as:

- Federation of Indian Women Entrepreneurs (FIWE)
- Consortium of Women Entrepreneurs (CWE)
- Self Employed Women's Association (SEWA)
- Women Entrepreneurs Promotion Association
- The Marketing Organisation of Women Entrepreneurs
- SAARC Chamber Women Entrepreneurship Council
- Women Empowerment Corporation

Along with these organisations, there are many others acting at state level for the development of women entrepreneur.

TRAITS OF WOMEN ENTREPRENEURS IN INDIA

Characteristics of women entrepreneurs in India are as follows

- Women entrepreneurs have strong desire for autonomy, to be their own boss, and live life on their own terms.
- They are an independent self-starter, not needing or wanting others to tell them what to do.
- They are calculated risk taker, with a higher-than-normal tolerance for failure and consider failure a non-issue.
- They like to be in control.
- They are highly self-motivated and are indefatigably fearless when it comes to getting the job done.
- They have a high level of energy that is sustainable over a long period of time.
- They are creative and innovative, a strong decision maker, and able to think quickly on their feet, and set things in motion.
- They are a big-picture thinker capable of seeing how everything relates to each other.

SUCCESSFUL WOMEN ENTREPRENEURS IN INDIA

- Dream Weavers: started with Rs. 500 and now earns 25 Lakhs
- Patricia Narayan: winner of FICCI Women Entrepreneur of the Year Award
- Sarala bastian: owner of successful mushroom business
- Kiran Majoomdar: the Biocon Queen
- Saloni Malhotra: founder of DESICREW
- Revathi Krishna: founder of COFEE, books and more
- Lata Manohar: running successful boutique "Vishuddhi"
- Radha Rajakrishnana: a successful entrepreneur in apparel business

WOMEN ENTREPRENEUR AS AN EMERGING WORKFORCE IN 21ST CENTURY

Business world of 21st century is certainly very different from the past decades due to impact of the forces of technology, information, competition and market trends.

Keeping in view the 21st century women entrepreneurship, it is an emerging workforce having capabilities of improvement and enhancement provided they are supported and facilitated through customised policy frameworks by government institutions.

Women entrepreneur of 21st century is potentially motivated for change in order to improve the living conditions of her family, provide a sharing hand to her husband in income generation, provide quality education to her children, contribute positively by creating job opportunities, empowering other women and bringing out the society out of economic disparity and unemployment.

DISCUSSION

- **Education and Training:** women entrepreneurs require pre-entrepreneurial training before setting up a business successfully. So the proper training in right direction should be planned meticulously.
- **Capital and Fund Raising Platforms:** the most common and hesitant aspect among women entrepreneurs is capital generation for their business ventures. Unfortunately, all over the world policies are not very encouraging for women entrepreneurs regarding capital generation. Women entrepreneurs have to go through complex and time consuming procedures for capital generation due to number of reasons, consequently turning their motivational spirit off as business start-ups.

Policies need to be reviewed and reframed considering the challenges of women entrepreneurs to improve and speed up the finance generation processes

CONCLUSION

Despite all the problems, successful women entrepreneurs do exist. Women being the vital gender of the overall population have great capacity and potential to be the contributor in the overall economic development of any nation. Therefore, programs and policies need to be customized to not just encourage entrepreneurship as well as implement strategies which can help support entrepreneurial culture among youth.

Media has the potential to play the most vital role in entrepreneurial development by creating and highlighting all such platforms which can bring out the creativity and innovation among the women and men to grow entrepreneurship culture in society. Developing countries are definitely in dire need to encourage women entrepreneurship as women workforce is promptly available to exploit the unexplored dimensions of business ventures. Developed nations should primarily focus on entrepreneurial educational programs in order to develop women entrepreneurs. Generally speaking, globally business world has realized and is working on war footing to create entrepreneurship as the final remedy to overcome all types of business and market challenges.

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AN EMPIRICAL STUDY ON THE DYNAMICS OF COMMODITY DERIVATIVE MARKET'S IMPACT ON INDIAN INVESTMENT

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ABSTRACT

This paper finds that concurrent with the rapid growing world financial market has witnessed a spectacular change in the field of Commodity market in the past one decade. India also could not become aloof from the world trend and mainly after the liberalization has set in motion. India introduced the different types in phased manner. A Commodity Market has gained momentum since, its introduction in India and has played a major role in Indian financial markets. Similarly, on the equity market, many retail investors who are uncomfortable about the equity market would enter if they were given the alternative of buying insurance, which controls their downside risk. This would enhance the action of the savings of the country, which are routed through the equity market. More importantly, Commodity Market is one of the important tools of hedging risk. Therefore, the study of current scenario of Commodity Market in India is very importance.

KEYWORDS

Commodity Market, Indian Investment Sector, Dynamics of Commodity Market in India.

1. INTRODUCTION

Derivatives as a tool for managing risk first originated in the Commodities markets. They were then found useful as a hedging tool in financial markets as well. The basic concept of a derivative contract remains the same whether the underlying happens to be a commodity or a financial asset. However there are some features, which are very peculiar to commodity derivative markets. In the case of financial derivatives, most of these contracts are cash settled. Even in the case of physical settlement, financial assets are not bulky and do not need special facility for storage. Due to the bulky nature of the underlying assets, physical settlement in commodity derivatives creates the need for warehousing. Similarly, the concept of varying quality of asset does not really exist as far as financial underlying are concerned. However in the case of commodities, the quality of the asset underlying a contract can vary largely. This becomes an important issue to be managed.

A Commodity market broadly is an Agriculture market whose payoff structure is determined by the value of underlying commodities, exchange rate, oil price, and the like. So a Commodity market comprises of trade instruments which derive their value from some underlying variable assets like food grains such as wheat, rice pulses etc. All commodity markets are based on some 'cash' products. The underlying asset of a commodity market instrument may be any product of the following types they are Precious metals (Gold, Silver, and Copper) Agriculture Products (grain, coffee, beans, orange juice etc.), Other Metals, and Energy.

2. OBJECTIVES OF THE STUDY

- To study on Dynamics of Commodity derivative Market Impact On Indian Investment Sectors
- To analyse the beneficiaries satisfaction level for investors on commodity derivative market.

3. STATEMENT OF THE PROBLEM

Beside the investor are not well aware about the commodity market India, and the investor are showing reluctance in invest on commodity market. The people have not fully accepted the investment on commodity market, even though it provides much beneficiaries to the investor to hedging their risk.

4. RESEARCH METHODOLOGY

In order to reach the above stated objectives the study has covered both primary and secondary data. The primary data was collected through questionnaires. Secondary data was collected through published source like magazine, books, journals and websites.

5. LITERATURE REVIEW

Raj Narayana Guptha (April-June 2011) his study entitled as "The Commodity Derivative Market In India: The Past, Present and Future" his study says that after a long period of suspension of commodity derivative market was re-introduced in India in early 2000s. Since its resumption, however, the market has been growing at a very high pace

Narender. L. Ahaja (2006) his study entitled as "Commodity Derivatives Market in India: Development, Regulation and Future Prospectus" his study says that India is one of the top producer of a large numbers of commodities, and also has a long history of trading in Commodity and related derivatives allowed to play their role. The management price risks is going to assume even greater importance in future with the promotion of free trade and removal of barriers in the world.

Janathan Hill, Ian Jack (March 2007) his study entitled as "Growth In Commodity Investment: Risk and Challenging For Commodity" his study says that commodities influence a significant portion of the world economy and can be viewed as the largest 'non-financial' market in the world.

6. SCOPE OF THE STUDY

A Convenient random sample was followed to 100 Investors is restricted to Shimoga district (Karnataka).

- Statistical tools used for data analysis
- Simple Chi-square test is as used for analysis of data and testing of the hypothesis.

7. HYPOTHESIS

- Ho - There is no beneficiary of commodity derivative market on Indian investment sectors
- H1 - There is beneficiary of commodity derivative market on Indian investment sectors
- Ho - There is no better satisfaction level for investors on commodity derivative market.
- H1 - There is better satisfaction level for investors on commodity derivative market.

8. ANALYSIS

TABLE NO. 1: SHOWING INVESTORS (SELECTED RESPONDENTS) SOCIO-ECONOMIC PROFILE

Sl. No	Class	Gender (%)		Avg Age (%)		Experience in commodity market		Education (%)		Annual Income Status (%)	
		M	F	M	F	<2 yr	>2 yr	<U G	>UG	<2 lakh	>2 Lakh
01	Businessman	72	28	46	39	20	80	72	28	18	82
02	Agriculturist	80	20	48	40	25	75	89	11	78	12
03	Govt Employees	69	31	42	36	24	76	50	50	00	100
04	Self Employed	64	36	44	37	44	66	80	20	90	10
05	Trader	93	07	45	37	33	67	26	74	00	100
06	Private employee	82	18	36	34	18	82	44	56	4	96

Above table reveals that all the level of people are interested in commodity market, such as business people, agriculture, government employees, traders and private employees

HYPOTHESIS

Ho - There is no beneficiary of commodity derivative market on Indian investment sectors

H1 - There is a beneficiary of commodity derivative market on Indian investment sectors

TABLE NO. 2: ADVANTAGES OF COMMODITY DERIVATIVE MARKET ON INDIAN INVESTMENT SECTORS

Sl No	Advantages of Commodity market	O	E	O-E	(O-E) ²	(O-E) ² /E
01	Hedging the risk on investment	11	15	04	16	1.06
02	Generating more income	18	15	03	09	0.60
03	Zero Capital investment (Commodity forwards)	23	15	08	64	4.26
04	Variety of instrument	12	15	-03	09	0.60
05	More investment opportunities with less capital	19	15	04	16	1.06
06	Opportunities created for sustainability	09	15	-06	36	2.40
07	Using commodity derivative instrument instead of insurance for achieving to transfer the risk	08	15	-07	49	3.26
Total		100				13.24

Source: Primary

$$E=100/7=14.28 \text{ or } 15$$

$$[O-E]^2/E=13.24$$

$$d.f= (7-1) =6$$

From the above chi-square table it reveals that 11 investors share their opinion about commodity market useful to hedge the risk on investment because it is risk hedging security and 18 investors investing their money on commodity market because they assume in this market they can generate the more income when compare to capital market only when they knows everything about commodity market. Out of 100 respondents 23 investors given the reason beyond their investment in commodity market is they attracted by zero capital instrument (i.e., forward contract), and only 12 investors are like to variety of investing instrument in commodity market, such as forwards, futures, options, swaps, leaps. etc.

Out of 100 respondents 19 investors are invest money for more investment opportunities with less capital possible in commodity market. Explain with one hypothetical example. In Future Market, one needs to keep prescribed margin at MCX through your broker. It's not necessary to keep full amount in account E.g. Consider Mr. "Yashwanth Rao" purchased 5 Kg Silver in Physical market and Mr. "Prasaad Arya" purchased it in commodity Future Market.

As Mr. "Yashwanth Rao" have purchased in physical market he have to pay Rs.60, 000 x 5 = 3Lakh to the jeweler, also now he have a headache of safekeeping of the same.

Mr. "Prasaad Arya" has purchased 5 Kg of silver in future Market. MCX will ask to keep a margin of around 6% in his account .i.e. MCX want to keep balance of Rs. 18,000 at a time. Here there is no tension for keeping the jewellery. Just enough 3 lakh we can enter more than 16 contract instead of one physical buying. 8 members are like to invest in this market because they using this market instead of insurance for transferring there securities to another person.

From the above information it state that, most of the investors are attracted towards Commodity Market because of their risk hedging nature.

For 6 degrees of freedom table value for 7% and 1% significance level, and the table value 12.592 and calculated table value is 13.24 which is greater than table value. Therefore the null hypothesis rejected and alternative hypothesis is accepted.

HYPOTHESIS

Ho - There is no better satisfaction level for investors on commodity derivative market.

H1 - There is better satisfaction level for investors on commodity derivative market.

TABLE NO. 3: INVESTOR'S SATISFACTION TOWARDS COMMODITY DERIVATIVE MARKET IN INDIA

Sl No	Satisfaction Level	O	E	O-E	(O-E) ²	(O-E) ² /E
01	Risk Management	32	20	12	144	7.2
02	Predictable pricing	26	20	16	36	1.8
03	Presence of Counter party risk	30	20	10	100	05
04	Liquidity	04	20	-16	256	12.8
05	Transparent in investment	08	20	-12	144	7.2
Total		100				34.00

From the above chi-square table it reveals that 32 investors satisfied with commodity market because of diversification of risk on investment, it is one of the tool of transfer the risk from one person to another. And hedging is the most common method of price risk management. It is strategy of offering price risk that is inherent in spot market by taking an equal but opposite position in the futures market. And 26 respondents are satisfied with commodity market because of discovery of new price on the product in the market, and some respondents believe that commodity market maintain the extreme transparent than capital market (insider trading, window dressing, creative accounting). More respondents satisfied with presents of counter party risk in commodity market because of SEBI and OTC's strong guidelines.

Useful to the Producer, Useful for the consumer, Benefits to corporate entity, Useful to Exporter, Improved product quality.

For 4 degrees of freedom table value for 5% and 1% significance level, and the table value 9.49 and calculated table value is 34 which is greater than the table value. Therefore the null hypothesis rejected and alternative hypothesis is accepted.

9. CONCLUSION

Many people have become rich in the Commodity Markets, It is one of a few investment areas where individuals with limited capital can make extra-ordinary profits in a relatively short period of time and most of the people lose money, Commodity Market has a bad reputation as being too risky for the average

individuals. The truth is that Commodity trading is only as you want to make it. Investors are consider the Commodity derivative market as only a risk hedging instrument, and also it is only a optional for investment escape from capital market losses , by this reason Commodity derivative market are not developed as compare to Capital market. Investor point of view it is alternative for minimizing the losses instead buy the insurance scheme. Investors are not understood about Commodity market, it is also one of the obstacles for development of Commodity Derivative market in India

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AGRICULTURAL GROWTH AND FOOD SECURITY: PROBLEMS AND CHALLENGES

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ABSTRACT

Accruing benefits to every section of the society is the major objective of 11th five year plan. Inclusive growth in agriculture is one of the main goals of 11th five year plan. Food security is one of the main targets to be achieved for the achievement of inclusive growth in agriculture. The recent economic growth rates have failed to improve the food security in India, leaving the country facing a crisis in its rural distribution of food supply. Nation's production is not able to meet the supply to the needy rural people who are suffering from undernourishment, depth of hunger and malnutrition. Removing weaknesses at different levels of governance, improving public delivery mechanisms are the major concerns to be achieved in order to secure inclusive growth and food security. Giving the benefits to "aam aadami" and to focus on "inclusive growth and insuring food security" are the major goals for the government and the people of the nation to be achieved in the 11th five year plan period. So, the present paper focuses on food security issues in India, problems in achieving food security, challenges and governments interventions in ensuring food security in India.

KEYWORDS

Agriculture, Food Security, Growth, Productivity.

1). INTRODUCTION

India's economy has been treading an exceptional growth path in the recent past. Its growth has passed through for major phases over the past 60 years and is headed in new direction - striving to touch double digit annual growth rates and a sustainable, equitable and inclusive growth, taking into account the needs of all sections of society. India is emerging to a new phase with a broad objective of "Inclusive Growth".

The 11th Plan defines inclusive growth to be "a growth process which yields broad-based benefits and ensures equality of opportunity for all". The Inclusive growth implies an equitable allocation of resources with benefits accruing to every section of society, which is a Utopian concept. Inclusive growth is broad-based. It is concerned with the Pro-poor growth, growth with equity. The inclusiveness involves four attributes. They are opportunity, capability, access and security. The Opportunity attribute focuses on generating more and more opportunities to the people and focuses on increasing their income. The Capability attribute concentrates on providing the means for people to create or enhance their capabilities in order to exploit available opportunities. The Access attributes focuses on providing the means to bring opportunities and capabilities together. The Security attribute provides the means for people to protect themselves against a temporary or permanent loss of livelihood. Together Inclusive growth is a process in which economic growth measured by a sustained expansion in GDP, contributes to an enlargement of the scale and scope of all four dimensions. In brief, the achievement of inclusive growth in India is based on five inter related elements of development. They are:

1. Poverty Reduction and increase in quantity and quality of employment
2. Agricultural Development
3. Social Sector Development
4. Reduction in regional disparities
5. Protecting the environment.

Each element has its own importance and these elements are closely inter related. The progress in one element encourages the success of the other elements. All these elements are aimed to ensure that India achieves the progress in over all development, i.e., the ultimate objective of inclusive growth.

2). CONCEPT OF FOOD SECURITY

Food security refers to the availability of food and one's access to it. A household is considered food secure when its occupants do not live in hunger or fear of starvation. According to United Nation's Food and Agriculture Organization (FAO), "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life". According to United States Department of Agriculture, Food security includes at a minimum (1) the ready availability of nutritionally adequate and safe foods, and (2) an assured ability to acquire acceptable foods in socially acceptable ways (that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies).

3). IMPORTANCE OF AGRICULTURE AND FOOD SECURITY IN INDIA

Traditionally, India is considered as the agricultural based country. As the majority of Indians are engaged in agriculture for employment. Agriculture in India has a long history dating back to ten thousand years. Agriculture and allied sectors like forestry and logging accounted for 16.6% of the GDP in 2007, employed 52% of the total workforce and despite a steady decline of its share in the GDP, it plays a significant role in the overall socio-economic development of the nation. The agricultural output, however, depends on monsoon as nearly 60 per cent of area sown is dependent on rainfall. Today, India ranks second worldwide in farm output. India is the largest producer in the world of milk, cashew nuts, coconuts, tea, ginger, turmeric and black pepper. It also has the world's largest cattle population (281 million). It is the second largest producer of wheat, rice, sugar, groundnut and inland fish. It is the third largest producer of tobacco. India accounts for 10% of the world fruit production with first rank in the production of banana and sapota. The recent developments in the other sectors minified this major sector's growth. India's population is growing faster than its ability to produce rice and wheat. Increasing population resulted in the limited scope for expansion of arable land, as the lands became hot cakes for the realtors. All these resulted in growing concern for food security in India.

4). NEED OF THE STUDY

Food Security is one of the main objectives in inclusive growth in agriculture in India. Traditionally, India was built with strong agrarian economy; the majority of the people derive their livelihood directly or indirectly from agriculture, even as the share of economic output generated by agriculture has sharply diminished. It is important to observe that agriculture, unique among sectors of production, plays the dual role of providing an enormously important source of livelihood and of producing the means of life. India's largest contribution to the fulfillment of the right to food outside its borders may be that it has succeeded in doing so and thus avoided competing with food-importing countries. Its largest contribution to the fulfillment of the right to food within its borders will be its embarking on a path of development which reaches the mass of its people, thus making the Right to Food Act an essential means but an ultimate irrelevance. In spite of the significant progress that India has made in food production and sufficiency over the last 50 years, most rural population/communities have had to deal with uncertainties of food security on a daily basis year after year, most often generation after generation. In 2006, MSNBC (Microsoft & National Broadcasting Corporation) channel broadcasted that in the world more than one billion people who were overweight, and an estimated 800 million who were

undernourished. In India, the second-most populous country in the world, 30 million people have been added to the ranks of the hungry since the mid 1990s and 46% of children are underweight. In aggregate, over one fifth of India's population suffers from chronic hunger. Food security has been the rising concern for the country in the recent past with the growing fluctuation in agricultural output. Increasing chronic hungers and decreasing output became the major concern.

So, the present study focuses on the various issues relating to food security in India, the problems and challenges in achieving the food security.

5). OBJECTIVES OF THE STUDY

In the light of above background, the paper on "Inclusive growth and insuring food security – problems and challenges" is aimed at achieving the following objectives:

1. To study the agricultural production scenario in India.
2. To study the various problems concerning to food security in India.
3. To study the statistics on food security
4. To study the initiatives taken by the government to ensure food security in India.
5. To study the challenges in achieving inclusive growth and insuring food security.
6. Finally, to provide conclusions on the basis of the analysis.

6). METHODOLOGY OF THE STUDY

This study is based on secondary data resources. The main resources of information are journals, annual reports and sources of FAO. Reports from Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, online database on Indian Economy, research articles and magazines are also used for collection of data.

7). AGRICULTURAL PRODUCTION SCENARIO IN INDIA

Increasing profitability in agriculture through higher productivity has been an important goal in developing countries like India. It has become more relevant in recent years due to limited scope for expansion of arable land.

The latest statistics specifies the over all scenario of Agricultural production in the last five year plan period (Xth Five Year Plan).

TABLE NO.1 TARGETS AND ACHIEVEMENTS OF PRODUCTION OF MAJOR CROPS DURING TENTH (XTH) FIVE YEAR PLAN (2002-03 TO 2006-07) AND 2007-08

Crop	Achievements	Targets	Growth/decline
Rice	428.62	460.10	-31.48
Wheat	351.71	386.56	-34.85
Coarse Cereals	165.11	176.84	-11.74
Pulses	66.76	76.60	-9.84
Food grains	1012.20	1100.10	-87.9
Oilseeds	116.75	133.88	-17.13
Sugarcane	1398.47	1417.50	-19.03
Cotton	80.05	80.00	+0.05
Jute	54.89	58.36	-3.47

Source: Report of FAO, as on 9-07-2008

The above table shows the Xth Five-Year Plan period's production of major crops in India. From the above statistics it is to be concluded that the achievements in all crops' production in the 5 years period showed low performance compared to the targets except in the production of Cotton with a very slight margin.

8). WORK FORCE IN AGRICULTURE

The following table shows the percentage of work force engaged in agricultural activities in India from 1961 -2007.

TABLE NO.2

Year	1961	1971	1981	1991	2001	2007
% of Work force	69.5	69.7	66.5	64.8	59.8	52

Source: FAO report and Wikipedia.org

From the table, it is clear that the number of people engaged in agriculture is decreasing at a slow rate because of the development and opportunities in the industrial and service sectors. From this we conclude that, the declining work force has definite impact on the agricultural production.

9). PROBLEMS IN ACHIEVING FOOD SECURITY IN INDIA

Agricultural production has direct impact on food security. Increasing agricultural production stabilizes food security and therefore decreases the problem of insecurity. But the trends in the recent past are not encouraging for the nation. Declining agricultural production is the major concern for the nation in the recent past. The proportion of people dependent on agriculture are decreasing at a rapid speed and as a result, the impact is heavy on the agricultural yield. Some of the problems emerging in the recent past are:

1. News of starvation deaths & farmers' suicides from many states (from 2002-06, there are more than 17, 500 farmer suicides happened in India).
2. Stagnant agricultural production, and falling food availability
3. Unemployment has increased from 4 to 8% in ten years.
4. Regional disparities are increasing
5. Infant Mortality Rate(IMR) stagnating around 60 per 1000, it is 46 in Bangladesh
6. Immunisation coverage fell from 60 to 40% in 5 years.
7. More than 50% women are anemic.
8. 46% children are malnourished.
9. Declining child sex ratio during 1991-2001.

Some other factors which caused the problem of food insecurity in India are:

1. Perpetual food shortages and distribution problems are the major concern in India. The agricultural output's contribution is not reaching to the people due to the distribution inefficiency. As a result, stunting and chronic nutritional deficiencies rose in the recent past.
2. Water deficits are the second major problem. The water levels are falling in India due to widespread over pumping by using powerful diesel and electric pumps. This will lead to water scarcity and cutbacks in grain harvest.
3. Intensive farming is the other concern that leads to soil fertility and decline of agricultural yields.
4. Increasing cultivation of biofuel crops and cash crops making the production down fall in subsistence crops. The cash crop production (spices, rubber, tea etc.) became the important concern for the states. As a result, a small amount of arable land being used for food-grain cultivation.

5. The impact of global warming is heavy on agriculture. The global warming made the climatic conditions abnormal; as a result, the temperate is increasing. By 2035, Asia's biggest rivers – Ganges, Indus, Brahmaputra, Yangtze, Mekong, Salween and Yellow will disappear (Based on UN Climate report).
6. The implications of Climate change for the country's children are of major problem because of the problem of accessing clean water and food supplies.
7. The Green Revolution replaced much of the land used for pulses that fed Indian peasants for wheat, which did not make up a large portion of the peasant diet.
8. The Green Revolution also caused the shift of subsistence-oriented cropland to cropland oriented towards production of grain for export or animal feed.

10). STATISTICS ON FOOD SECURITY IN INDIA

The recent statistics on food security in India are not encouraging. Sharp cuts in investment on farm land development, irrigation and extension services vital for growth of agriculture in the last two decades have brought down the rate of growth of agricultural production, including food grains to less than the rate of growth of population in India. As a result, the agrarian crisis is deepening. To study the recent trends, statistical reports of Food and Agriculture Organization of the United Nations (FAO) are used.

A). DEPTH OF HUNGER

The following table shows the depth of hunger (Food deficit of undernourished population (kcal/person/day) of the select nine countries.

TABLE NO.3

Country name	1990-92	1995-97	2000-02	2004-06
Central African Republic	320	330	310	280
Cambodia	270	280	250	250
Canada	130	120	110	20
Japan	140	130	140	210
USA	110	110	100	100
Pakistan	270	260	270	280
India	290	270	260	260
China	260	260	250	250
Zimbabwe	330	350	340	310

Source: FAO Statistics Division (1990-92 to 2004-06)

DEPTH OF HUNGER (intensity of food deprivation)

- The intensity of food deprivation indicates how much food-deprived people falls short of minimum food needs in terms of dietary energy.
- It is measured as the difference between the minimum dietary energy and the average dietary energy intake of the undernourished population (food-deprived).
- The intensity of food deprivation is low when it is less than 200 kilocalories per person per day and high when it is higher than 300 kilocalories per person per day.
- The greater the food deficit, the greater the susceptibility for health risks related to under nutrition.

From the above statistics, India's depth of hunger has been steady despite the government's measures and steady production output in the recent past. India has been the second largest producer of wheat, rice, sugar, groundnut and inland fish in the world, but yet, India is one among the countries which its people are suffering from hunger and anemia. Japan, having the less agricultural resources depended heavily on imports managed a low intensity of food deprivation than India.

B). STATISTICAL REPORT OF FAO ON FOOD SECURITY IN INDIA

The following table shows the Food security indicators of India reported by Food and Agriculture Organization (FAO) of the United Nations, as on 12-10-2009.

TABLE NO. 4

INDICATORS	Units	1990-92	1995-97	2000-02	2004-06
1. Food Deprivation					
Proportion of undernourishment	percent	24	20	21	22
Number of Undernourished	millions	210.2	193.5	223	251.5
Food deficit of undernourished population	kcal/person/day	290	270	260	260
Food Needs					
Minimum dietary energy requirement(MDER)	kcal/person/day	1740	1750	1750	1770
Average dietary energy requirement(ADER)	kcal/person/day	2180	2200	2220	2240
Food Supply for Human Consumption					
Dietary energy supply(DES)	kcal/person/day	2310	2400	2360	2330
Total protein consumption	g/person/day	56.3	57.5	55.3	54.6
Animal protein consumption	g/person/day	8.9	9.8	10	10.3
Fat consumption	g/person/day	40.6	45.7	50	54.7
Diet Composition (Share in DES):					
Carbohydrate	Percent	74.5	73.3	71.5	69.4
total protein consumption	Percent	9.7	9.6	9.4	9.4
Animal protein consumption	percent	1.5	1.6	1.7	1.8
Fat	percent	15.8	17.2	19.1	21.2
II. Macro and Socio Economic Indicators					
Total population	1000	878861	972921	1064097	1134380
Density	lnh/sq/Km	296	327	358	382
Share of urban in total population	percent	25.8	26.8	27.9	28.7
Age dependency ratio	ratio	70.4	68.4	64.6	61.2
Macro economic aggregates					
GDP at market prices	MLN US\$	277407	369091	482266	647096
Cash surplus/deficit(in total GDP)	percent		-2.4	-4.3	-3.1
Share of agriculture value added in total GDP	percent	29.3	26.7	22.5	18.8
III. Poverty					
National (poverty headcount)-2000	percent				28.6
Rural (poverty headcount)-2000	percent				30.2
Urban(Poverty headcount)-2000	percent				24.7
IV.AGRICULTURE INDICATORS					
Total labour force	1000	368923	413935	459758	499339
Share of agricultural labour force (2) in total labour force	percent	63.6	61.4	59.2	57.3
Share of female in agricultural labour force	percent	36.1	36.6	37.1	37.4
V. HEALTH NUTRITIONAL AND SANITATION INDICATORS					
Child Nutritional Status	percent				48
Stunting, less than -2 s.d-2005	percent				1.9
Overweight, more than +2 s.d-5-06					
Life expectancy at birth	years	60	62	63	64
Under-five mortality rate-2007	per 1000 live births				72
Infant mortality rate(0-1 year)-2007	per 1000 live births				54
Access to safe water-2007	Percent				54.3
Access to adequate sanitation -2006	Percent				28
Maternal mortality ratio-2005	Per lakh				450

Source: FAO report on Food Security Indicators, Country: India

ANALYSIS

- The food deprivation and consumption indicators show that the proportion of under nourishment in India is steady from the period 1990-92. The number of undernourished is increasing at a slow rate. The major concern is the food deficit of undernourished population. At an average 270 kilo calorie per person per day is the food deficit of undernourished population. In the same period, total protein consumption showed slight downfall but the animal and fat consumption has been increasing with the increasing production and consumption of livestock in India in the recent past.
- Macro and Socio economic indicators show the increase in the population, GDP at market prices are increased. The share of agriculture value added in total GDP is decreasing in the above mentioned period.
- The poverty indicators show that the nation had overall 28.6% of poverty where as the rural share of poverty is higher than the urban poverty.
- The agriculture indicators show that the share of agricultural labour force in total labour force in India is decreasing rapidly. And the share of female in agricultural labour force is steady in the period.
- The health nutritional and sanitation indicators show that child nutritional status reached to 48%. Life expectancy at birth is increasing at a slow rate. Access to safe water reached only 54.3% which is a major concern. Access to adequate sanitation is 28% and the maternal mortality ratio reached 450 per one lakh live births. According to FAO, the major cause for this is due to lack of nutritious food.

C). REPORT OF MSSRF

The report of M.S. Swaminathan Research Foundation (MSSRF) on Food insecurity in rural India showed that the government should take necessary steps as the insecurity is rising at a great speed in all over the country. The Food Insecurity Map – Rural India pointed out that majority of the states in India are facing the problem of food insecurity.

TABLE NO.5

Type of Situation	Name of the State
Extremely insecure	Bihar, Jharkhand
Severely insecure	Uttarakhand, Uttar Pradesh, Rajasthan, Madhya Pradesh, Gujarat, Chattisgarh, Orissa
Moderately insecure	Andhra Pradesh, Karnataka, Maharashtra, West Bengal, Assam
Moderately Secure	Tamilnadu and Kerala
Secure	Punjab, Himachal Pradesh

Source: MSSRF's Food Insecurity Map- Rural India

11). INITIATIVES OF THE GOVERNMENT TO ENSURE FOOD SECURITY

The government has initiated several direct and indirect measures to ensure food security to its population. Some of the important measures are:

1. Food Subsidy Measures through Public Distribution system
2. Entitlement Feeding Programme through ICDS and other schemes
3. National Food Security Mission
4. Employment Programme

A). FOOD SUBSIDY MEASURES

The Public Distribution System (PDS) has been evolved as a system of management of scarcity and for distribution of food grains at affordable prices. Over the years, PDS has become an important part of Government's policy for management of food economy in the country. PDS is supplemental in nature and is not intended to make available the entire requirement of any of the commodities distributed under it to a household or a section of the society. PDS is operated under the joint responsibility of the Central and the State Governments. The central government, through FCI, has assumed the responsibility for procurement, storage, transportation and bulk allocation of food grains to the State Governments. The operational responsibility including allocation with in State, identification of families below the poverty line (BPL), issue of Ration Cards and supervision of the functioning of FPS, rests with the State Governments. The PDS was changed to Targeted Public Distribution System (TPDS) in 2000 to fulfill the food grain requirement of the poorest of the poor. With its two important programmes, i.e., Antodaya Anna Yojana (AAY) and Annapoorna Yojana, is serving 4 crore of BPL people with highly subsidized rate of Rs.4.15 per Kg of rice and Rs.5.65 per Kg of wheat. Annapoorna Yojana is serving 25 kg of food grains to BPL house hold per month.

The following table shows the stock position of food grains in the central pool.

TABLE NO.6

Year	2004	2005	2006	2007	2008	2009
Stock (In lakh tones)	250.16	216.97	192.60	174.92	191.87	361.89

Source: Annual Report: 2008-09, Department of Food & Public Distribution, Govt. of India

The recent statistics shows that India will build a strategic food grains reserve of five million tonne to meet emergency situations. Ware housing and storage capacity currently available with the Central Warehousing Corporation (CWC) and the State Warehousing Corporation (SWC) apart from the Food Corporation of India (FCI) and the state agencies are likely to be used to store the strategic reserve. All these efforts are made to ensure food security in the country.

B). ENTITLED FEEDING PROGRAMME

The two important programmes covered under the entitlement feeding programme are free meal under Integrated Child Development Services (ICDS) and Mid Day meal Scheme. The ICDS and Mid Day meal scheme are introduced with a target to improve the nutritional and health status for children, pregnant and lactating women. Launched on 2nd October 1975, today, ICDS Scheme represents one of the world's largest and most unique programmes for early childhood development. The objectives include:

- a. To improve the nutritional and health status of children in the age-group 0-6 years;
- b. To lay the foundation for proper psychological, physical and social development of the child;
- c. To reduce the incidence of mortality, morbidity, malnutrition and school dropout;
- d. To achieve effective co-ordination of policy and implementation amongst the various departments to promote child development; and
- e. To enhance the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition and health education.

The above objectives are sought to be achieved through a package of services comprising supplementary nutrition, immunization, health check-up, referral services, pre-school non-formal education and nutrition and health education.

C). NATIONAL FOOD SECURITY MISSION

A Centrally Sponsored Scheme on National Food Security Mission has been launched in the country to enhance the production of rice, wheat and pulses by 10, 8 and 2 million tonnes respectively by the end of the 11th Plan. The Mission covers 311 districts in 17 States and has become operational from Rabi 2007-08. The Rashtriya Krishi Vikas Yojana (RKVY) has been envisaged as a comprehensive intervention based on local agro-climatic conditions to enhance investment to achieve 4% agricultural growth rate in the 11th Five Year Plan. RKVY is a quantum jump in evolution from the variegated schematic approach followed so far through diverse but strait-jacketed schemes, to a completely new approach in agriculture planning by allowing the States to first plan a strategy and then design the schemes to meet that strategy by providing variety and flexibility in scheme design. Under Stream-I of RKVY States have undertaken projects in the field of Micro/Minor Irrigation, Watershed Development, Horticulture, Marketing Infrastructure etc. in 2007-08. An amount of Rs. 1247.59 crore has been released to States under RKVY during 2007-08. National Rainfed Area Authority has finalized and circulated common guidelines for watershed development programmes being implemented by different Ministries. Agricultural Extension has been strengthened and Agricultural Technology Management Agencies (ATMAs) have been set up in 565 districts by the end of 2007-08.

D). EMPLOYMENT PROGRAMMES

The Government of India has launched four key employment programmes. The aim of these programmes is to ensure that rural people get sufficient economic growth and to supply food grains to the needy people through various schemes. They are:

1. Food for Work Programme (FWP)
2. Jawahar Rozgar Yojana (JRY)
3. Sampurna Grameen Rozgar Yojana (SGRY)
4. National Rural Employment Guarantee Scheme (NREGS)

Under the FWP and SGRY food grain was supplied along with the wage to the labourers engaged in these two programmes, while under the NREGS hundred days wage employment is provided to one member of the family in a calendar year. All these collective programmes and schemes are introduced by the government to ensure that the agriculture yield to meet the demands of the people in India and to ensure that India achieved food security and sustainability in agriculture.

12). CHALLENGES FOR ACHIEVING FOOD SECURITY IN INDIA

Achieving inclusive growth and insuring food security is the major goal for nation in achieving inclusive growth in agriculture. But, various problems are creating obstacles to achieve the food security in India. Apart from this, there are so many challenges that are creating hurdles to the development of food security in India. Some of the important challenges for the nation to achieve food security are:

1. High economic growth rates have failed to improve food security in India leaving the country facing a crisis in its rural economy, warns the latest report released by the World Food Programme and the M S Swaminathan Research Foundation (MSSRF).
2. India's malnutrition figures are not coming down despite a number of government programmes, says a new report released by World Food Programme. The research points out the need for a revamped public distribution system and greater public investment to address the wants of rural population.
3. The report of WFP shows that slowing growth in food production, rising unemployment and declining power of the poor in India re combining to weaken the rural economy. Hence, it is a big challenge to rise employment and to contribute to the growth of food production.
4. Rising economic fluctuations made the agriculture sector to face the impact.
5. Declining water reserves made the agricultural sector tough. Government's irrigation projects and schemes should reach to the farming lands in order to face the problem.
6. Achievement of 4% growth in the fiscal year is a big aim for the government in 2010.
7. Implementing land reforms, finance and marketing services for farm produce is a tough task for the nation being faced with high illiteracy in rural areas.

8. Adaptation of modern agricultural practices and use of technology is inadequate.
9. Irrigation facilities are inadequate, hence made the farmers to depend heavily on rain fall.
10. For years, agricultural sector depended on Monsoon seasons. A good monsoon results in a robust growth for the economy and a poor monsoon leads to a sluggish growth.
11. The increase in severity of food insecurity in the various states are showing alarming signals that the nation should adopt strict policies and programmes to overcome the danger ahead in a short period.
12. Public distribution systems contribution to be further increased for both procurement and distribution.
13. With food inflation affecting the nation, it's a great challenge for the government of India to bring National Food Security Act that will assist the agriculture sector and contribute to the food security.
14. The PDS's contribution to the needy people who are of BPL is been under criticism. The latest reports from the state of Andhra Pradesh shows that the White ration cards (BPL families) are increasingly mis used. Such incident creates obstacles for the government to fulfill its goals.
15. Recently concluded World Food Summit's promise to eradicate hunger from the face of the earth sustainably and at the earliest date is the development agenda for the nations.
16. Bringing National Food Security Act to be implemented in India is a big challenge to the present government. Government's promise to give 25 kg or rice or wheat per month at Rs.3 a kg is a tough task with the growing economic fluctuations all over the world. The proposed law is expected to ease the woes of the common man, who is battling near 20 per cent food inflation.
17. Nation's production is not able to meet the supply to the needy rural people who are suffering from undernourishment. Removing weaknesses at different levels of governance improving public delivery mechanisms are the chief concerns to achieve inclusive growth and insuring food security.
18. Achieving double digit growth in GDP is highly depended on the agricultural production as its contribution is very important to the GDP growth. Giving the benefits to "aam aadami" and to focus on inclusive growth and insuring food security are the major goals for the government to be achieved in the 11th plan period.

13). CONCLUSIONS

Based on the study on "Inclusive growth and insuring food security – problems and challenges", the following conclusions are emerged.

1. Agriculture gave strong foundation to the Indian economy. The growing development in the industrial and service sectors made the agricultural sector to be less significant in the last 3 decades.
2. The 11th five year plan aimed on inclusive growth gave life to the agricultural sector and the inclusive growth in agriculture depended on growth in agri yield, reduction in poverty, income inequalities, health education and most importantly on food security in the country.
3. The Xth five year plan period showed decline in agricultural yield and the past records also showed the indicators of declining proportion of people depended on agriculture as main profession. The food, water, investment, technology deficits, excessive water usage, global warming, some of the negative impacts of green revolution caused the downfall in food grains production.
4. Being 2nd top producer of rice, wheat, yet India suffered from Food deprivation and depth of hunger which are rising very fast. The reports from MSSRF and FAO clearly indicated that rural people in India are the major sufferers of food insecurity. Rising Anemia and under nourished people are rapidly increased in the last 20 years.
5. The Government's focus on PDS brought a good contribution as the BPL people are benefited from the system. National Food Security Mission is aimed in achieving the growth in agricultural production which leads to more food security for the nation. Apart from this, several programmes and missions like ICDS, Rashtriya Krishi Vikas Yojana and Agricultural Technology Management Agencies are contributing to strengthen the agricultural sector and rural development to overcome the food insecurity problem.
6. Slowing growth in food production, migrating to other sectors for employment, decreasing fertile lands, water reserves made the agricultural production decline.

Rising expectations and targets made the government to be pro-active to achieve food security. India's achievement of high growth in GDP consequently depended on agriculture hence from the study it is clear that achieving growth in food production and effective supply through public distribution system to the needy people in the nation is must to achieve food security. Achievement of food security will contribute a lot in achieving inclusive growth in agriculture. Therefore, it is the responsibility of the government and the people to effectively co-operate to achieve the inclusive growth in agriculture through insuring food security.

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