

OPPORTUNITIES AND CHALLENGES: ROLE OF CITIES IN A RAPIDLY URBANIZING PAKISTAN

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Abstract

Cities are considered as hubs of problems like crime, environment, traffic congestion, pollution, disease etc. But cities are, at the same time, are origin of solution of our problems and they are centers of productivity, innovation and machine for collecting people together. Pakistan's urban population is expanding rapidly and by 2050 it is expected to be more than 50%. There is strong relationship between urbanization and economic growth. As Pakistan will observe rapid urbanization in near future so it needs to spend trillions of rupees on city building in the next 30 to 40 years. Planning decisions made today can have immense implications for cities' role in economic growth in the coming 2 to 4 decades from now. Urbanization has gone hand in hand with economic growth. Objective of this study is to assess; Challenges of development like cities' infrastructure investment, provision of basic services like water, sanitation, public places, affordable housing, connectivity etc., and opportunities cities offer in terms of productivity, innovation, idea and knowledge generation since cities host manufacturing and services sector which contributes roughly 4/5 of our economy.

Key Words: Crude and Jacob Density, Creative destruction, Exploratory Data Analysis, Productivity, Challenges and Responses

1. Introduction

Pakistan has been in low growth trap for the past two decade with few exceptional years and this has led to increase in unemployment and poverty. Poverty, in any country, cannot be reduced in isolation from economic growth and our knowledge about economic growth is less definitive than commonly thought. In an era of innovation and creativity, it is highly unlikely that *business as usual* will enable us to achieve high economic growth. There are various sectors of an economy which need attention for achieving high economic growth. Cities have played

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remarkable role in rapid economic development of China, India, Vietnam, Brazil and other developing countries but cities have got so far very little attention both in our research and policy agenda. Rapid urbanization and fast growing cities provide great stimulus for economic growth, job generation and increase in GDP/capita. Pakistan is among very few countries of the world which will continue to observe positive rural-urban migration till 2050s.

According to Credit Suisse (2012) report on “Opportunities in an Urbanizing World”, countries having characteristics: large total population; a current urbanization rate in the range of 30-50%; a low GINI coefficient; uninterrupted access to capital markets; and preferably low or decreasing level of corruption are highly likely to have high economic growth. Pakistan is among those 9 countries included in the report but unfortunately it has very low per capita income and lowest economic growth among all the countries included in the report.

Cities are considered as hubs of problems like crime, environment, disease, pollution, traffic congestion etc. But cities are at the same time origin of solutions of problems and lead to innovation, productivity, economies of scale and benefits of scale. There is strong relationship between urbanization and economic growth. What is the direction of causation is difficult to answer but income and urbanization rate are positively associated (Figure 1)

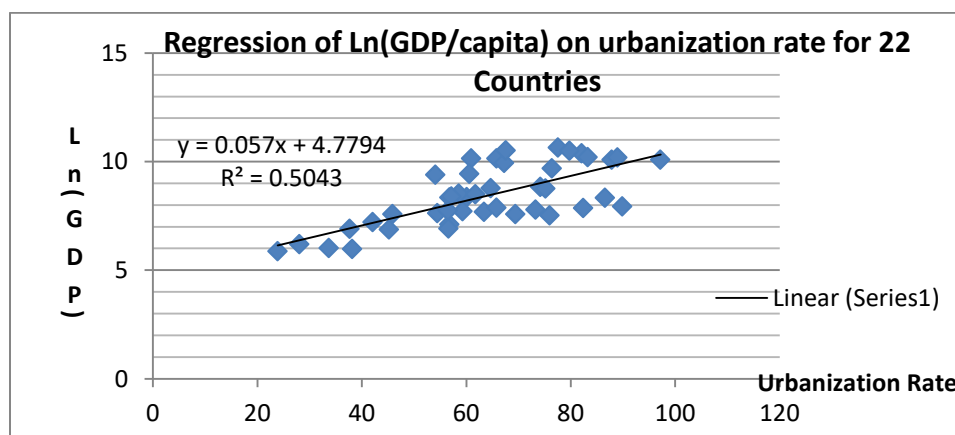
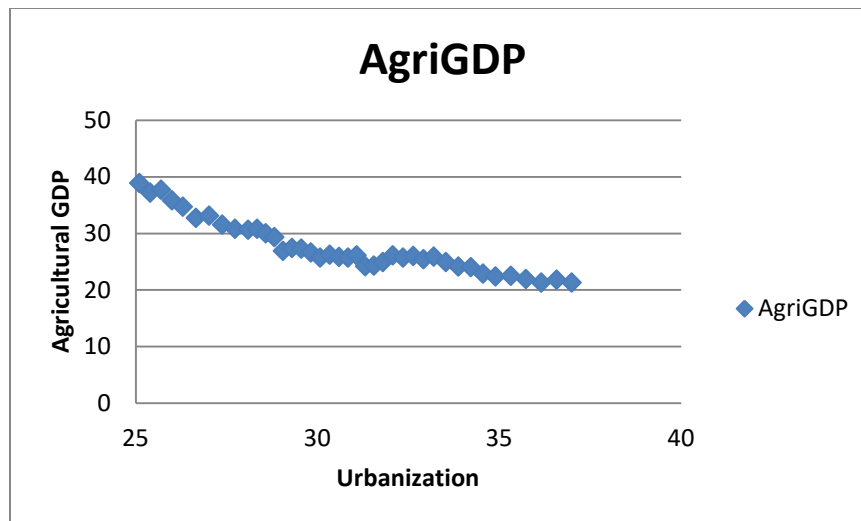


Fig.1 Author’s own calculation by using data from The Rapid Rise of Supermarkets W. Bruce Traill (UN Human Development Reports),

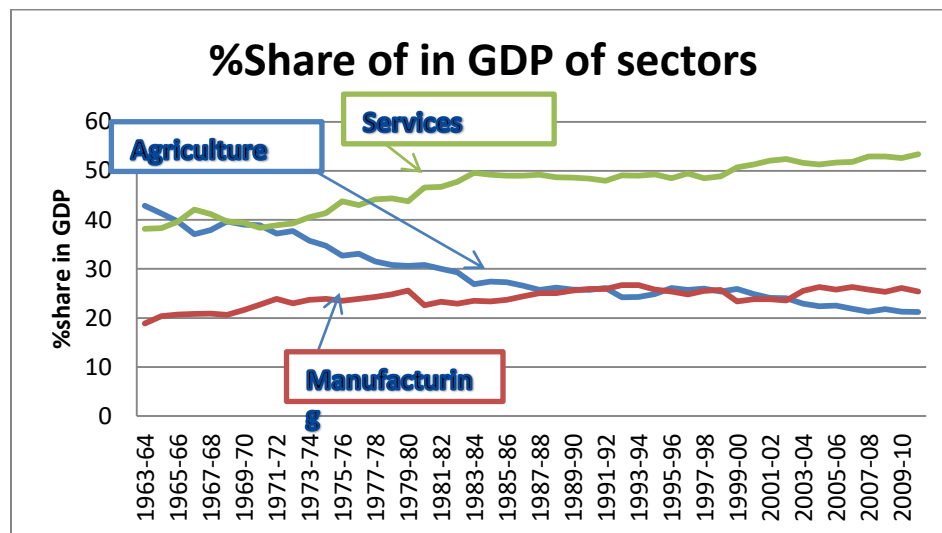
This research aims at understanding the function and characteristics of the cities which make cities as engine of economic growth, job generation, innovation and productivity. Despite rapid urbanization we have not yet fully organized ourselves into making our cities to thrive. There is a problem in mindset where we are confused whether urbanization is good or bad. Many policy makers still think it as anti-rural. But this is a false dichotomy. Cities and villages are interdependent and symbiotic. Urban economy with high productivity can generate jobs in non-agricultural sector which are important for an eventual increase in income and agricultural productivity as well.

For the first time in history urban population is more than 50% and by 2050 it is expected that urban population will account for as much as 70% of the global population. Pakistan's urban population is expanding rapidly and by 2050 it is expected to be more than 50%. As Pakistan shall observe rapid urbanization in near future so it needs to spend trillions of rupees on cities' building in the next 30 to 40 years. Planning decisions made today can have immense implications for cities' role in economic growth in the coming 2 to 4 decades from now.

Pakistani cities matter today since these are home to almost 80 million people and almost 40% of our population. Every major industrial country shift over time from a largely rural, agrarian-population dwelling to one that lives in urban, non-agriculture centers. This trend in increased urbanization leads to higher education level, productivity and development of human capital. We will be no different. Cities will account for a major share of GDP and economic growth. Karachi, Lahore and Faisalabad share in GDP is 20%, 10% and 5% respectively (these figures are not from any official source so can be challenged). We can see the declining trend in share of agricultural to GDP with increase in urbanization.



Data: Pakistan Bureau of Statistics and Pakistan Economic Survey



By 2030 we have majority of our population living in urban centers. Pakistan like other sub-continent countries have a large junk of young population whose future lies in cities. Primary sector is already labor surplus for last two to three decades, so all young population will seek job in cities in future. In absence of an appropriate urban strategy the demographic dividend can become a demographic disaster. These jobs can only be made available if our cities thrive. Despite rapid urbanization we

have not yet fully organized ourselves into making our cities to thrive. There is a problem in mindset where we are confused whether urbanization is good or bad.

2. Background

Cities have long been incubators and transmitters of ideas, and correspondingly, engines of economic growth. Cities have been centers of innovation since Plato and Socrates time. After Roman Empire failed to meet the demand of urban area and was replaced by rural stagnation, it was the Muslim Caliph Harun-ar-Rashid who made cities as centers of learning. Except Constantinople, all other three cities with a population of more than fifty thousand –Seville, Palermo, and Cordoba- were all Islamic. The Islamic caliphates created a new trading network that exchanged both goods and ideas over vast distances. Baghdad was the notable cities among all. Islamic ruler collected scholars and were assigned to import the world's knowledge and translate into Arabic. Baghdad became a center of excellence in the world. Later on this rich treasure of knowledge was translated back to Christendom after the crusades and Europe became urbanized and its rate of innovation increased. Besides development of military prowess, overcoming infectious diseases- the growing commercial cities did more than their share in Europe's fast economic growth. Commercial dense cities were ideal for innovation and imported knowledge from the rest of the world particularly from the East. These dense commercial cities developed legal rules regarding property rights and commerce that serve as guide today. [Glaeser 2011]

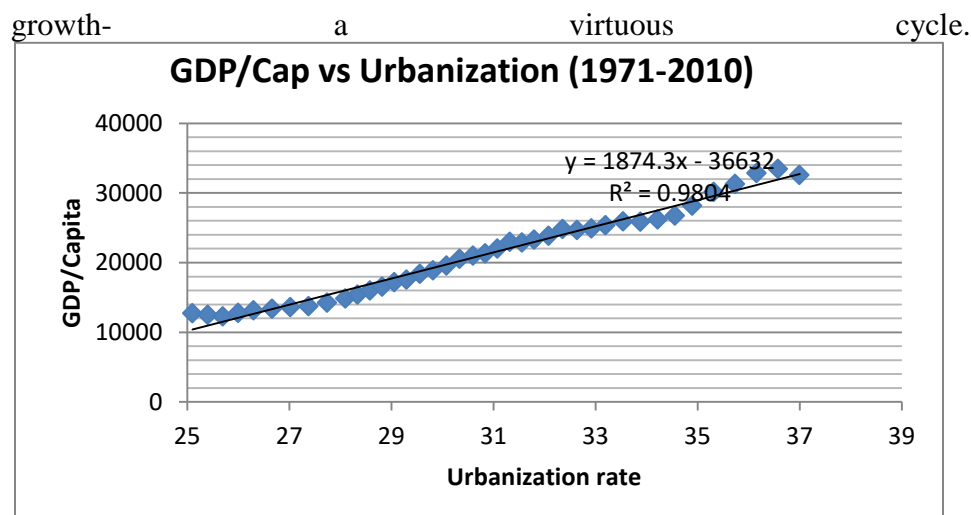
World is mainly organized around cities despite significant reduction in transportation and communication costs. Cities are key source for sustainable economic development and innovations. Innovative and creative activities are linked to the ability to associate economic activities in city regions. Dynamic and creative cities are the main drivers for both national and global economies. Therefore, the better the cities are, the better the economies are. Innovative systems are frameworks within which entrepreneurs and knowledge workers can function and use their competencies. The dynamic interaction of actors of companies, learning and research institutions and governments is the basis of innovative system. Cities, which served as the centers of innovations, attract

investors, technological firms and knowledge organizations such as universities, which generate ideas and facilitate the development and diffusion of technological knowledge. These factors become the main forces driving economic growth.

There are some who consider that developing countries like Pakistan's cities have become obsolete, hub of social evils, bad policies led to increase in crime and poor people to concentrate in cities which repelled the rich and cities are ideal places for social problems. They argue that in era of fast communication it is not necessary to be concentrated in urban areas. All this is true but still no end in sight for increasing in urbanization of 10 thousand years. Demand for urban proximity continued. Increase in demand shows up not in population growth in cities but also high house prices.

Cities are not only ideal for innovative ideas generation which leads to technological development but prosperous cities which derive demand for food upward and compel market activities sequentially also create employment. Increased demand for food requires investment in refrigeration and cold store infrastructure. Cities investments seem win-win propositions since cities facilitate connectivity, density and clustering that generate economic growth. Richard Florida, the author of *Rise of Creative Class*, points out that cities speed up the metabolism of daily life, and accelerates the combinations and recombination that spur innovation, business formation, job creation, and economic growth. **“Jobs require cities”** and cities generate more jobs than companies.

Cities provide an enabling environment which leads to high economic activity. Rich and poor countries differences exist mainly because in general the former's cities are far more productive than the latter. Trade has also developed in cities and market towns which have been friendly in commerce. Domestic commerce friendly cities will not only help us to achieve high economic growth but will also play an important role in job creation, local branding and entrepreneur development, enhancing productivity etc. Urbanization has gone hand in hand with economic growth. The key reason for this relationship between GDP and urbanization is that the increased density of urban population produces scale benefits that boost productivity, which in turn enhances



Cities are ideal both for consumers and suppliers. What kind of cities facilitates economic growth and job generation? There is strong correlation between densities in cities and productivity. 21st is not only century of cities but one should say century of dense cities. So when it comes to economic growth and the creation of jobs, the denser the city the better. Denser cities have scale effect due to presence of large number of consumers and lot of turnover in business. Dynamic cities need to be dense in a Jacob sense, consumer friendly, centers of knowledge and ideas generation, commerce friendly, key to our health and social wellbeing, accommodative to lower middle class etc. According to Glaeser (2011) *“The problems for arbitrarily restricting height in the developing world are far more serious, because they handicap the metropolis that helps turn desperately poor nations into middle-class countries. The rules that keep India’s cities too short and too expensive mean that too few Indians can connect, with each other and outside the world, in the urban places that are making that country richer.”*

Cities’ functions and benefits of densities are in terms of economic growth, job generation, reduction in poverty, benefits of specialization and innovations. Glaeser (2000) defines some core functions of cities which make them dynamic. One of the main functions of cities is to be consumer friendly. Cities facilitate consumption and due to reduction in transportation cost manufacturing is moving away from cities. But services sector provision requires cities to be densely populated

since it is economical for them to serve a large number of consumers in a concentrated place. A thriving city will have to be an attractive place for people to live. As income increase, demand for pleasant local environment will continue to rise. Cities of 21st century are consumer cities and very soon our upper and middle class will feel the need for reverse commuting rather than further urban sprawl due to traffic congestions. Large dense cities can afford to have libraries, museums, sports clubs and symphonies which small or cities with low density cannot afford. Big cities with access to public amenities are consumer heavens. One of cities' key functions must be to please consumers and make cities livable. A rich variety of services, thriving social environment, and access to public amenities can make big cities consumers' heavens.

Secondly, cities are productive because they move ideas. Though there is a common perception that after information technology revolution distances don't matter. But Professor Moretti author of "New Geography of Jobs" argues that geography still matters and certain places due to concentration of a certain level of human capital are more conducive to innovations than other places. Cities have a comparative advantage for being the first in innovations whether fashion industry or information technology. There is a debate these days whether cities will retain this edge in moving ideas or not depends on the question that IT industry will replace face to face communication or not. But email and other electronic means of communication are complements of face to face communication rather than substitute. There has been manifold increase in traveling by the services providers. This is seeming paradox but we make more telephone calls to those with whom we meet often.

Job generation is another core function of cities. Pakistan like other sub-continent countries has a large junk of young population whose future lie in cities. Primary sector is already labor surplus (Human Development Report in South Asia (2002) by Human Development Center), our young population will seek job in cities in future. These jobs can only be made available if our cities thrive and provide environment conducive for services sector to take off.

3. Opportunities in Dense/Walkable Cities

The future of the city depends on the continuous advantage of density. Traditional cities relying solely on one or two manufacturing industries have highly uncertain future because poverty makes them highly unattractive for consumer heavens. Such cities will continue to exist but talented people leave the city. Why cities are interesting places to live and best places to create jobs? Cities group people together and facilitate communication among people. Cities serve as hubs of business activities, cultural events and innovations. There is strong connection between cities' development and innovations. Density makes all this possible by providing opportunities to firms to agglomerate, grouping likeminded people to develop constructive dialogue with each other which lead to more innovative thinking. Dense cities are attractive places for services industry where they can serve various customers better. Densities also help to develop more specialization. Dense walk able cities are normally more productive than sparsely populated cities. Cities make a virtuous cycle.

Of course idea of dense/walkable cities is not acceptable to those who have good spacious homes, but we should look into wealth generation by urban density which gives urban homes their greater value in the first place. So preservation of cities due to NIMBYISM and ignoring economic opportunities a dense/walkable city provides is in general very harmful both for rich and poor people.

Dense/walkable cities are ideal both for customers and suppliers as it develops strong competition which leads to better services. Higher the density more is the number of jobs. Specialization have high pay-offs in a densely populated area. Density facilitate people about the use of new technologies since people talk on cafes, corridors and restaurants with each other about new products and their benefits. Density has scale effect as there are huge consumers and lot of turnover.

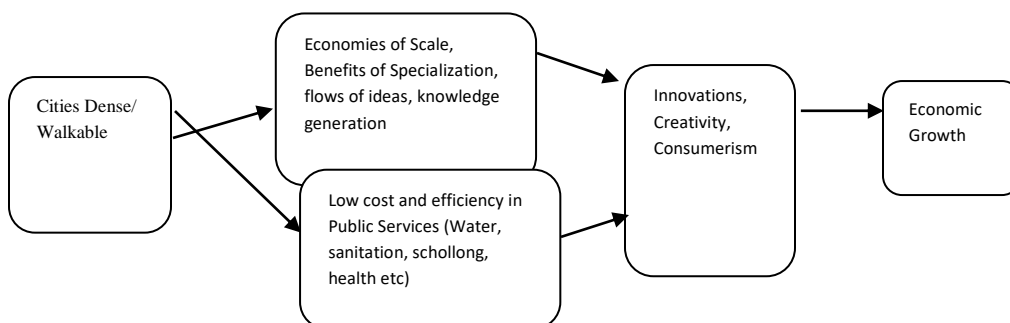
Extreme density is always not desirable and there are some problems with very high density area. But economic opportunities in general and wealth of city increase with increase in density. We need to design our cities having moderate to high density if we want our cities to serve as engine of growth. Due to NIMBY culture, there is always strong

opposition to density thus creating zoning laws. This is occasionally useful but in general harmful for the society.

Dense cities are the centers of specialization, innovation and knowledge creation. Densities facilitate creative thinking and innovation by pooling people together to discuss issues of their interest. Dense cities generate communication and interaction promotes creative thinking, creates knowledge spillovers and develops new ideas and challenges, provide opportunities for learning and sharing. This will lead to “*creative destruction*” which is necessary if we want entrepreneurship should take place in services and manufacturing industry to take place.

Cities attract talent and skilled labor that allow specialization in knowledge, skills and management capabilities possible. Cities growth and economic growth are often positively linked. Cities provide ground for economic development.

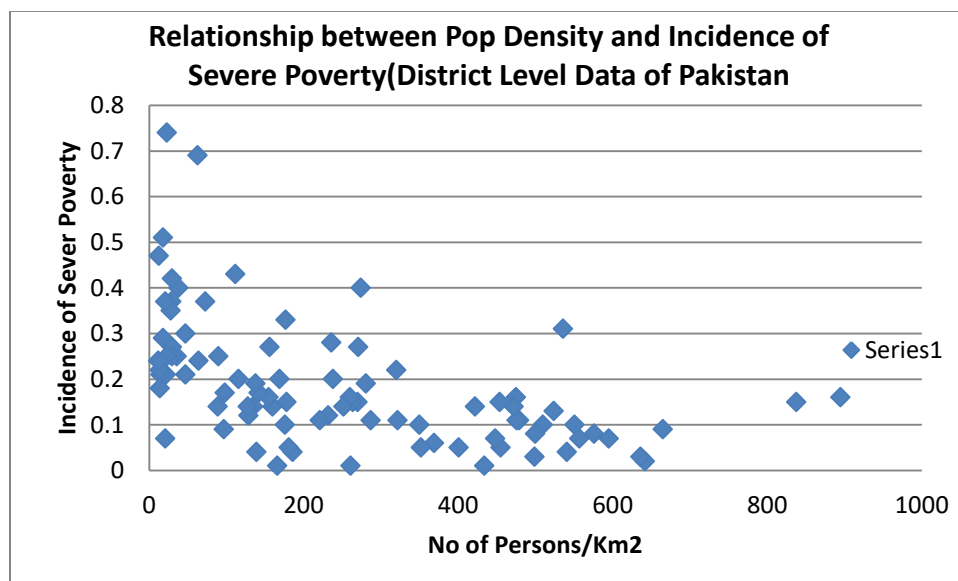
Cities also play crucial role in development of domestic commerce particularly services sector. Over time transportation and communication costs have been reduced dramatically. This has made possible for manufacturing sector to be located in any corner of the country or the world. But this reduction in cost has not reduced the importance of providing services to a dense cities and face to face dialogue.

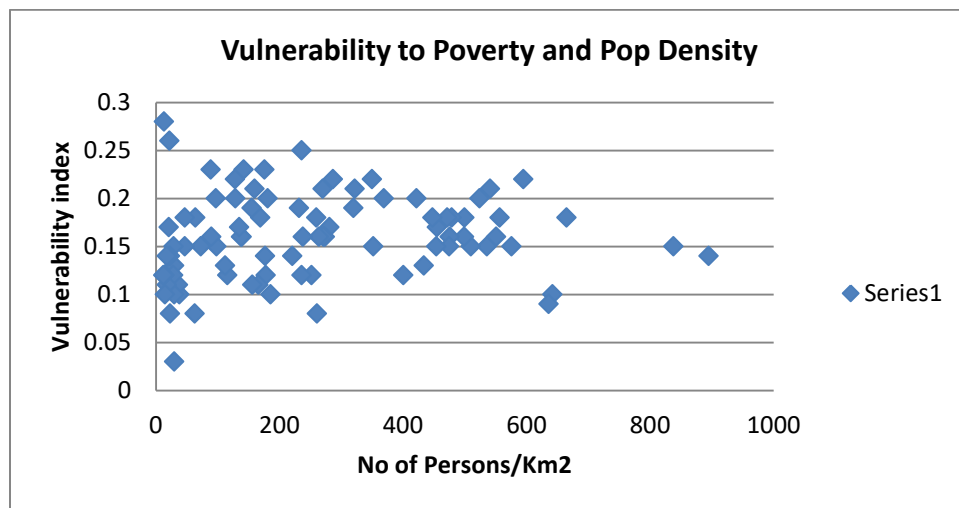
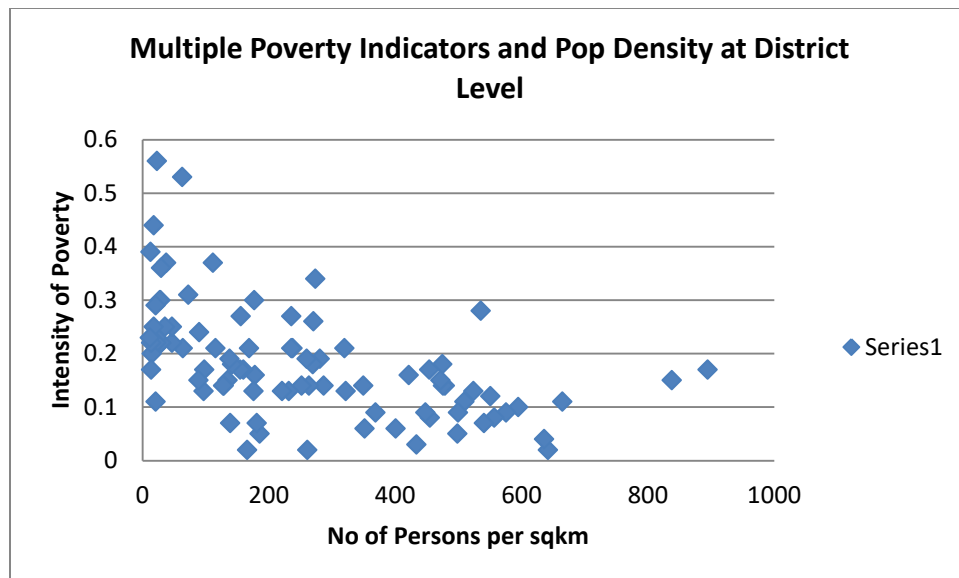


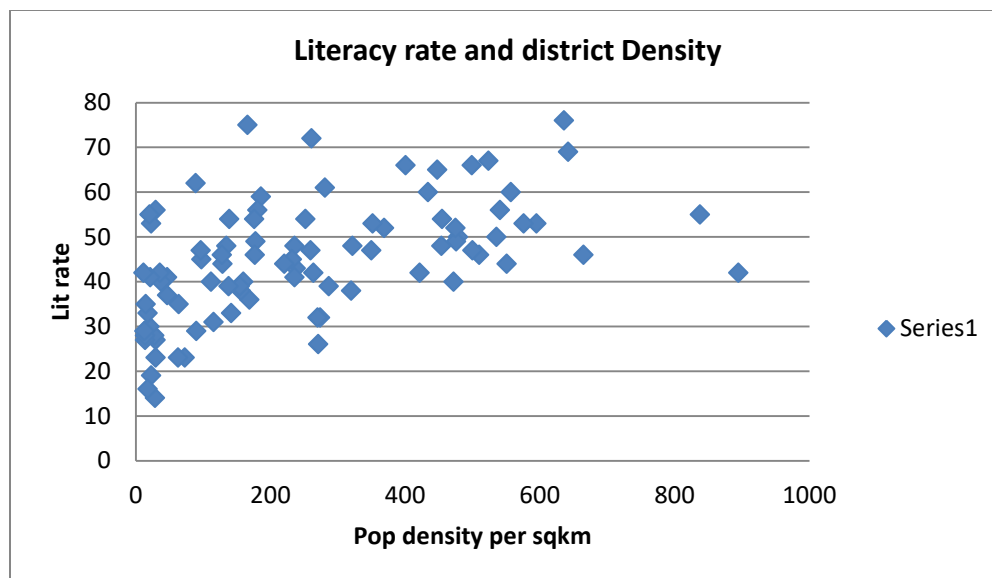
4. Density and Socio-economic indicators

We have data on district density, poverty indicators and literacy rate at district level. We observe negative association between poverty indicators and district density. Similarly there is positive relationship in

literacy rate and district density. This may be because density makes it possible to provide basic amenities like education, health services, clean drinking water to a reasonably populated cluster of villages or cities in cost effective way. While providing these facilities where there are 5-10 person per square kilometer is not only costly but also not sustainable in the long run due to underutilization of resources. We have found many ghost schools in Sind, it may not only be fault of the governmentt but also lack of demand for education by parents or very few school going children in that area after couple of years led to closing down of schools. So it may not be the case that investment per capita in poor district was low but it might due to lack of economies of scale it didn't not have major impact on welfare of people in those areas. Following figures show a rough idea how important it is for population to be concentrated for development of human indicators.







5. Dense Cities and Domestic Commerce

Density benefits both producers and consumers because of reduction in transportation costs.

In production, cities reduce cost of moving goods, people and ideas. In consumption cities facilitate access to large public goods and to specialized services. Whether cities are desirable or undesirable social milieu for consumers is not known. But two trends are going to continue into the foreseeable future. *Firstly*, with increase in income consumer will demand for luxury goods and especially important for commuting, a higher opportunity cost of time. *Secondly*, improving technologies and communications for transporting objects and ideas may eliminate some of the productive functions of the cities but at the same making more valuable them in other ways.

A venerable urban edge of location of manufacturing industry located in urban area has disappeared with improvement in technologies for transportation of goods. So manufacturing has left the cities and the wholesale business is about to leave. Nevertheless, retail business roots will be established more strongly than before. Since urban density is a great advantage for providing services and cities also remain main places for moving ideas.

Big dense cities have diversity and accommodate a variety of specialization inside the region. “In a sense a metropolitan is a region self-contained universe that generates a large share of its own demand. These regions are different from other regions by being larger and capable of according more diversity [Economic Role of Cities UN Habitat].

Firms select locations where co-location of agents, chain businesses and the formation of clusters that benefit from frequent contacts, shopkeepers benefit from consumers’ complementary shopping behavior.

Countries with more urbanization contribute more to GDP. Gains from urbanization to the economy stems from several factors

- Efficiency gains from having firms located in the same place. Service provider likes to serve a dense street and want to be located close to their customers.
- Cities are center of innovation in the production of ideas, knowledge and their commercialization
- Knowledge spillover from other people

6. Density increases supply of Houses

Pakistani cities have increasing demand for housing but how that demand affect prices depends on supply. Costly houses make it difficult for people to have their own homes and leads to a mushroom growth in urban slums and urban sprawl. Building up in one area reduces pressure in other area. With increase in supply of houses, prices of houses will fall and keeping supply constant will lead to house price rise. Relationship between housing supply and affordability is not just a matter of economic theory. A great deal of evidence links the supply of space with the cost of real state. Places that build a lot are not expensive and expensive places don’t build a lot. Height restrictions may suit our minds but all this is not without a cost and if we really want to accommodate our masses in our life we have to think differently. Without affordable housing option in the cities, it’s difficult to attract/retain talent in cities. The growing housing supply determines not only prices but the number of people in a city.

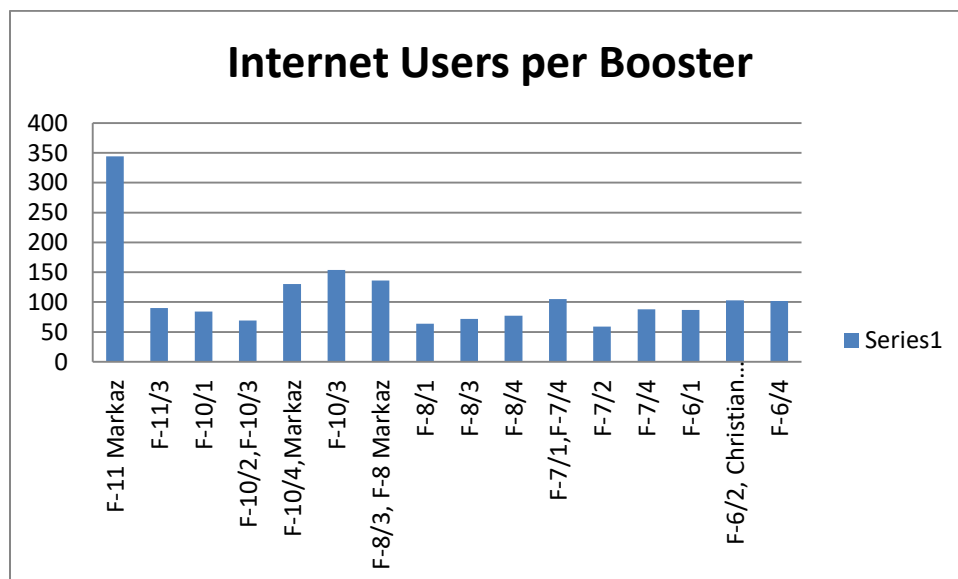
There is almost perfect correlation between housing and number of people. If housing increases by 1 % there is an increase of 1% in cities population. Moreover, tall building should be built in the center of the cities not the edge. It is natural because center of the cities has the highest demand. Cost of restricting development is that protected areas have become more expensive and more exclusive. Zoning rules, air rights, height restrictions and landmark boards form a web of regulations that has made buildings more and more difficult.

The problems for arbitrarily restricting height in the developing world are far more serious, because they handicap the metropolis that helps turn desperately poor nations into middle-class countries. The rules that keep India's cities too short and too expensive mean that too few Indians can connect, with each other and outside the world, in the urban places that are making that country richer. (Glaeser)

Tall buildings facilitate business people to be located close to each other and can quickly group together for business meetings. Tall buildings make it possible for business people to be located close to each other and can easily trot together for business meetings.

“If Mumbai wants to promote affordability and ease congestion, it should make developers use their land area to the fullest, requiring any downtown building to have at least 40 stories. By requiring developers to create more, not less, floor space, the government would encourage more housing, less sprawl, and lower prices.”

7. Density of Houses and Business Profits



Business cost is 4 to 8 times less in a densely populated area than low density area. Charging uniform rate for a service to areas with varying density implies that residents and businesses in more compact neighborhoods are likely to be subsidizing those in less compact areas. Density of people and houses matters a lot for low cost service delivery. It is cheaper to provide a service in a dense area since it minimize the cost per unit due to proximity. Due to proximity, a large number of residences and businesses benefits due to economies of scale and benefits of specialization.

Equal cost for service delivery to low density area means providing subsidy to the area by charging more to high density locations and such subsidies may frequently be paid by those who can least afford them. The most important variable to affect unit costs are the number of persons and jobs per mile of service. Per units costs associated with lower density area are more than higher density area.

As evidence I use data from a company providing wireless internet service. Service transmission is through towers whose average cost per tower is approximately Rs.300,000 per month. It is observed that company

have 4 to 8 times more customers during peak hours in a high housing density than low density housing in twin cities of Islamabad-Rawalpindi. But the company charges same rate to all the consumers which implies that consumers living in densely populated areas are subsidizing those who are living in low density area. Since low income people live in congested areas and high income people live in big houses with small density. This implies that poor people subsidize the rich. This holds true in other utility services like maintenance of sewerage pipelines and collection of garbage since cost per square kilometer for densely populated area for operation and maintenance of water, sewerage is lower in densely populated area than low density areas.

8. Density Cost

Of course, density is not without a cost. There will be traffic congestion problems but all these have solutions. Give away free, people will use too much of it. Anti-congestion tax is not only for rich nations but also for the developing countries. Countries like Singapore imposed congestion tax 40 years ago when it was not rich. We can also impose such taxes and ask drivers to buy those papers and display on their car windscreens while passing through certain congested areas. Technology use like Radio Identification Frequency can be used to guide commuters to use alternative routes.

9. The Challenge

- Supportive infrastructure for providing an economic and social environment conducive to growth
- Cities require soft-infrastructure like education, knowledge workers, higher quality education (For more details on software infrastructure of development FEG 2011 is good document to read)
- Provision of services like safe drinking water, sanitation facilities, health facilities, uninterrupted power supply across all segments of urban population.
- A mindset of rural-urban divide has to be replaced by rural-urban development synergies
- Affordable housing

10. The Response

- Urban governance strategy not only to develop cities but also to link rural-city economy together.
- Fiscal Decentralization and reformation of bureaucracy
- Creating urban infrastructure through investment –difficult but very important.
- Affordable housing, water, public transport etc.
- Liaison among various tiers of governments : Federal, Provincial, City and Town Level
- Urban strategy for viable cities for people with density/walkable rather cities for cars
- Strategies for affordable housing to curb slums

Conclusion

This study is an effort to highlight the importance of cities in economic growth, job generation and that cities are a win-win proposition. There is need to further explore role of cities: idea generation, economic growth, job generation, comparing Pakistan with other regional countries in terms of urbanization and its share in economy. Cities role in economic development has not been part of our national research agenda but this is probably the most important one. We have to invest trillions of rupees in the years to come in cities infrastructure so it's the right time to study the role of cities and type of cities we need. How Pakistani cities can help its economy to have high sustainable economic growth is difficult question to answer but important one. According to Charles Landry *“Great places embody seven elements. They are places of anchorage, they feel like home, there is with a sense of stability, tradition and distinctiveness. They are places of possibility, ‘can do’, stimulation and buzz. They are places of communication and networking, where it is easy connect, interact and move around, the outside world is accessible, and you feel you are part of a bigger, extensive web. They are places to self-improve, learn and reflect. They are places of inspiration. Culture is alive and, finally, a great city is well put together through design.”*

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