



ISSN: 0976-3031

Available Online at <http://www.recentscientific.com>

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research

Vol. 14, Issue, 10, pp.4260-4265, October, 2023

**International Journal of
Recent Scientific
Research**

DOI: 10.24327/IJRSR

A review

“DOES DEMOGRAPHIC DIVIDEND LEAD TO ECONOMIC GROWTH IN INDIA?”

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DOI: <http://dx.doi.org/10.24327/ijrsr.20231410.0800>

ARTICLE INFO

Article History:

Received 8th September, 2023

Received in revised form 20th September, 2023

Accepted 12th October, 2023

Published online 28th October, 2023

Keywords:

Demographic Transmission, Demographic Dividend, Age Structure, Economic Growth, Labour Force Participation Rate

ABSTRACT

The demographic dividend provides strong advantages to the countries for achieving a high growth rate due to the increasing working-age population, labour force participation and skilled labour force. India is one of the largest countries in the world in terms of population next to China. India has the potential to convert this high population into a demographic dividend due to the large pool of working-age population, higher labour force participation and increased skilled labour force. The current paper attempts to examine the association between demographic dividends and economic growth with reference to India. This study is based on secondary data. The study found that India has the potential to use its large pool of working-age population as an opportunity and increase the economic growth and development of the country.

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INTRODUCTION

The demographic dividend means changing the structure of the age population. The change in the population's age structure leads to changes in the balance between the number of people who are producing and the number of people who are consuming. The demographic dividend is creating a window of opportunity when the share of the working-age population is rising to its total population. The demographic dividend plays a vital role in the economic growth and development of the countries due to the declining mortality rate, the fertility rate of the population and changing the population's age structure. The higher working-age population increased labour force participation and increased the skilled labour force, which plays an important role in the country's overall economic growth and development. The opportunities of demographic dividends can be converted into higher economic growth and development of the country if the competent authority adopts appropriate social and economic policies to utilize these benefits.

There is research conducted by research scholars, demographers and policymakers on the demographic dividend and its impact on economic growth in India and the world. Here are some existing pieces of literature that have been studied for research work. The Bloom. D (2011) have found that changing the demographic age creates a strong signal for economic growth and development, and India's policymakers can use various policy option to make potential dividend into

reality. Bloom, D. and Canning, D. (2011) have explained that economic growth does not automatically accelerate as fertility declines working age of the population increases. Demographic dividend depends on effective policies such as good governance, efficient infrastructure, and well-functioning health, education, and training et. Effective investment in health, education, and training. Lack of effective policy and inefficient infrastructure can lead to demographic disaster. The studies show that policy does matter for demographic dividends and economic growth. Ladusingh Laishram and Narayana M.E. (2011), have estimated that demographic dividend and income growth are dependent on appropriate policy. His result shows that a strong and conducive policy environment plays a vital role in higher economic growth in India. S. Amer *et al* (2016) stated that the Changes in age structure have been recognized as potentially having a significant feedback effect on income per capita growth, savings, and poverty reduction. Mukherjee Atri, *et al* (2019) have tried to examine the impact of demographic changes and their impact on macroeconomic outcomes in India. They have found that the population growth and age dependency ratio have an inverse relation with real growth and per capita income. Singh Paramjit and Kumar Surinder (2021) stated that the transformation of demographic potential into a demographic dividend is based on the policy adopted by the state government to promote health, education, and the development of skills among the youth. These studies show that the potential of demographic dividend can be

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possible to convert into economic growth if required policy measures are adopted by the competent authority.

Every Populus country in the world is trying to utilize its working-age population in the best possible manner. Because if the population is utilized in proper ways, it will be an asset for the nation otherwise it will be a disaster for the nation. Indian economy is also harnessing the windows of opportunities for a demographic dividend. The current study attempted to examine the “Does Demographic Dividend Lead to Economic Growth in India?”.

RESEARCH OBJECTIVE

The study is based on various objectives such as to study the trends and progress of demographic dividend, to study the demographic dividend and economic growth, to study the challenges associated with demographic dividend and economic growth in India and study the measures initiated by the government of India to harness the demographic dividend.

RESEARCH METHODOLOGY

The present research is based on secondary data, and it is descriptive as well as quantitative in nature. The data collected for the research work is from the publications of Central and State Governments, National and International Agencies like the World Bank, the United Nations, and the Asian Development Bank. Publications from Population Census, RBI such as Annual Reports of RBI, Handbook of Statistics on the Indian Economy, and Indian states. The various research papers and books are also considered in this research work. The required statistical tools and techniques have been used for the analysis of collected data. The current study attempts to examine the demographic dividend and economic growth in India.

Demographic Dividend and Economic Growth

The concept of demographic dividend is an important phenomenon that arises when a country experiences birth and death rates decline. Due to this, the population structure is shifting towards a higher proportion of working-age individuals which leads to increased economic growth, as there are more people of working age who can contribute to the economy. When a country's population is shifted towards higher working-age individuals, it experiences a higher labour force participation rate and a lower dependency ratio.

This can lead to increased productivity, higher savings rates, and greater investment in human capital, all of which can contribute to economic growth.

However, to get the proper benefits of the demographic dividend, it is very important for a country to make investments in education, healthcare, and other social services to ensure the working-age population is healthy, skilled, and productive. Additionally, it is also very important for the policymakers to make policies that encourage job creation and entrepreneurship to fully utilize the potential of the working-age population. The current demographic profile of the Indian economy is important for better economic growth and development if these are utilized in the appropriate ways. The Indian demographic situation is hopeful for the world economy due to the declining working-age population in most countries. This is creating a window for India's large pool of skilled population as a dividend. This section explores the association between different parameters on demographic dividends.

OVERVIEW OF DEMOGRAPHIC TRENDS IN INDIA

The Indian economy has around 2.4 per cent of the total land area of the world and around 17 per cent world's population is living in this area. As per the census of 2011, India's total population is 1.21 billion which makes India the second-largest country in the world next to China. The decadal Growth rate of India's population is 17.70 per cent from 2001 to 2011 as compared to 21.54 per cent from 1991 to 2000. The growth rate of India's population has declined in the recent decade from an annual growth rate of 1.63 per cent in 2001-2011 to 1.94 per cent in 1991-2000. The declining trends have been witnessed by all major Indian states except a few. The declining trends of population growth in India's southern states are more as compared to northern states. The rapid growth rate of the population in India is accompanied by a decline in the mortality rate and an increase in the per capita income of the country. The details of the sex ratio, density of population and urbanization are given below.

Table No.1 explains the key demographic profile of the Indian Economy. As per the table, the density of the population in India was 382 in 2011 as compared to only 117 in 1951. As per the census of 2011 in India, the sex ratio of India is 940 in 2011

Table No 1 Key Demographic Variables and Vital Statistics 1951-2011

Sr. No.	Demographic Variables	1951	1961	1971	1981	1991	2001	2011
1	Population (in millions)	361.09	439.23	548.16	683.33	846.42	1028.61	1210.85
2	Decadal Growth Rate of Population	13.31	21.51	24.8	24.66	23.87	21.54	17.7
3	Average annual growth rate of the population	1.25	1.96	2.22	2.2	2.14	1.95	1.63
4	Sex Ratio	946	941	930	934	927	933	940
5	Density of Population	117	142	177	216	267	325	382
6	Urbanisation	17.29	17.97	19.91	23.33	25.7	27.81	31.14

Source: Census of India 2011

as compared to 946 in 1951. It means the sex ratio has declined from 1951 to 2011. The trends of urbanization have increased up to 31.14 per cent as compared to only 17.29 per cent in 1951. The trend of urbanization shows that people prefer to settle in an urban area as compared to a rural area. But still, more than 65 per cent of the population is staying in rural areas which is extremely high in percentage as well as numbers.

Working-Age Population: The working-age population for any country is an asset for growth and development if only utilized appropriately. India is one of the youngest countries in the world with 64.29 per cent of the working-age population. The working-age population is playing a very vital role in determining the size of labour force participation in India. This section explains the association between demographic dividend and the working-age population in India.

Table No 2 Status of Working Age Population in India

Years	1951	1961	1971	1981	1991	2001	2011
Total Population (Billions)	36.10	43.92	54.81	68.33	84.63	102.87	121.10
Working Age Population (%)	57.1	54.4	55.85	57.18	58.32	61.18	64.29

Source: Census 2011 and World bank 2019

Table No. 2 shows the working-age population which comes under the age of 15-64 years. As per the table, India’s working-age population has increased from 57.1 per cent in 1951 to 64.29 per cent in 2011 out of the total population. The working-age population in India is increasing and the dependency ratio of the population is less and is declining which are good indicators of effective management of the population.

Dependency Ratio: To check the changing age structure of the population, the dependency ratio is one of the best indicators. The dependency ratio is defined as the population above 65-years of age who is not working, and depend on the working-age population. If the ratio is lower, it implies that the population is more productive. (RBI 2019). This section explains the dependency ratio of the Indian population and its comparison to the rest of the world. The detail of the dependency ratio is as follows:

Table No. 3: Dependency Ratio (65 and above) (per 100 people ages 15-64

Sr. NO.	Country	Dependency Ratio
1	Japan	53.2
2	USA	32.5
3	Canada	36.7
4	France	40.4
5	United Kingdom	34.5
6	Mauritius	26.7
7	UAE	6.4
8	Indonesia	13.5
9	Bangladesh	10.7
10	India	12.5

Source: UNDP Human Development Report 2020

Table No. 3 explains the dependency ratio of the total population. As per the table, the dependency ratio of Japan is extremely high compared to India. India’s dependency ratio is

very less as compared to the developed nations which is a good sign for India. In developing economies like India, Bangladesh, UAE, and Indonesia’s Dependency ratio is very low and it’s a good sign for those nations where the dependency ratio is higher. These nations are the future suppliers of the labour force to these developed nations. The lower dependency ratio means a more productive population is available in the country. A lower dependency ratio indicates that a nation can utilize its resources in productive work which is good for overall growth and the development of the country.

Demographic Rate: The demographic dividend will rise due to the results of the increasing working-age population and higher labour force participation in the country. The working-age population will rise due to the declining total fertility rate and dependency ratio. The table shows the birth rate, death rate, infant mortality, and total fertility rate in India. These trends are important for the economy to create a window of demographic dividend for the country.

Table 4 Infant Mortality Rate, Total Fertility Rate, Birth Rate and Death Rate (%)

Years	Birth Rate	Death Rate	Infant Mortality Rate	Total Fertility Rate
2009	22.5	7.3	50	2.6
2010	22.1	7.2	47	2.5
2011	21.8	7.1	44	2.4
2012	21.6	7.0	42	2.4
2013	21.4	7.0	40	2.3
2014	21.0	6.7	39	2.3
2015	20.8	6.5	37	2.3
2016	20.4	6.4	34	2.3
2017	20.2	6.3	33	2.2
2018	20.0	6.2	32	2.2
2019	19.7	6.0	30	2.1

Source: Compiled from the Data Obtained from the Government of India (2021), “Women and Men: A Statistical Compilation of Gender Related Indicators in India.

Table No. 4 shows that the birth rate and death rate is declining from 2009 to 2019. The infant mortality rate and the total fertility rate are also declining during the same period. The declining infant mortality rate will improve the child survival rate and the result of this survival will have a significant impact on the larger number of people in the young generation. The same trends can also apply to the declining trends of birth and death rates. Due to the declining birth and death rate the working-age population is rising in the economy.

Level of Education: Education plays a vital role in the overall economic growth and development of the country. An educated and healthy labour force is an asset for any country. This section discusses the demographic dividend and level of education in India.

Table 5 Status of Education Level in India

Years	1951	1961	1971	1981	1991	2001	2011
Level of Education	18.33	28.3	34.45	43.57	52.21	64.83	74.04

Source: Census 2011, Provisional Population Table

Table No. 5 shows the details of education levels in India since 1951. According to the provisional population table 2011, the literacy level has increased up to 74.04 per cent as compared to 18.33 per cent in 1951. The growing trend of education in India

is increasing which shows that the economy has the potential to grow in faster ways.

Labour Force Participation Rate: The term labour force refers to the population which supplies for pursuing economic activities to produce goods and services. The Labour participation rate (LFPR) is defined as the proportion of persons/person-days in the labour force to the total persons/person-days. These ratios are given in per 1000 persons/person-days. (68th NSSO). The detail of the Labour Force Participation Rate in rural and urban areas from 2004-05 to 2019-20 is given below.

Table 6 Labour Force Participation Rate (%) (Usual Status, ps+ss)

Years	Rural	Urban	Total
2004-05	60.2	46.6	56.5
2009-10	49.6	40.1	46.8
2011-12	46.4	40.5	44.6
2017-18	38.1	38.5	38.2
2018-19	37.8	38.7	38.1
2019-20	41.3	40	40.9

Source: Compiled from the Data Obtained from the Government of India (2021), "Women and Men: A Statistical compilation of gender Related Indicators in India.

Table No.6 indicates the Labour Force Participation Rate in rural and urban areas of all the age groups in India between 2004-05 and 2019-2020. It has been observed that the Labour Force Participation Rate was up to 56.5 per cent in 2004-05 and after that, the LFPR gradually declined up to 2018-19 and after that, it increased in 2019-20. The higher labour force participation rate indicates that a large pool of labour is available in the country and now it's the responsibility of the authority to manage this labour force to achieve higher growth in the country.

Status of Employment: The status of employment and unemployment of the overall population and labour force is significant. The employed person is divided into three categories according to their status of employment. These categories are first is self-employed, second is regular wage/salaried employees and third is casual labour. The distribution of all age group workers is discussed based on usual status (ps+ss). Unemployment is defined as the number of unemployed to the number of the labour force. The status of employment and unemployment based on rural and urban areas is discussed below: (68th NSSO)

Table 7 Status of Employment Rate According to Usual Status (ps+ss)

Years	Rural	Urban	Total
2004-2005	43.9	36.5	42.0
2009-2010	40.8	35.0	39.2
2011-2012	39.9	35.5	38.6
2017-2018	35.0	33.9	34.7
2018-2019	35.8	34.1	35.3
2019-2020	39.2	35.9	38.2

Source: NSSO Report, 2009-10 and 2011-12

Table No. 7 explains the percentage distribution of people employed by usual status (ps+ss) for each age group at all India levels. The level of employment is divided into rural and urban plus overall employment in India. The survey conducted by the NSSO on various rounds found that employment opportunities

have declining after 2004.05. during 2004.05, the employment status was 42 per cent which has declined up to 34.7 per cent in 2017-18. During 2018-19 and 2019-20, the employment trends picked up the speed to generate the level of employment in the economy. The table indicates that the people in rural areas are more employed than in urban areas. The government of India has initiated various measures to promote employment in the economy. These measures are encouraging private investment in the various sectors of the economy, fast-tracking approval for various projects and increasing public investment in schemes like the Mahatma Gandhi National Rural Employment Guarantee Scheme, Swarna Jayanti Shahari Rozgar Yojana, Prime Minister's Employment Generation Programme, Swarna Jayanti Gram Swarozgar Yojana, now restructured as National Rural Livelihood Mission. To increase the level of employability, the government of India has also initiated a skill development program which coordinates through various central government ministries to create employment in the economy. (68th Round of NSSO).

Table 8 Unemployment Rates in the Labour Force According to Usual Status

Round	Year	Rural		Urban	
		Male	Female	Male	Female
61 st	2004-05	1.6	1.8	3.8	6.9
66 th	2009-10	1.6	1.6	2.8	5.7
68 th	2011-12	1.7	1.7	3.0	5.2
PLFS	2017-18	5.8	3.8	7.1	10.8
PLFS	2018-19	5.6	3.5	7.1	9.9
PLFS	2019-20	4.5	2.6	6.4	8.9

Source: NSS 68th Round, July 2011 - June 2012 and Periodic Labour Force Survey (PLFS, 2017-18, 2018-19 and 2019-20), National Statistical Office, Ministry of Statistics and Programme Implementation

Table No. 8 explain the unemployment status among male and females in the rural and urban areas. As per the Table, during the 61st round of the NSSO survey in the year 2004-05 the unemployment in rural areas was less compared to urban areas. The unemployment among males in rural areas was around 1.6 per cent and in urban areas, 3.8 per cent and female unemployment in rural areas was 1.8 per cent and 6.9 per cent in urban areas. At the end of the fiscal year 2019-20, the unemployment among the rural and urban males and females increased but the rural male unemployment was more as compared to rural females. At the same time, urban male unemployment was less compared to urban female. The table indicates that unemployment is one of the major issues for the Indian economy which needs to be effectively managed by the government.

Status of Employability of Indian Youth: Due to the steps taken by the government of India, employability among the labour force in India has increased. This section explores the proportion of India's Skilled employability situation from 2014 to 2022. The details of the employability of Indian youth are given below:

Table No. 9 shows the employability status of Indian youth. According to India Skills Report 2022, the employability rate among the Indian youth has increased to 46.2 per cent in 2022 as compared to only 33.95 per cent in 2016. The employability among the Indian youth indicates that more and more Indian youth are now able to get a good job in the labour market. Their employability in the labour market is increasing year

Table 9 Status of Employability of Indian Youth (%)

Years	2014	2015	2016	2017	2018	2019	2020	2021	2022
Employability	33.95	37.22	38.12	40.44	45.6	47.38	46.21	45.9	46.2

Source: India Skills Report 2018 and 2022

after year. As per the India Skilled Report 2022, employability among engineering and management is more followed by information and software skills. The report also found that the higher number of employable talents is coming from Maharashtra, Utter Pradesh, and Kerala.

Status of Skilled Population: This section is explaining the details of the skilled labour force in India and the world as a percentage of the total labour force. The details of the skilled labour force are given below:

Table No. 10: Status of Skilled Population in Selected Country (% Total Labour Force)

Sr. NO.	Country	Skilled Labour Force
1	Japan	99.9
2	USA	96.5
3	Canada	92.0
4	France	85.5
5	United Kingdom	84.4
6	Mauritius	61.7
7	UAE	52.4
8	Indonesia	42.0
9	Bangladesh	25.5
10	India	21.2

Source: UNDP Human Development Report 2020

Table No. 10 shows the skilled labour force as a per cent of total labour force participation in India. As per the UNDP Human Development Report 2020, India is coming under the medium developing country with a rank of HDI is 131. Out of total labour force participation, India's skilled labour force is only 21.2 per cent which is much less compared to developed nations like Japan, the USA, and Canada. In these nations, the skilled labour force is more than 90 per cent which is extremely high compared to India. The report says that the skilled labour force in India is very low. To increase the skilled labour force in India, the government should utilize their basic strength such as education, information technology, Digital technology etc.

CHALLENGES OF DEMOGRAPHIC DIVIDEND AND ECONOMIC GROWTH:

There are many challenges facing the Indian Economy in front of demographic transition. These challenges are lack of education, educated unemployment, the disparity in the form of LFPR between males and females, urban and poor, employability of labour, adult education, unemployment among the males and females, lack of proper family planning program, lack of skilled labour and professional institution is not available in the country as compared to the other developed country in the world. One more challenge to the demographic structure of the Indian economy is the ageing of the population. After a few decades, the present working age of the population becomes aged, and no labour force is available for work. So, it is the responsibility of the government of India to respond appropriately in this regard too.

SUGGESTIVE MEASURES

To increase the association between demographic dividend and economic growth, various kinds of investment and policy measures are required. The sector is required for investment in education, health, and training programs. It has been proved that the proper investment in education, health and training programs can accelerate the condition of demographic dividend windows of opportunities. India is having the opportunity to harness the benefits of the demographic dividend. To achieve the benefits of demographic dividends, appropriate policy measures need to be initiated by the government. If appropriate policy measures are not initiated and implemented by the government then actual benefits of the demographic dividend are not possible to derive.

GOVERNMENTAL MEASURE TO INCREASE DEMOGRAPHIC DIVIDEND:

There are various measures initiated by the government of India to improve education and health in the country. Health and education are the root cause of increasing the demographic dividend in the economy. If education and health are improved, it will boost flows of skilled and healthy labour to various sectors of the economy. It will increase the employability of the economy. To increase the level of employability of the labour force, an industry orientated educational system is needed and to promote market-oriented education, investment in education is highly required. To improve the education, health and employability of the labour force, the government of India has initiated various skill development programs such as Skill India Mission, Digital India Mission, Make in India etc.

CONCLUDING OBSERVATION

Let me conclude the paper by saying that India is facing one of the major problems in the context of demographic dividend in a situation of education and health. The level of education and health in India is not up to the mark as compared to a developed nation. The lack of education and healthcare facilities is adversely affecting the growth of labour and the quality of labour in the economy. The demographic dividend is based on the quality of education and the quality of labour supply in the economy. In any country where the quality of education and labour supply is good, that nation boosts its economic growth and development. Overall, the demographic dividend can be a significant driver of economic growth, but it is important for countries to invest in their human capital and create the right policy environment to fully realize its benefits. According to the Report Published by the CII, the demographic dividend of India becomes a liability if the country is not able to produce the required number of jobs and the required workforce by the year 2050.

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How to cite this article: Mahendra R. Mishra, 2023 Does Demographic Dividend Lead To Economic Growth in India?. *Int J Recent Sci Res*. 14(10), pp. 4260-4265.
