

# Impact of Urbanization on Economic Growth of Developing Countries

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## Abstract

*Sustainable and equitable welfare through urbanization of society to achieve human centric economic progress is inevitable in developing countries around the world. This research paper addresses issue of urbanization on developing countries growth and prosperity. There are certain factors that affect the economic growth of a country or a region. This research is an effort to understand the impact of the people shifting from the rural areas to the urban center of the developing countries and its effect on the economic growth of that country. This phenomenon is a common throughout the world especially in countries where the economies are in developing stages. More and more people are shifting to the urban centers which results in increase in economic activities of the country as well as creating issues of management and governance. Various factors are used in this study to cover economic growth of the developing countries like income per capita, investment share of GDP, government consumption share of GDP, average fertility rates. Data of these variables are taken from 1991 to 2017 from World Bank for 150 countries. In this research we use panel regression.*

**Keywords:** Urbanization, economic growth, developing countries

## Introduction

Developing countries often depend upon their big cities for the revenue generation. In developing countries it is a very common phenomenon that people from the rural areas shift towards the urban areas to search for work. This results in concentration of population of urban areas. People shift towards cities in order to improve their living standards and avail all the latest technologies that mostly present in cities only. The main objective of this study is to find out the impact of the increasing urban population on the economic conditions of the different developing countries of the world. We have to understand that when population shift from rural to urban areas, developing countries are taking its advantage to improve their economic growth. Most of the recent and the fruitful studies on this topic has been done by J Vernon Henderson (2000). He has done number of studies by connecting the phenomena of urbanization with

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economic growth of different parts of the world. He has taken different variables in his studies in order to understand the impact of urbanization on economic growth. Basically almost all economically developed countries in the world have a large concentration of their population in the urban centers or the metropolitan cities of countries, and these metropolitan cities play the most important role in the sustaining and strengthening the economic progress of these developed countries. Advantage of education, technology, health facility and various other factors are dominant factors in this regard. People living in the rural setting have lack of basic facilities, consequently mobility towards urban areas are on higher side. These cities and their industrial and service sector demand labor force that could be met at cheaper rate by the mobility of people from rural areas. This labor may be in unskilled or semi-skilled form. Government also gives better attention towards these urban hubs because they are having most of their income in the form of taxes from these areas. That is why these cities are equipped with better health and education centers since there is a large business size together with huge markets to cater; which results in employment and overall economic betterment of the society (Zezza & Tasciotti, 2010; Sadorsky, 2013).

This study is an effort to understand the effect of urbanization on the economic growth of the developing countries. Where urbanization is the process of shifting of population from rural areas towards the urban centers which is a common phenomenon especially in the developing countries, and what would be its impact on the economy of that developing country and various other issues that arises simultaneously.

The background is common observation that in developing countries people shifting towards the urban centers from the rural regions. It happens due to the understanding of the people that there are not enough resources or facilities in the rural areas to prosper or they thought that there is better chance for them in the cities to have a more prosperous and successful life and make a better living for themselves. Now due to these reasons the urban population of the different countries in the world started increasing day by day, and this process had a direct effect on the economic development of these countries. This study is very significant because it helps us to understand impact of this mobility on different developing countries.

The study addresses different parts the problem that is identified, more specifically is to understand the impact of urbanization on the economic growth of developing countries. The literature review shows the different studies that have been done in past to understand the increase in urban population and its effects on the economic growth of different countries around the world (Hossain, 2011; Sadorsky, 2013; Bai, Chen, & Shi, 2011; Bairoch, 2013).

Our contribution in existing literature is that we are not only considering mobility of rural population on economic growth, we are simultaneously taking fertility rate, government consumption and investment share of GDP. The rationale behind this approach is that not only city facilities and source of revenue generation attract people towards cities but it is also important that how government play their role to sustain this mobility. As discussed that in rural setting basic human facilities are lacking that compels people to move toward large cities that may impact on average fertility rate, consequently overall growth in population as well. Our study is considering all factors taken by earlier researchers as well as additional variables also considered like fertility rate. Data has been taken from World Bank data source.

This research paper is organized as follows. Chapter 1 gives brief overview about the study. In chapter 2 literature have been reviewed which provides theoretical advancement and empirical evidences. Chapter 3 developed model and empirical results and chapter 4 provides conclusion and suggestions of the study.

### **Literature Review**

There are certain factors that affect the economic growth of a country or a region, these factors maybe natural or according to the culture or tradition of that particular part of the world as well as technological development and innovation. Developing countries are those which have a developing economy and they are striving towards a stable and developed economy (Mutlu, 1989; Chen, Zhang, Liu, & Zhang, 2014). In these parts of the world phenomena is that people are moving from the rural areas where there are less means of income and a backward technology towards the urban centers in search of better means of living and advancement because in these urban areas they have a better reach to the new technologies and due to advancement in these technologies there is a scope for the people to progress and built better future for themselves and their family. This whole exercise constitutes metropolitan cities which often become the big source of revenue generation for these particular countries and due to all this revenue generation process the economies of these developing countries undergo changes with more human resource in the areas (Moomaw, RL & AM. Shatter 1993).

There is a huge improvement in the production services when there are mega cities in a country and a good chunk of the population lives there. This information spreads more quickly in the close areas where people facing problem to meet basic human needs (Vernon Henderson, 1988). More urban areas will have good chance that the economy is documented well and there is a good amount of data to compare from earlier setting. There is a lot of saving in the economy as well such as the

cost of transportation which the people have to spend in order to get to place if they are not living in an urban concentrated area (Krugman & Venables, 1999; Lakshmanan, 2011).

Urban concentrated areas are the places where a lot of industries located (Rogers & Williamson, 1965) which are the backbone of an economy in the era of the early stages when the economy began to develop the concentration of the population in the urban areas of the country was viewed as one of the most important aspect (Henderson , 2003).

Due to the early shifting of the population towards the cities and then after a long time some percentage of the population moved back to the rural areas helped a great deal to spread benefits of urban areas to rural areas in terms of health, education, civic facilities. This was a healthy sign (Whaeton & Shishido, 1981). There are studies which shows that concentration of population in one part of the country is also not good for the economic development of that country because of the extra expenditure that economy has to bear because of so many people living in an area the natural recourses consumption takes place quicker than cost of living also increase.

There are some empirical work that shows that in large cities the benefit that you get are lot lesser than the amount that you have to pay for it especially in the developing countries (Richardson, 1987). There are views that the urban countries especially the urban city areas of the developing countries are the places where industrialization took place and there is a relationship between the urban areas and the industries which is beneficial for the economic growth of these countries but when we are talking about especially the mega cities of developing countries. These cities are often the cities which are founded by the people coming from the different parts of the country and met many local people are those. These people are encouraged to come here in order to earn better living due to earn better living due to presence of sea harbor or a transit route in inter regional trade. And often the process of the urbanization in these cities is so rapid that there are problem to be faced in order to get some necessities of life. Especially the mega cities of the south Asia are experiences thus bet (Hoselitz, 1951; Echenique, Hargreaves, Mitchell, & Namdeo, 2012).

Human capital is one of the most important thing that could facilitate the economic growth. Due to the concentration of population in the urban areas there is a good chance that dynamic people show their skills and make an impactful contribution to the society which will result in the betterment of the whole country, region or even the world (Luisi Bertinelli, Duncan, Black, 2004). Due to the better market structure and good utilization of the individuals such as labor or other worker than the rural labor or workers and economies of scale the urban areas population

is attached to the enhancing level of income in the country (David. E. Bloom, David Canning, Gunther Fink, 2008).

During the last fifty years there is a huge increase in the urban population of the developing countries. Before these fifty years there was almost no growth in the urban population of these countries, people shifting from the rural areas to the urban areas the numbers of the mega cities in the developing countries have increased rapidly in the last twenty to thirty years. With the emergence of these new big cities there is a good increase in the economic activities as most of these places are the hub of trade whether it is regional or global (Hisit Bertinelli & Eric Stroble, 2007; Echenique, Hargreaves, Mitchell, & Namdeo, 2012).

Within the next decade over half of the world population will be living in urban areas of developing countries and the population of the urban areas will increase due to employment opportunities and other such attraction there would be an effect on the economic condition of these thousands of people and in correlation with that there would be an impact on the overall economic stability and growth of the economies of these developing countries (Gravin W. Jones, 1997; Alonso, 2017). There is increase in the general equilibrium due to the people who are discovering new ways of development of their own self as well as contributing to the goodness and the wellbeing of the society.

There is a question that is also rising with the increase in the mega cities of the world and developing countries that what are the limits of these cities and how many more people can still come and live in these already concentrated cities and what is the impact of the each new person coming here has on the resource of these cities, the (UN, 1993) also emphasize on the development of new centers apart from the existing big cities. It is recommended with the observation that they do not become too much populated to carry on their weights and crumble with the burden of so many people using their resource day in and out. The fact is that unbalanced distribution of the resource, the crime rate and social inequality is going up in these mega cities which is of course a matter of concern for the future economic development for these cities and in particular for the developing countries (Echenique, Hargreaves, Mitchell, & Namdeo, 2012).

Economic growth of a country may result from different factors which could be the global conditions with relevant to the economies of the different parts of the world. The developing countries are the one which are affected the most by the economic alterations. In developing countries there are less means of earning a living than the developed countries or the countries with booming economies (World Bank, 1987). The government is also not in a condition to help out the suffering to the people who are not earning a handsome amount due to lack of proper planning and poor

governance. Especially in the rural areas of the country where there are even shortage of the basic necessities of life. People are mostly living hand to mouth as there is not much opportunities for them to grow economically. There is less facilities like school and colleges which result in the low literacy rate in these regions of the developing countries and due to this fact there is a backwardness in the thinking and attitude of the people which also does not let them prosper in a rightful direction and this situation overall effect the whole society and the country (North, Wallis, Webb, & Weingast, 2013). People do not have facilities which effect the earning of a person in these rural areas. That is why people move towards the big cities in search of these facilities, which can help them grow and earn a good living for their households. The facilities like transportation is far better in the urban areas and big cities which enhance the reach ability of the people from one place to other and this process really encourages the economic activities in the city as people do trade in different parts of the country and also across the international boarder (Tolley, Gardner & Graves 1979).

There is certain feeling about the resource that are available in the rural areas of the developing countries and that the resources which are available in the rural areas of the countries are not fully utilized because there is a shortage of relevant technology in these areas. Technologies which help to get more and more out of the natural resources but people in the urban centers are the one who have a direct access to all these technologies and they can use these rural areas for their convenience. People living in the developing countries often do not realize that there is an abundance of the natural resource in their country. They are unaware of the processes which can help them get profits out of these available natural resource (Kuncoro, 1996).

In the early period of 19th century and before that most of the people of the world lived in the rural areas as the economy of the different countries of the world were not so much developed and there was a certain domestic lack of economies in the countries, and people use to have limited technologies and vision as they wanted to just earn two times of bread for them and their families. There were not many industries and the most of the people use to grow the things that were the necessities for them but after the process of the industrialization started, people started moving towards these industrial zones (Bai X, Chen J & Shi, 2011). These industrial areas had better technologies and they were able to get much handsome wages which they can use different activities after their consumption. This created new horizons and new market and products that were not present. As this process carried on for decades that economics in the different countries and parts of the world became much more documented as analyze able. Which helped these countries to develop

their economics in an organized and more planned way and there is a global structure to the economies of the countries were linked with each other. In the developing countries the economies are still in this stage human resource are moving more and more towards the urban centers which are contributing steadily in the economies of these countries. With the better usage of the resources these people are contributing to the successful and higher economic activities which is good and encourage sign for the time to come for their developing countries. (Ades & Glaeser 1995).

There is better access to the newest and the most important information in the cities because there are lot of developed mediums through which information travels and valuable for the people living in the areas. Information technology support can be very helpful in opening the new horizons of prosperity and development for the country's metropolitan cities. This is one of the main reason behind the success of developed economies. As the government get most of it taxes from the people living in these cities due to higher earning they are able to pay higher taxes which in turns help government to provide better facilities in urban areas. On the other hand rural areas are mostly based on farming areas and cultivation and in most of the developing work these source of income give very less tax to government. It causes problem for the government from expenditure and development side. There is no doubt urban centers are the one which provides most facilities for the people with potential to come and use these facilities to improve the economic condition for themselves as well as be a part in the economic progress and prosperity of the country as a whole (Davis & Henderson, 2003; Bettencourt, L., & West, G. (2010).

Hence based on past empirical research we hypothesize that urbanization has a positive impact on economic growth of developing countries

### **Research Methods**

Data has been collected from World Bank data bank. All the variables selected for this study are available in World Bank data bank. The data is collected for all the developing countries based on developing country definition set by World Bank. Under this category data is separately available. We have not focused on any particular part of the world regarding our research as we have focused on the developing countries all over the world. The unrestricted non-probability random sampling technique was used. The data of these different developing countries was picked up from the World Bank website.

A sample of 150 countries on a period of 27 years from 1991 – 2017 has been used in this study. Before 1991 some countries data were

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present and some were missing. It is also observed during collection of data that some variables for few countries were available and some missing. After completion of data file 150 countries were present with all the variables decided to take in this study. Before this there is data available of some countries but in the case of most of the countries there are too many missing value as we could not find any reliable source that could provide the data of these countries before 1991. The data was well documented after the year 1991 and presented according to the requirements of our study.

Panel regression has been applied to find out the impact of urbanization on the economic growth of the developing countries as applied by Luisito Bertinelli and Eric Strobl (2003) and Henderson (2003). Based on the variables, described above, one variable for urbanization and four variables are representing the economic growth.

*H1: Urbanization has a positive impact on economic growth of developing countries*

Independent variable: Percentage growth in urban population

Dependent variable: Income per capita; Investment share of GDP; Government consumption share of GDP; Average fertility rates

First we decided to take fertility rate as dependent variable and growth in urban population as independent variable.

Table 3.1

Dependent Variable: FERTILITY_RATE				
Total panel (unbalanced) observations: 4571				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
URBAN_POPULATION	-0.043159	0.000853	-50.57510	0.0000
C	5.541778	0.049128	112.8022	0.0000
R-squared	0.358903	Mean dependent var		3.267599
Adjusted R-squared	0.358762	S.D. dependent var		1.670802
S.E. of regression	1.337934	Akaike info criterion		3.420567
Sum squared resid	8178.813	Schwarz criterion		3.423379
Log likelihood	-7815.706	Hannan-Quinn		3.421557
		critier.		
F-statistic	2557.841	Durbin-Watson stat		0.003075
Prob(F-statistic)	0.000000			

The overall panel regression model was significant. The F-static is also significant i.e. estimated part of the regression is significantly higher than that of the error part of the regression. There is a significant positive impact of urbanization on fertility rates in the developing countries. Result is as per Authors' understanding that when people move in urban setting, it increases their income and basic support level and consequently impact

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on the fertility rate. Though r square is 35% but in social sciences data is not without error when we collect it from number of various countries.

In table 3.2 Selected government consumption as dependent variable

Dep. Variable: Govt. Consumption				
Total panel (unbalanced) observations: 4233				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
URBAN_POPULATION	0.033332	0.005293	6.297065	0.0000
C	14.30595	0.307499	46.52352	0.0000
R-squared	0.09285	Mean dependent var		16.08585
Adjusted R-squared	0.09051	S.D. dependent var		7.913872
S.E. of regression	7.877977	Akaike info criterion		6.966492
Sum squared resid	262586.5	Schwarz criterion		6.969492
Log likelihood	-14742.58	Hannan-Quinn criter.		6.967552
F-statistic	39.65303	Durbin-Watson stat		0.092581
Prob(F-statistic)	0.000000			

In table 3.2 the  $r^2$  is less than 60% which shows that the data fits on average into the equation. There is a positive impact of urbanization on government consumption share of GDP. F statistic is significant indicating that model is best fit for research purpose. Urban population has positive impact on government consumption share in GDP. It is understandable that government putting more efforts in terms of utilization of its resources in urban areas that will give sustainable growth and prosperity in the economy. Though this variable is statistically significant but various other factors may also be considered to develop overall understanding of this phenomena.

Table 3.3

Dependent Variable: GNI_PER_CAPITA_GROWTH				
Total panel (unbalanced) observations: 3261				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
URBAN_POPULATION	-0.015421	0.005757	-2.678709	0.0074
C	3.348255	0.334860	9.998957	0.0000
R-squared	0.02197	Mean dependent var		2.520991
Adjusted R-squared	0.01891	S.D. dependent var		7.398957
S.E. of regression	7.391959	Akaike info criterion		6.839276
Sum squared resid	178075.2	Schwarz criterion		6.843011
Log likelihood	-11149.44	Hannan-Quinn criter.		6.840614
F-statistic	7.175484	Durbin-Watson stat		1.775209
Prob(F-statistic)	0.007428			

In Table 3.3 urban population has negative impact on per capita income. Theoretically this variable should be positive because all over the world urban population helps to grow per capita income but the result we have here is specifically related to developing countries. We observed that due

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to poor governance and parallel shadow economy urban population is not showing positive sign in developing countries result.

Table 3.4

Dependent Variable: GROSS\_CAPITAL\_FORMATION

Total panel (unbalanced) observations: 4261

Variable	Coefficient	Std. Error	t-Statistic	Prob.
URBAN_POPULATION	0.000156	0.006893	0.022677	0.9819
C	23.47896	0.399967	58.70221	0.0000
R-squared	0.000000	Mean dependent var	23.48729	
Adjusted R-squared	-0.000235	S.D. dependent var	10.30651	
S.E. of regression	10.30772	Akaike info criterion	7.504132	
Sum squared resid	452514.7	Schwarz criterion	7.507116	
Log likelihood	-15985.55	Hannan-Quinn criter.	7.505187	
F-statistic	0.000514	Durbin-Watson stat	0.248441	
Prob(F-statistic)	0.981909			

In Table 3.4 urban population has positive impact on capital formation. This is in line with developed countries result because industrial plant and equipment and other information technology facilities support to capital formation. Hence as urban areas will increase more capital formation will occur in country. Though F statistic is not supportive in this model but theoretical understanding helped us to keep it in argument.

### Conclusion

Urbanization has a positive impact on the economic growth of the developing countries. When people move to the urban part of the country they have more chances of being a part of the revenue generation process and this enhances the economic activities of the country. It is found out the impact of urbanization on the economic growth by taking variables such as per capita income, investment share of GDP, government consumption share of GDP and fertility rates. Result shows mixed evidences where some variables are in the same pattern as observed in developed countries like government consumption, investment share. On the other hand per capita income is not in line with developed countries result. It is also possible that in future research may be conducted by dividing countries in two groups, one that has reached the threshold of urbanization yet and the countries which have not reached the threshold of urbanization and there is now no effect of further urbanization in these countries. Our result is different from Luisito Bertinelli and Eric Strobl (2003) Vernon Henderson (2003) Mingxing Chang and Hua Zhang (2014) because we have taken more countries data without any grouping to check overall result.

There are a lot of factors that contribute to the growth of the economies. In this research we have seen the impact of urbanization on the

economic growth in developing countries with the help of variables like fertility rates, government consumption share of GDP, GNI per capita income and investment share of GDP being the dependent variables and urbanization as the independent variable. We have taken the last twenty seven years data of the 150 countries. According to the results there is a positive impact of urbanization on the factors that determine the economic growth of these countries. According to our results the developing countries should encourage people to live in cities and give them facilities. Growth of planned cities with latest technology and facilities will help to improve economic growth and bring prosperity in the country. Urbanization is not one day task. It takes long term planning incorporating many factors like health and education facilities, information technology support, infrastructure development, control on crime etc.

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