Impact of Urbanisation on Economic Growth of Selective States of India

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Abstract:
Very recently it has been identified that population is one of the major determinants of economic growth of a nation. In recent years, the study of urbanisation has gained a matter of concern in developing countries as it has been recognized as part of a larger process of economic development which is affecting developing countries like India. In recent decades, urbanisation in India is increasing rapidly. In this perspective, a present paper using census data describes the impact of urbanisation on economic growth of selective states of India. The empirical study between states results that the states having larger amount of urban population have higher economic growth than the states having lower urban population. The correlation and simple linear regression shows the positive relation between the urban population and gross state domestic product. Most importantly here we can see that the states having more industries are also having more population in urban areas and that states are having higher gross state domestic product too. Finally, the paper suggests several points to improve unequal growth among states.

Index Terms - Urbanisation, Economic Growth, Gross State Domestic Product (GSDP), inequality, India.

Introduction:

With about 1.21 billion in population in 2011, India was one of the second largest countries after China in terms of size of population. Although the present share of the urban population in India is relatively small, namely about 31.2%, but it is quite large in absolute number, namely, about 377 million. First, let's understand the urban area and urban population according to the Indian census.
For the Census of India 2011, the definition of urban area is as follows;

1. All places with a municipality, corporation, cantonment board or notified town area committee, etc.
2. All other places which satisfied the following criteria:

i) A minimum population of 5,000;
ii) At least 75 percent of the male main working population engaged in non-agricultural pursuits; and
iii) A density of population of at least 400 persons per sq. km.
The first category of urban units is known as Statutory Towns. These towns are notified under law by the concerned State/UT Government and have local bodies like municipal corporations, municipalities, municipal committees, etc., irrespective of their demographic characteristics as reckoned on 31st December 2009. Examples: Vadodara (M Corp.), Shimla (M Corp.) etc.

Urban Agglomeration (UA): An urban agglomeration is a continuous urban spread constituting a town and its adjoining outgrowths (OGs), or two or more physically contiguous towns together with or without outgrowths of such towns. An Urban Agglomeration must consist of at least a statutory town and its total population (i.e. all the constituents put together) should not be less than 20,000 as per the 2001 Census. In varying local conditions, there were similar other combinations which have been treated as urban agglomerations satisfying the basic condition of contiguity. Examples: Greater Mumbai UA, Delhi UA, etc.

Industrialization has historically led to urbanisation by creating economic growth and job opportunities that draw people to cities. Urbanisation typically begins when a factory or multiple factories are established within a region, thus creating a high demand for factory labour. Other businesses such as building manufacturers, retailers, and service providers then follow the factories to meet the product demands of the workers. This creates even more jobs and demands for housing, thus establishing an urban area.

In the modern era, manufacturing facilities like factories are often replaced by technology-industry hubs. These technological hubs draw workers from other areas in the same way factories used to, contributing to urbanisation.

The Industrial Revolution, the trend of urbanisation along waterways has continued because large bodies of water are needed to sustain the industry. Not only do many businesses require large quantities of water to manufacture products, but they also depend on oceans and rivers for the transportation of goods. This is partially why 75% of the world’s largest urban areas are in coastal regions.

As industrialization creates economic growth, the demand for improved education and public works agencies that are characteristic of urban areas increases. This demand occurs because businesses looking for new technology to increase productivity require an educated workforce, and pleasant living conditions attract skilled workers to the area.

Once an area is industrialised, the process of urbanisation continues for a much longer period of time as the area goes through several phases of economic and social reform. This concept is best illustrated by comparing a city such as Bangkok, located in a lesser-developed country, with an American city such as Los Angeles and a European city such as Berlin. Each city has a progressively higher level of social, environmental and economic prosperity achieved through increased education, government intervention, and social reform.

There are several factors at play that have led to the urbanisation in India – population growth and migration as one of the 2 major factors. Recently, a third factor has been seen as a huge contributor to the urbanisation growth: the expansion of towns and cities. This factor is due to the high economic growth that the city has witnessed over the years. Because of this, the government in India has decided to grab the opportunity: projects to further thrust the country into urbanisation, a number of smart cities to be put up in various locations, and other initiatives. This rapid growth has both positive and negative effects on the economy of India. As we have seen that there are plenty of fascinating factors for urbanisation but as we all know India is an agricultural country and we should keep that in our mind while developing the country.

Currently, there are nine major cities in India: New Delhi, Mumbai, Bangalore, Hyderabad, Ahmedabad, Chennai, Kolkata, Surat and Pune. Urbanisation begins in these massive cities as each one is teeming with varied businesses, advancement and spatial complications.
Literature Review:

Urbanisation and economic growth reduces poverty and overall population growth in the economy. Industrialisation increased urbanisation and this inversely affects rural poverty through the migration process. (Gollagari, 1999)

Relationship between urban population and economic development is there upto certain level only after that point it becomes independent. (Bertinelli and stroble, 2007)

Urbanisation and economic growth rate are negatively correlated. The growth rate of urbanisation is much faster than the growth rate of economic development. (Cali, 2008)

Urbanisation is essential for socio economic growth transformation, wealth generation, prosperity and development. No country has grown to middle income without industrializing & urbanizing. None. has grown to high income without vibrant cities The rush to cities in developing countries seems chaotic, but necessary. About 65% of GDP accrue from urban areas that comprise of third of one India's total population. (Dash, Outta & Shylajan, 2017)

Urbanisation (or the largest city’s population) increases the urban–rural inequalities. However, at higher levels, urbanisation can be expected to reduce urban–rural inequalities. This is what we expect since urbanisation does not just increase incomes of the urban residents, but the rural population also shares the growth, due to the equilibrating labour flows and subsequent equalisation of incomes. (Sridhar, 2016)

Objectives:

1. To measure the impact of urbanisation on economic growth of a state.
2. To examine the relationship of urban population with economic growth.

Hypothesis:

A. $H_0$: There is no relationship between urban population and GSDP $\text{v/s} \quad H_1$: There is a relationship between urban population and GSDP

B. $H_0$: There is no impact of urban population on GSDP $\text{v/s} \quad H_1$: There is impact of urban population on GSDP

Research Methodology:

For this study, quantitative data has been used. The secondary data has been collected from the sources of Census 2001 and 2011. The research design used for this analysis is descriptive. For quantitative data, the statistical analysis method is used to test the relationship between macroeconomic variables. The sample size is of 12 states that have the top most and bottom most states of India on the basis of urban population. The Correlation and Regression are being used to find out the relation and impact between the dependent variable with respect to independent variable. The analysis is done for the year of 2011 by considering the base year 2001.
Data Analysis:

The urban population of India is increasing rapidly. From the census of 2001 and 2011 we can clearly see the drastic increase in urban population while on the other hand the rural population is declining day by day. This rapid growth of urban population has a major impact on the economic growth of a state of a particular country.

<table>
<thead>
<tr>
<th>Table 1. Decadal information about population</th>
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Table 1 shows the decadal growth rate of population over a period of time in India. From table 1 it can be clearly seen that in 2001 only 27.7 percent of the total population lived in urban areas and 72.2 percent of the population lived in rural areas. After a decade in 2011 the urban population increased upto 31.4 percent on the other hand rural population decreased up to 68.86 percent.

Economic growth of a country majorly depends on the population of that county. Urban and rural population both participate in economic growth of the country. Here, researchers want to find the relationship of the urban population with economic growth in a particular year with the help of selective states.

<table>
<thead>
<tr>
<th>Table 2. Urban Population and GSDP of Top 6 and bottom 6 states, 2011</th>
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<table>
<thead>
<tr>
<th>Name of States</th>
<th>Urban Population (in thousand)</th>
<th>GSDP (in Cr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maharashtra</td>
<td>50818</td>
<td>11237433</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>44495</td>
<td>199812341</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>34917</td>
<td>72147030</td>
</tr>
<tr>
<td>West Bengal</td>
<td>29093</td>
<td>91276115</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>28219</td>
<td>84580777</td>
</tr>
<tr>
<td>Gujarat</td>
<td>25745</td>
<td>60439692</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>689</td>
<td>6864602</td>
</tr>
</tbody>
</table>
Table 2 represents the states that have been selected by researchers for the analysis. The sample size is 12 in which 6 top most states have been selected which have the highest urban population and bottom 6 have lowest urban population in the country.

**Correlation**
To examine the relationship between urban population and economic growth researcher has taken GSDP as a dependent variable and Urban population as independent variable.

**Table 3. Showing correlation between variables**

<table>
<thead>
<tr>
<th>Urban Population</th>
<th>GSDP (in Cr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.686189628</td>
</tr>
<tr>
<td>GSDP (in Cr.)</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 3 shows the partial positive relationship between Urban population and GSDP, which shows that the growth of both the variables are in the same direction i.e as urban population increases the GSDP will increase simultaneously. From this our first hypothesis has been tested and the result shows that there is a relation between two variables so the null hypothesis is rejected and the alternative hypothesis is supported. The correlation between variables is 0.686189628 while the coefficient of determinant i.e \( r^2 \) is 0.470856206.

**Regression**
To test our second hypothesis which examines the impact of urban population on GSDP we have done a regression statistic, where urban population is independent variable and GSDP is dependent variable. Table 4 shows the regression statistics of the top 6 and bottom 6 states which are categories on the basis of urban population of that state.

**Table 4. Regression Statistic**

<table>
<thead>
<tr>
<th></th>
<th>coefficients</th>
<th>Standard Error</th>
<th>t-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>6041805.529</td>
<td>18595365.131</td>
<td>0.32490921725</td>
<td>0.7519449250</td>
</tr>
<tr>
<td>Urban Population</td>
<td>2136.5646</td>
<td>716.240</td>
<td>2.98302776846</td>
<td>0.0137364001</td>
</tr>
</tbody>
</table>
Table 4 represents regression statistics. Coefficient of urban population is 2136.5646 while the p-value is 0.0137364001 which is less than 0.05 so here our null hypothesis is being rejected and an alternative hypothesis is accepted which says that there is an impact of urban population on economic growth.

Findings:

1. From table 3 our first hypothesis is being tested and it supports the alternative hypothesis. We get the partial positive relationship between urban population which means the increase in urban population leads to growth in GSDP by 47% while 53% of growth in GSDP is due to unexplained variables.

2. Table 4 examines our second assumption by regression statistics which supports alternative hypotheses because the p-value is 0.0137364001 which is less than 0.05.

3. The coefficient of urban population is 2136.5646 which means if 1% of change occurs in urban population then GSDP will also change by 2136.5646.

Conclusion:

The relationship between urbanisation and development is a vital policy concern, especially in developing countries. This study reviews the arguments and evidence for whether rapid urban population growth can help in economic growth. The main finding is that the development effects of urbanisation and the magnitude of agglomeration economies are very variable. There is no simple linear relationship between urbanisation and economic growth, or between city size and productivity. The potential of urbanisation to promote growth is likely to depend on how conducive the infrastructure and institutional settings are. As we have taken the top most urban populated states and the states which have least urban population in India, from that we can conclude that the top states are having more industrialisation, long coastline etc while on the other hand states with low urban population are more engaged in agricultural activity. And we know that the agricultural land is limited so people of rural areas migrate to the urban area to get better employment opportunities and better standard of living. That's why we can clearly see a drastic increase in urban population and rapid decline in rural population. From the study we can conclude that higher urban population means higher GSDP and lower urban population means lower GSDP because the economic structure is very different within these states as we discussed earlier. However, urban and rural both are very important in the Indian economy and for development purposes we can consider both in concern because India is an agricultural country and almost 55% of total population get employment through it in which most of them live in rural areas. Rural areas should be developed by the government on the basis of their growth factors.

Limitations:

1. Available data has been utilised for the study that is of 2011 so the study examines the past. So there is a gap of more than 1 decade from the recent timeline.
2. The paper only analyses the impact on GSDP and on per capita income and other factors of economic growth.
3. For this study researchers have taken selective states and not a whole country.
4. Economic growth solely does not depend on urban population; there are many other factors enganged in growth of economy.

Suggestions:

Urbanisation plays a vital role in economic growth and for our study we have taken most urban populated state and least urban populated state and we had found the positive relation between GSDP and urban population but as we know India is agricultural country and in Indian most of urbanisation is nearby or in industrial towns so the government should focus to develop the state which have low urban population on the
basis of other factors that can enhance the growth of that states like more investment in agricultural, canals, rural education, small and medium industries etc. Economic growth does not merely depend upon urbanisation. People need to have adequate access to water, energy, land, health services, education, transport services and markets. A lack of access limits the opportunity that people have to improve and sustain their social and economic well being. Education, entrepreneurship, physical infrastructure, and social infrastructure all play an important role in developing rural regions. Rural development is also characterised by its emphasis on locally produced economic development strategies. The "areas of opportunity" - tourism, forestry, renewable energy and local foods - are sectors well positioned to boost local economic opportunities in rural areas. Forestry policy is considered to be an integral part of rural development

References:


