

## ANALYSIS OF ECONOMIC AND SOCIAL DEVELOPMENT OF INDIAN ECONOMY

**Prof (Dr) S. K. Khatik,**

Professor and Head, Department of  
Commerce, Ex- Dean faculty of  
Commerce, Chairman, Board of Studies  
Commerce, Barkatullah University, Bhopal,  
India.

**Mr. Milind Patil,**

Research Scholar, Barkatullah University  
and Assistant Professor in Institute of  
Professional education and Research  
(IPER), Bhopal, India.

### ABSTRACT

*The purpose of this study is to get aware the readers about the common indicators for economic and social developments of Indian economy. To understand the economy in best way is to understand its components or sectors and its changing role of sectors in the economic development of the country. The paper reveals that the production in all the three sectors i.e. agriculture, industry and service sector has increased and find out the reasons which prove that service sector emerged as the largest producing sector in India. This is further analyzed by drawing attention of the readers to the other macroeconomic indicators like density, population growth, sex ratio, fertility indicators, human development indicator, literacy rate and poverty. In this study we find out that the sex ratio was unfavorable to females. The fertility indicators are analyzed by crude birth rate and total fertility rate these indicators shows the potentiality of population to get increase or decrease. The literacy rate of India has increased from 64.83% in 2001 to 74.04% in 2011 showing an increase of 9.21%. The poverty ratio declined continuously for both urban and rural areas. The study reveals that there has been a decline in the number of poor and their proportion*

**Keywords:** economic & social development, growth, population.

### Introduction:

India has abundant natural resources in terms of rich quality of soil, hundreds of rivers and tributaries, green forests, plenty of mineral deposits beneath the land surface, vast stretch of the Indian Ocean, ranges of mountains, etc. All these natural resources are available for our development and prosperity. India is the third largest economy in the world after United States of America and China. The structure of Indian economy exist today is not just of current making, it has its root in the history particularly at the time of under British rule which lasted for almost two hundreds of years. When India won its independence, the impact of British rule was showing in all aspect of the Indian economy. In a nutshell, the social and economic challenges before the country were enormous. During 1950 to 1990 the progress of Indian economy was impressive. The Indian industries became diversified as compared to the situation at independence. India became self- sufficient

in food production because of green revolution and zamindari system was abolished. Many people were dissatisfied with the performance of many public sector enterprises. Excessive government regulation prevented growth of entrepreneurship. In the name of self-reliance, our producers were protected against foreign competition and this did not give them the incentive to improve the quality of goods that they produced. Our policies were 'inward oriented' and so we failed to develop a strong export sector. The need for reform of economic policy was widely felt in the context of changing global economic scenario, and the new economic policy was initiated in 1991 to make our economy more efficient. The process of globalization through liberalization and privatization policies has both positive and negative results for India.

Since 1990 the reform process is completed one and half decade. The performance of Indian economy is measured by GDP the growth of GDP increased from 5.6% during 1980-91 to 8.2% during 2007-2012.

During the reform period, the growth of agriculture has declined. While the industrial sectors reported fluctuation, the growth of service sector has gone up. This indicates that the growth is mainly driven by the growth in the service sector. The 12<sup>th</sup> five year Plan (2012-2017) envisages the GDP growth rate at 9% to 9.5%. In order to achieve such a high growth rate, the agriculture, industrial and service sectors have to grow at the rates of 4% to 4.2%, 9.6% to 10.9% and 10% respectively.

The opening up of the economy has led to rapid increase in foreign direct investment and foreign exchange reserves. The foreign investment which includes foreign direct investment (FDI) and foreign institutional investment (FII) has increased from about US \$ 100 million in 1990-91 to US \$ 581.45 billion in 2014. There has been an increase in the foreign exchange reserves from about US \$ 6 billion in 1990-91 to about US \$ 350.37 billion in 2015. India is one of the largest foreign exchange reserve holders in the world.

India is seen as a successful exporter of auto parts, engineering goods, IT software and textiles in the reform period. Rising prices have also been kept under control.

On the other hand, the reform process has been widely criticized for not being able to address some of the basic problems facing our economy especially in the areas of employment, agriculture, industry, infrastructure development and fiscal management.

### **Growth and Employment:**

In the reform period the GDP growth rate has increased, some study point out that the reform-led growth has not generated sufficient employment opportunities in the country. In this study we have link between sectoral growth rate and employment.

### **Reforms in Agriculture:**

Reforms have not been able to benefit agriculture, where the growth rate has been decelerating.

Public investment in agriculture sector especially in infrastructure, which includes irrigation, power, roads, market linkages and research and extension (which played a crucial role in the Green Revolution), has been reduced in the reform period. Further, the removal of fertilizer subsidy has led to increase in the cost of production, which has severely affected the small and marginal farmers. This sector has been experiencing a number of policy changes such as reduction in import duties on agricultural products, removal of minimum support price and lifting of quantitative restrictions on agricultural products; these have adversely affected Indian farmers as they now have to face increased international competition. Moreover, because of export oriented policy strategies in agriculture, there has been a shift from production for the domestic market towards production for the export market focusing on cash crops in lieu of

production of food grains. This puts pressure on prices of food grains.

### **Reforms in Industry:**

Industrial growth has also recorded a slowdown. This is because of decreasing demand of industrial products due to various reasons such as cheaper imports, inadequate investment in infrastructure etc. In a globalised world, developing countries are compelled to open up their economies to greater flow of goods and capital from developed countries and rendering their industries vulnerable to imported goods. Cheaper imports have, thus, replaced the demand for domestic goods. Domestic manufacturers are facing competition from imports. The infrastructure facilities, including power supply, have remained inadequate due to lack of investment. Globalization is, thus, often seen as creating conditions for the free movement of goods and services from foreign countries that adversely affect the local industries and employment opportunities in developing countries.

### **Methodology:**

The present study is primarily based on secondary data collected from report published by the government of India (Economic Survey), United Nations Development Program (Human Development Report) and World Bank (World Development indicators). These reports are published every year. To analysis the data we have used statistical tools like percentage, common size statements and trend analysis are used. Following indicators are used for analysis:- Per capita income, GDP growth rate, Infant mortality rate, Total fertility rate, crude birth rate, density population, poverty line, headcount, HDI.

### **Objective of Study:**

The main objectives of the present study are:

- To examine the economic development of the India economy.
- To examine the social development of the Indian economy.

### **Hypothesis:**

This study fulfills the following hypothesis:-

- There is no significant contribution of agriculture, industry and service sectors and GDP.
- There is no significant relation between GDP and HDI.

### **Limitation**

- Non availability of sufficient literature and information.
- The research study is based on secondary data.

- Data are grouped and sub-grouped as per the requirement of the study.

### Justification:

The purpose of this study is to get aware the readers about the common indicators for economic and social developments of Indian economy. To understand the economy in best way is to understand its components or sectors and its changing role of sectors in the economic development of the country. This is further analyzed by drawing attention of the readers to the rapid growth of service sector.

### Literature Review:

Many researchers contributed to analyze the economic development of country. Some of the study reviews on the subject are available and found mixed evidence .Gill (1992) investigated the relationships between population growth and economic development for the economy of India. He concluded that population growth is good but up to some extent, while large population growth caused pressure on resources within the economy. Large population has negative impact on economic development.

Kothari (1999) investigated the relationships between population growth and economic development for the economy of India for the period of 1988 to 1998. He concluded that India is one of the world's fastest growing economies, primarily due to the rise in population growth creating a positive effect on its long run economic growth. India is now ranked one of the top producers in agriculture and is a top nation in terms of GDP in a developing country.

Shah ad et al. (2009) investigated the relationship between demographic variable and economic growth for the economy of Pakistan for the period of 1972–2006.They founded that the reduction in infant mortality rate and total fertility will help in accelerating the pace of economic growth in positive direction.

The link between public spending on education and economic growth is by now well-established in the literature. Starting with the work of Schultz (1961) education has been viewed as investment in human capital rather than considered to be consumption good under Keynes' influence. Subsequently, Blaug et al (1969), Tilak (1987) and Psacharopoulos (1993) show that investment in education yields a higher rate of return than investment in physical capita Romer (1986) and Lucas (1988) have propounded the new growth theories in which sustained long-run growth of per capita income is explained by the likelihood of investment in human capital generating constant or increasing returns.

Bruno and Easterly (1998) conclude that there was no evidence of a growth-inflation tradeoff in a sample which excluded discrete high inflationary crisis. On

the other hand, there was ample evidence to show that growth turned sharply negative when inflation crossed past a high threshold rate of 40 % per annum. They also argue that the failure of investigators in detecting a meaningful relationship between inflation and growth can be attributed to a stylized rapid recovery of output after inflation which, on an average, renders the overall statistical relationship insignificant.

Fisher (1935,1952), Clark (1940/1951, 1949), Kuznets (1972),studied major structural shifts in output and employment always accompany a sustained and rapid growth of per capita output of a country has been an established truism since the original studies of economic growth.

Riddle (1986) however emphasized the continuous importance of services studied the typical pattern involves initially a shift from an agricultural to an industrial economy through industrialization—an increase in the share of the industrial/secondary sector in output and employment combined with a declining importance of the agriculture/primary sector. The subsequent post-industrialization or de-industrialization stage is one whose chief feature is the rising importance of the services/tertiary sector, even at the expense of industry, or the transition to a service economy.

### Analysis:

The analysis of economic and social development of India has been done in two sections

- (i) Economic development
- (ii) Social development

### Economic Development:

The most common measure used to analysis the economic development of a country is GDP and its component, and per capita income. To estimate the size of an economy we used Gross Domestic Product or GDP.GDP is a comprehensive measure of a country's overall economic activity. GDP is defined as the market value of all final goods and services produced within an economy in a given period of time. GDP is broadly classified in three components (i)primary sector includes goods produce from exploiting natural resource like agriculture, dairy, fishing, forestry this sector is also called agriculture and related sector(ii) Secondary sector covers activities in which natural products are changed into other forms through ways of manufacturing that we associate with industrial activity (iii)Tertiary or service sector helps to develop primary and secondary sector.

Table 1: % of contribution in GDP			
	Agriculture	Industry	Services
1951	55%	16%	29%
1997	32%	25%	44%
2000	26%	24%	50%
2010	17%	26%	57%
2015	19%	28%	53%
Source: CSO India			

### Analysis of economic indicators:

Since 1950 the structure of Indian economy has gone through some remarkable changes. At the time of independence, agriculture and allied sector accounted for more than 50% of the country's GDP. During 1980 when India started liberalizing its policies, the economy has gone through a major structural shift. The contribution of agricultural sector has gone down drastically over the years and the share of services sector has increased sharply. The contribution of industry has largely remained stagnant (Ref. table no.1). A remarkable fact about India is that while there has been a change in the share of the three sectors in GDP, a similar shift has not taken place in employment. Table no.2 shows the share of employment in the three sectors in 1970-71 and 2014-15. The agricultural and allied sector continues to be the largest employer even now. But it has been also observed that the proportion of workers in agriculture sector in India has shown a decline over the last 45 years (72% in 1971 to 52% in 2015). Consequently, the participation rate in industrial sector (10% in 1971 to 15% in 2015) and services sector (18% in 1971 to 33% in 2015) has registered an increase. This indicates a shift of dependence of workers from farm-based occupations to non-farm based ones, indicating sectoral shift in the economy of the country.

For comparison between countries the total income is considered to be one of the most important attributes. Countries with higher income are more developed than others with less income. But this could not be a useful measure. Since, countries have different populations, comparing total income will not tell us what an average person is likely to earn. Hence, we compare the average income which is the total income of the country divided by its total population. The average income is also called per capita income. As per world bank report, countries with per capita income of US\$ 12616 per annum and above in 2012, are called rich countries and those with per capita income of US\$ 1035 or less are called low-income countries. India comes in the category of low middle income countries because its per capita income in 2014 was just US\$ 1218.74 p.a. (Ref. table no.3)

### Social Development:

The term development is commonly used as a catch-all phrase for something that includes, but extends beyond considerations of economic growth. Socio-economic development is frequently used as a proxy for per capita economic growth measured in real terms. Sometimes it is used with reference to the economic welfare of citizens; sometimes more broadly to include non-economic factors such as health, education, life expectancy, social inclusion, gender equity, social cohesion, freedom, democratic participation and good governance; and at others with reference to national investments in infrastructure, education, science and technology, energy and other fields deemed essential for national progress.

### Demographic Development:

The people are very important component of a country. India is the second most populous country after China in the world with its total population of 1210.20 million (2011). India's population is larger than the total population of U.S.A. Table no.4 reveals that during 2001-2011 the population of India increased by 17.5% whereas the population of China increased by 5.43%, which indicates that China has control over their population growth. Moreover it also shows that large population invariably puts pressure on its limited resources and is also responsible for many socio-economic problems in the country.

Table 2: Share of Sectors in Employment

Year	Agriculture	Industry	Services
1971	72%	10%	18%
2015	52.00%	15%	33%

Source: Planning Commission

Table 3: GNI Per Capita Income

Year	USD Constant Price
1960	226.36
1970	272.22
1980	293.17
1990	397.13
2000	566
2010	999
2012	1089.97
2013	1150.05
2014	1218.74

Source: IMF

Table 4: World Population

S.no	Country	Ref.date	Population (in million)	Decadal change (%)
1	China	01.11.2010	1341	5.43
2	India	01.03.2011	1210.2	17.64
3	U.S.A	01.04.2010	308.7	7.26
4	Indonesia	31.5.2010	237.6	15.05
5	Brazil	01.08.2010	190.7	9.39
6	Pakistan	01.07.2010	184.8	24.78
7	Bangladesh	01.07.2010	164.4	16.76
8	Nigeria	01.07.2010	158.3	26.84
9	Russia Fed	01.07.2010	140.4	-4.29
10	Japan	01.10.2010	128.1	1.1
11	Other countries	01.07.2010	2844.7	15.43
	World	01.07.2010	6908.7	12.97

Source: censusindia.gov.in

**Density of Population:**

Density of Population is expressed as number of persons per square kilometer. It helps in getting a better understanding of the distribution of population in relation to land. As per the data shown in table no.5, The population density of India in 1901 was 77 persons/sq.km and increased steadily in each decade to reach 382 persons/sq.km in 2011. This constitutes on an average 57 more people inhabit every square kilometer in the country as compared to 2001 census. As noted in table 4 India account 17.5% of total world population. On the other hand it constitute 2.4% of the world surface area of 135.79 million sq.km. As compare to the U.S.A. accounts for 7.2% of the surface area with only 4.5% of the world population

**Growth of Population:**

Growth of population is the change in the number of people living in a particular area between two points of time. Its rate is expressed in percentage. Population growth has two components- natural and induced. The natural growth is analyzed by assessing the crude birth and death rates. The induced component is analyzed by the volume of inward and outward movement of people in any given area. In this study we focused our analysis towards natural growth.

It has been observed in the table no. 6 that the decadal growth rates of population in India was very high and increases steadily. The CAGR of India's population from the year 1901 to 2011 was 2.4%. Crude birth rate and death rate per thousand was 49.20 and 42.60 in 1921 respectively and in 2011 the crude birth rate and death rate per thousand decline to 25.10 and 18.20 respectively.

The composition of population by gender is one of the primary demographic characteristic of human population. Sex ratio is one widely used ratio to know the number of females per 1000 males in the population. As per table no.6 the sex ratio of India was

940 in 2011, which is highest since 1971 (Ref. table no.6).

Crude birth rate is average annual number of births during a year per 1,000 persons in the population at midyear. The birth rate is one of the factors to determine the rate of population growth. It depends on both the level of fertility and the age structure of the population. The crude birth rate at all India level had declined from 41.10 in 1971 to 37.2 in 1981, registering a fall of about 9.48%. During 1991 to 2011, the decline has been about 14.92% from 29.5 to 25.1 (Ref. table no.6).

Crude Death rate is average annual number of deaths during a year per 1,000 population at midyear. Crude death rate is a rough indicator of the mortality situation in a country. This indicator is significantly affected by age distribution, and most countries will eventually show a rise in the overall death rate, in spite of continued decline in mortality at all ages, as declining fertility results in an aging population. The

Table 5: Density of Population

Year	Density (per.Sp.km)	Absolute Increase	% age Increase
1901	77	-	-
1911	82	5	6.5
1921	81	-1	-1.2
1931	90	9	11.1
1941	103	13	14.4
1951	117	14	13.6
1961	142	25	21.4
1971	177	35	24.6
1981	216	39	22
1991	267	51	23.6
2001	325	58	21.7
2011	382	57	17.5

Source: censusindia.gov.in

Year	Population	Decade growth (%)	Crude Birth rate	Crude Death rate	Infant Mortality rate	Total fertility rate	Sex Ratio
1901	238396327	-	N.A	N.A	N.A	N.A	972
1911	252093390	5.75%	49.20	42.60	N.A	N.A	964
1921	251321213	-0.31%	48.10	47.20	N.A	N.A	955
1931	278977238	11%	46.40	36.20	N.A	N.A	950
1941	318660580	14.22%	45.90	37.20	N.A	N.A	945
1951	361088090	13.31%	39.90	27.40	N.A	N.A	946
1961	439234771	21.64%	41.70	22.80	162.50	5.90	941
1971	548159652	24.80%	41.10	19.00	140.60	5.51	930
1981	683329097	24.66%	37.20	15.00	111.30	4.76	934
1991	846421039	23.86%	29.50	9.80	86.10	3.95	927
2001	1028737436	21.54%	26.20	9.00	64.20	3.24	933
2011	1210193422	17.64%	25.10	18.20	44.40	2.56	940

Source: Censusindia.gov.in and world bank report

crude death rate at all India level had declined from 19.0 in 1971 to 15.0 in 1981, registering a fall of about 21.05%. During 1991 to 2011, the rise has been about 85.71% from 9.80 to 18.20 (Refutable no.6).

Infant mortality rate is the number of deaths of infants under one year old in a given year per 1,000 live births in

the same year. It includes total death rate and deaths by sex-male and female. This rate is often used as an indicator of the level of health in a country. The infant mortality rate at all India level had declined from 140.60 in 1971 to 111.30 in 1981, registering a fall of about 20.83%. During 1991 to 2011, the decline has been about 48.43% from 86.10 to 44.40 (Refutable no.6).

Total fertility rate (TFR) is the average number of children that would be born per woman if all women lived to the end of their childbearing. This indicator is a more direct measure of the level of fertility than the crude birth rate, since it refers to births per woman. The total fertility rate at all India level had declined from 5.51 in 1971 to 4.76 in 1981, registering a fall of about 13.61%. During 1991 to 2011, the decline has been about 35.19% from 3.95 to 2.56 (Ref. table no.6).

### Human Development:

There is no doubt that level of income is important, yet it is an inadequate measure of the level of human development. There could be a long list to gauge the human development but then also it would not be useful. So in this study we have used the Human Development Index (HDI) published by UNDP compares countries based on the educational level of their people, their health status and per capita income. We have taken certain relevant data regarding India and its neighbors from Human Development Report 2015. (Refutable no.7)

India with a population of over 121 crore is ranked 130 among 187 countries of the world in terms of the Human Development Index (HDI). With the composite HDI value of 0.609 India finds herself grouped with countries showing medium human development (UNDP 2015).

Table no. 7.1 shows the year wise comparison of India's GDP per capita, life expectancy, adult literacy, Human Development Index (HDI) and GDP. GDP per capita increased from USD 748.85 in 2005 to USD 1,688.38, registering a growth rate of 125% from 2005. In 2005 life expectancy of a person was 62.7 years which increased to 68 years, indicating good health facilities. Literacy rate is also increased from 65.2% in 2005 to 70.1% in 2014. India has also improved its ranking in HDI index. As per Global Human Development Report 2015 India's position in the world is 130.

### State of Literacy

The level of literacy and educational qualifications are important indicators of the development society. A person aged seven and above who can both read and write with understanding in any language is treated as literate. A person who can only read but cannot write is not literate.

Table 8 provides the literacy rate for India by sex during 1901 to 2011. The literacy rate from 1901

onwards shows a consistent increase both for males and females.

Table 9: Estimates of poverty in India

Year	Poverty ratio%			Head count (in million)		
	Rural	Urban	Combined	Rural	Urban	Combined
1973-74	56.4	49	54.9	261.3	60	321.3
1977-78	53.1	45.2	51.3	264.3	64.6	328.9
1983	45.6	40.8	44.5	252	70.9	322.9
1987-88	39.1	38.2	38.9	231.9	75.2	307
1993-94	50.1	31.8	45.3	328.6	74.5	403.7
1999-2000	27.1	23.6	26.1	193.2	67	260.2
2004-05	41.8	25.7	37.2	326.3	80.8	407.1
2009-10	33.8	20.9	29.8	278.21	76.47	354.68
2011-12	25.7	13.7	21.9	216.5	52.8	269.3

Source: Planning Commission

Table 7 HDI rank and its Components

Country	Per capita GNI in US\$ (Constant 2005 PPP)	Life Expectancy at birth (Year)	Expected years of schooling	HDI Rank in world	Level
Sri Lanka	9779	74.9	13.7	73	High
China	12547	75.8	13.1	90	High
India	5497	68	11.7	130	Medium
Bangladesh	3191	71.6	10	142	Medium
Nepal	2311	69.6	12.4	145	Low
Pakistan	4866	66.2	7.8	147	Low
Myanmar	4608	65.9	8.6	148	Low

Source: Human Development Report 2015

Table no. 7.1 comparison

Years	GDP Per capita USD million	Life Expectancy (Years)	Adult literacy (%)	HDI	GDP USD Million
2005	748.85	62.7	65.2	0.53	834.218
2006	839.927	63	65.2	0.49	949.118
2007	1,080.89	63.4	66	0.50	1,238.70
2008	1,053.44	63.7	66.8	0.55	1,224.10
2009	1,159.06	64	67.5	0.51	1,365.37
2010	1,429.60	64.4	68.3	0.59	1,708.46
2011	1,513.85	64.9	69.3	0.60	1,843.02
2012	1,476.93	65.2	70	0.60	1,835.82
2013	1,488.99	66.4	70.1	0.60	1,875.16
2014	1,607.65	68.0	70.1	0.61	2,051.23
2015	1,688.38	N.A	N.A		2,182.58

Source: IMF and Global Human Development Report 2015

### Poverty:

The method which is used to measure poverty is based on income or consumption levels. Any person whose income or consumption level falls below the minimum level (necessary to fulfill basic needs) is considered as poor. Basic necessities of people vary according to time and place. Each country uses an imaginary line that is considered appropriate for its existing level of development. In India the poverty line for a person was fixed at Rs 860 per person a month for rural areas and for urban areas it was Rs 1210.

Table 8: Literacy rate

Census Year	Persons	Males	Females
1951	18.33%	27.16%	8.86%
1961	28.30%	40.40%	15.35%
1971	34.45%	45.96%	21.97%
1981	43.57%	56.38%	29.76%
1991	52.21%	64.13%	39.29%
2001	64.83%	75.26%	53.67%
2011	74.04%	82.14%	65.46%

Source: Censusindia.gov.in

Table 10: Poverty comparison

Country	% of population below \$1.25 a day
Nigeria	62
Bangladesh	43.3
Nepal	23.7
India	23.6
Indonesia	16.2
Pakistan	12.7
China	6.3
Srilanka	5.6
Brazil	3.8
Bhutan	2.4

Source: UNDP 2015 Report

Table no 11: t-Test paired two sample for Means

	HDI	GDP
Mean	0.558022245	0.13784
Variance	0.002191562	0.03471
Observations	10	10
Pearson Correlation	0.279633108	
Hypothesized Mean Difference	0	
df	9	
t Stat	7.425152347	
P(T<=t) one-tail	1.9978E-05	
t Critical one-tail	1.833112923	
P(T<=t) two-tail	3.99561E-05	
t Critical two-tail	2.262157158	

Table 12: ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	1.97717	15	0.13181	17.3567	6.4E-14	1.89487
Columns	0.00713	3	0.00238	0.31315	0.81577	2.81154
Error	0.34174	45	0.00759			
Total	2.32604	63				

It is clear from the Table no.9 that there is substantial decline in poverty ratios in India from 54.9% in 1973-74 to 29.8% in 2009-10. The proportion of people below poverty line further came down to 21.9% in 2011-12. Although the percentage of people living under poverty declined in the earlier two decades (1973–1993), the number of poor remained stable in the range of 300-400 million for a fairly long period.

As per World Bank people living on less than USD 1.25 per day is living in extreme poverty condition. Table no 10 shows the proportion of people living under poverty in different selected countries. In Nigeria 62% of population is living below poverty line followed by Bangladesh, Nepal, India, Indonesia, Pakistan, China, Srilanka, Brazil and Bhutan.

### Hypothesis Testing:

#### Null Hypothesis

$H_{01}$ : There is no significant difference in human development index (HDI) and Gross domestic product (GDP).

To check the hypothesis we applied “t” test (Ref.annexure I)

It can be seen in table no.11 that the “t” value corresponding to the two tail value is 3.99 with a critical value of 2.26. Since calculated value is more than the critical level of 2.26, we reject null hypothesis ( $H_0$ ). Hence we conclude that there is significant difference in value of HDI and GDP.

#### Null Hypothesis

$H_{02}$ : There is no significant contribution of agriculture, industry and service sectors in India GDP.

To check the hypothesis we have applied ANOVA (Ref.annexure I)

It can be observed from table no.12 the calculated value of F for row is 17.35. This is greater than the critical value 1.89 and falls in the rejection region. Hence, the null hypothesis is rejected.

The calculated value of F for columns is 0.31. This is less than the critical value 2.81 and falls in the acceptance region. Hence, the null hypothesis is accepted.

There is enough evidence to believe that there is year wise significant difference in the contribution of agriculture, industry, services and GDP.

### Findings:

- **Economic development:** Over fifty years the production in all the three sectors has increased, it has increased the most in services sector. There are some reason which prove that service sector emerged as the largest producing sector in India—first, basic services like hospitals, educational institutions, post and telegraph services, bank, insurance, defence, transport etc. are become necessity of the people, second the development



of agriculture and industry leads to the development of services such as transport, trade, storage. Third income levels rise, certain sections of people start demanding many more services like eating out, tourism, shopping, private hospitals, private schools, professional training etc. Fourth over the past decade certain new services like Information Communication and Technology (ICT) have become important and essential.

- **Density:** India is highly density populated country as compare to the U.S.A; it puts immense pressure on the Indias' natural resources and existing infrastructural facilities and adversely affects the quality of life. The absolute increase in the density of population is a matter of concern but the positive feature is that the rate of increase has slowed down and has shown a sharp decline in the last decade.

- **Population Growth rate:** In the period 1901 to 1921 the population growth rate was stagnant. Since in this period growth rate was very low and recorded negative growth rate during the year 1901 to 1921. Both the birth rate (48.10) and death rate (47.20) were high but keeping the overall population growth rate low.

The period 1921 to 1951, the population growth rate was steady. An overall improvement in the health and sanitation throughout the country brought down the mortality rate. The crude birth rate (39.90) remained high in this period leading to higher growth rate in population as compared to previous period of 1901 to 1921.

The period 1951 to 1981 was the period of explosion in the population of India, which was caused by a rapid fall in the mortality rate but a high fertility rate in the population of the country. In the period 1981 to till now, the growth rate of country's population though remained high, has started showing down gradually. The downward trend of crude birth rate is responsible for such population growth. The growth rate of population is still high as compared to other countries.

- **Sex ratio:** The sex ratio in India was unfavorable to females. The study reveals that in pre-independence period, the sex ratio declined consistently up to the year 1951 when it raised marginally. In the post-independence period, the trend continued and the sex ratio slipped down for two consecutive decades after 1951 to reach 930 in 1971.
- **Fertility Indicator:** In this study the fertility indicator consider as crude birth rate and total fertility rate. These indicators show the potentiality of population to get increase or decrease. If total fertility rate is above two which indicate population is growing in size. Higher rate may also indicate difficulties for families to feed

and educate their children and for women to enter the labor force. If fertility rate is below two it indicate population is decreasing in size and growing older. Global fertility rates are in general decline and this trend is mostly found in industrialized countries.

- **Human development:** Human development index reveals that Srilanka, smaller country as compare to India but in terms of human development it is much ahead of India in every respect and a big country like India has such a low rank in the world.
- **State of literacy:** The literacy rate of India has increased from 64.83% in 2001 to 74.04% in 2011 showing an increase of 9.21%. The literacy rate for males and females was 82.14% and 65.46% respectively in 2011. However efforts are still required to achieve the target of 85% set by the planning commission.
- **Poverty:** The poverty ratio declined continuously for both urban and rural areas. The study reveals that there has been a decline in the number of poor and their proportion but the nature of decline in the two parameters are not encouraging. The ratio is declining much slower than the head count in the country. It has been also observed that the gap between head count of poor in rural and urban areas got reduced whereas in the case of ratio the gap remained the same until 1999 - 2000 and has widened in 2004 to 2010.

#### Suggestions:

- A remarkable fact about this study is that there has been change in the share of the three sectors in GDP but a similar shift has not been taken place in employment. The agriculture sector continues to be the largest employer even now but the employment in agriculture is not good because it depends on monsoon, workers are underemployed and not all people are employed so government should bring such a scheme where people get more opportunity in industry and service sector and such schemes should be properly planned and supported by government.
- It has been observed that not the entire service sector is growing equally well in India. Service sector employs many different kinds of people. There are limited numbers of services that employ highly skilled and educated workers. There are large number of workers engaged in services such as small shopkeepers, repairs persons, transport persons etc. they are barely manage to earn living and yet they perform these services because no alternatives are available so only part of the sector is growing. Government should plan and properly implemented such a schemes that can increase the skills and income of all section of the society.



- India's per capita income is less as compare to other country in the world. Government should implement the 7<sup>th</sup> pay commission as early as possible and it should be properly implemented in all section of the society.
- As the density of population is growing it should be under control because it will increase the pressure on existing infrastructure and environment.
- Government should bring such a schemes where peoples are encouraged to have girls in their family so that sex ratio of India will get increase.
- Government should increase public spending in healthcare to improve the quality of human capital. Increase the literacy rate and strengthen the quality of primary and secondary education.
- Provide training to unskilled farm labour so they may be employable in more productive areas such as manufacturing, construction, etc.

#### References:

- [1] Ahluwalia M S (2002). Economic reforms in India since 1991: has gradualism worked?", *Journal of Economic Perspectives*, 16, 67-88.
- [2] Arif R R (1996): Money demand stability: myth or reality - an econometric analysis, Development Research Group Study No 13, Reserve Bank of India.
- [3] Ambler, S., & Cardia, E. (1997). Testing the link between inflation and growth. In *Proceedings of the conference on price stability, inflation targets and monetary policy*. Ottawa: Bank of Canada.
- [4] Fischer, S (1993): 'The Role of Macro-economic Factors in Growth', *Journal of Monetary Economics*, Vol 32(3).
- [5] Misra B S (2003): —Analytics of credit-output nexus in India", Reserve Bank of India Occasional Papers, 24, 145-171.
- [6] UNDP (2015), *Human Development Reports*, [online] <http://hdr.undp.org/en/>.
- [7] GOI, Planning Commission (2012-2017), 12th Five Year Plan, Vol. I.
- [8] Shah, A. M., B. S. Baviskar, and E. A. Ramaswamy (eds.) (1996). *Social Structure and Change, Volume I: Theory and Method—Evaluation of the Work of M. N. Srinivas*. New Delhi: Sage Publications.
- [9] Todaro, P., 2004. Stephen CS. *Economic Development*. (8th Ed) Singapore; Pearson Education.
- [10] Afzal, M., 2009. Population Growth and Economic Development in Pakistan, *The Open Demography Journal*, 2: 1-7.
- [11] GOI, Economic Survey-2014-15, <http://indiabudget.nic.in/survey.asp>.
- [12] Acharya, Shankar (2007), "India's Growth: Past Performance and Future Prospects", paper for presentation at the Eighth Annual Global Development Conference of the Global Development Network, January 14–16, 2007.
- [13] Banga, Rashmi (2005), "Critical issues in India's Service-Led Growth", Working Paper No.171, Indian Council for Research in International Economic Relations (ICRIER), New Delhi.
- [14] Clark, Colin (1949), "Theory of Economic Growth", *Econometrica*, Vol. 17, Supplement: Report of the Washington Meeting, July.
- [15] Dasgupta, Sukti and Ajit Singh (2005), "Will Services be the New Engine of Economic Growth in India?", Working Paper No. 310, Centre for Business Research, University of Cambridge.
- [16] Joshi, Seema (2004), "Tertiary Sector-Driven Growth in India", *Economic and Political Weekly*, Vol. 39, No. 37, September 11.
- [17] Mohan, Rakesh (2008), "Growth Record of the Indian Economy, 1950–2008: A Story of Sustained Savings and Investment", *Economic and Political Weekly*, Vol. 43, No. 19, May 10.
- [18] Nagaraj, R. (1991), "Excess Growth of Tertiary Sector?", *Economic and Political Weekly*, Vol. 26, No. 5, February 2.
- [19] Virmani, Arvind (2004a), "India's Economic Growth: From Socialist Rate of Growth to Bharatiya Rate of Growth", Working Paper No. 122, Indian Council for Research in International Economic Relations (ICRIER), New Delhi.
- [20] Srinivasan, T.N. (2005), Comments on "From 'Hindu Growth' to Productivity Surge: The Mystery of the Indian Growth Transition", *IMF Staff Papers*, Vol. 52, No. 2.

Annexure- I				
Years	Agriculture	Industry	Services	GDP
2000	2.84%	6.19%	4.20%	8.00%
2001	0.26%	6.50%	5.07%	4.15%
2002	5.52%	2.70%	6.61%	5.39%
2003	-4.90%	7.07%	6.74%	3.88%
2004	8.23%	7.88%	7.89%	7.97%
2005	1.13%	10.04%	8.28%	7.05%
2006	4.64%	10.68%	10.91%	9.48%
2007	4.58%	12.66%	10.06%	9.57%
2008	5.52%	10.27%	10.27%	9.32%
2009	0.36%	4.66%	9.98%	6.72%
2010	1.47%	9.46%	10.50%	8.59%
2011	8.32%	7.64%	9.67%	8.91%
2012	113.46%	94.08%	40.64%	66.63%
2013	0.98%	2.72%	8.04%	4.93%
2014	3.92%	4.44%	9.05%	6.64%
2015	1.28%	6.32%	10.63%	7.50%
Source:CSO				

Annexure:II		
Years	HDI	GDP
2005	52.71%	7.05%
2006	49.10%	9.48%
2007	50.00%	9.57%
2008	55.41%	9.32%
2009	51.20%	6.72%
2010	58.60%	8.59%
2011	59.70%	8.91%
2012	60.00%	66.63%
2013	60.40%	4.93%
2014	60.90%	6.64%
Source:CSO		

\*\*\*\*\*