

A PERCEPTION BASED EVALUATION OF THE FACTORS AFFECTING THE LAND VALUES IN KARACHI THROUGH THE TECHNIQUES OF ECOLOGICAL ECONOMICS

Saba Masood*

Abstract

The spatial variation of land prices in a city is very important indicator of real estate economics. The ecology of place is a pivotal contributing factor in the variation of land pricing. This study will examine the spatial variation of land values in Karachi through appraising the socio-economic and ecological factors.

Karachi is the largest and the most populous city in the country. Karachi is main seaport and financial centre of Pakistan as well as the capital of the province of Sindh. It is Pakistan's premier centre for banking, industry, economic activity and trade. Land of Karachi city is quite a structurally complex and it remains mostly affected of unpredictable value ridden variations due to certain ecological elements, environmental forces, environmental conditions, climax, and the real estate economy. These factors would determine the land values variations within residential areas very different from the factors, which determine land values within an industrial area. Therefore, it might not be possible to determine a uniform pattern of land values for different areas of the city. The present study will help us to analyze the land values distribution through ecological economics. Extent of considerable regional differences in geography and resource endowments implicated in marked changes in the profile of land distribution in Karachi, it seems quite natural to question the problem of land value distribution. Therefore, in this study an attempt has been made to comprehend the economics of land values with reference to the economic, environmental and geographical factors in the context of the quality of life in the Mega city such as Karachi.

Key words: land value, economic factors, ecological economics, physical location, environmental conditions, real estate economy

* Saba Masood, Lecturer, Department of Economics, University of Karachi, Karachi, Pakistan

Introduction

Karachi is not only the largest city of Pakistan but one of the world's largest cities in terms of population and also the 11th largest urban agglomeration in the world.¹ The city has an estimated population of 21 million as of April 2012. The population of the city has increased by 114.5% from 1998 to 2011.²

Karachi is the main seaport and the main financial hub of Pakistan, as well as the capital of the province of Sindh. The city is the premier center and hardcore for the industry, banking trade and hub of economic activities. For this reason, it attracts Pakistan's largest corporations such as shipping, textiles, industry, automotive industry, arts, entertainment, fashion, advertising, publishing, software development and medical research etc. In this way, Karachi is considered as a nucleus of higher education in the Muslim world in general and South Asia in particular. Over the past several years, regional land value in the Mega city like Karachi, has not only affected at both the level of economic growth and land capital but also has greatly influenced the quality of life of individuals in the city.

Undoubtedly, there are few studies which attempt at analyzing and explaining the land value and its consistent development. But these studies have not considered ecological factors and their economic worth interns of the effect on the land values. Therefore, it is important to identify and evaluate the ecological factors which are having a direct bearing on land values.

In few studies such as Rehman³ (1983), Dowell⁴ (1989) and Akhtar⁵ (2004) spatial distribution of land value through socio-economic parameters were considered but without any ecological parameters. Nevertheless, without underscoring the importance of previous studies, it is indispensable to benefit from these studies even though they are not fully applicable on current scenario. It is inevitable to identify and consider those factors which can directly and indirectly influence the land values in Karachi city. Hence, by keeping these views in mind, this study will help us analyze the selected factors which can change the value of land in Karachi. Land values and their determinants are very strong indicators followed by political stability, economic growth, environmental justice and social integrity. These considerations will significantly contribute a lot in the studies of ecological economics in relation to determining the land values in Karachi.

Study Area: The Strategic location

¹ Population Estimates for Pakistan [United Nations World Urbanization Prospects report \(online data\)](#) 2010

² The news, Monday, April 02, 2012

³ Rahman Shakila. 1983, [Population Densities within Karachi City](#), M. Phil thesis, University of Karachi.

⁴ Dowall D. 1989, [Karachi Land and Housing study](#), Karachi Development Authority.

⁵ Akhtar Shamshad, [Spatial Distribution of Land Values in Karachi](#). PhD Thesis, University of Karachi

One of the key issues of growth for Pakistan is the uni-polar focus of the development of urban areas in order to unleash the full economic potential of cities.

Karachi has numerous spatial advantages to its credit which significantly attract huge investment in the field of industry and the trade. This mostly expands the large scale employment opportunities to the people of city. Following this development, the city's population expanded dramatically, leading it to threshold of gigantic human progress because of the huge employment available through the port and dominant industrial and commercial centers. This increasing dominance of its industrial, commercial and port-related activities, people collectively benefited from the city's prosperity. However, the current development drift are to deconstruct the economic uniformity of the city due to the split of urban and rural Karachi. This dangerous zone may indispensably enlarge the gap between the city and its surroundings. As it has been observed through the Karachi Mega Cities Preparation Projects: which describes such as:

Planning and development controls within Karachi city remain weak. This is as a result of ... the fragmentation of authority over land between the various government agencies which have significant land holdings, and.... .. poor enforcement of the planning regulations as they do exist. The major planning and development control issues include: ... absence of effective coordination of planning process between land-holding and controlling agencies; [following this] the distribution and development of public land which does take place is not guided by development policies and strategies (or spatial planning); [the] control systems for land development by private developers are ineffective [while] building and construction provisions for leasing out of public land are not enforced and ... conditions in building permits are seldom followed. ⁶

Further more,

Nearly 90 percent of city land is under public ownership, but the owners are reluctant or unable to make this land available for development and housing. Partly for political, and partly procedural reasons (public land can only be disposed through public auction), land is not now being released for development. One result of the absence of land available for development and the demise of KDA is that there is now no government agency actively pursuing the opening up of land for serviced plots. Where government has failed, the informal private sector has stepped in. The "land mafia" of the informal sector illegally obtains access to public land, sub-divides it, and sells plots at relatively low prices to newcomers. Where "official" plots are available (more than 400,000 plots are said to be available around the City and at Hawkesbay for housing) these cannot be occupied due to a complete lack of services. Serviced plots which can be offered are outside the affordability range of most low-income dwellers. ⁷

⁶ Karachi Mega Cities Preparation Projects. Final Report: August 2005, Volume 1, p.xi

⁷ Ibid p.xi

Objectives:

The present study analyses the spatial variation of land values distribution through ecological economics. Extent of major regional differences in environment and resource endowments has marked changes in the profile of land distribution in Karachi it seems natural to question the problem of land value distribution.

Beside the main objective the following sub-objectives will be achieved:

1. To determine the land values in Karachi rigorously appraising the economic and ecological indicators
2. To examine an overall distribution of land values within the city through the techniques of spatial economics by perception based survey
3. To identify the major causes of changes in land values:
4. To outline the marked changes in the value of land in different areas of Karachi.
5. To review the historical factors involved in land value structures and its significance in the economic performance of Karachi.
6. To bring out the constraints, socio-economic and political problems constituting hurdles in the economic development of the Mega city.

Significance of the Study

We understand the possibility of the economic growth of Pakistan is gigantically derived from the development of urban areas beyond the full economic potential of the province of Sindh. In order to unleash economic potential of the city, it requires speedy improved urban governance and management and above all finance through the investment and the provision of sophisticated infrastructure and better service delivery. This is the great reason beyond the speedy economic activity shaping productive relations and decent standard of livelihood and well-being of the residents of the city. However, we find some constraints in the way of Karachi's development. Such as:

1. Lack of good policy-making for the coherent development in future.
2. Lack of executing planning regulations.
3. Poor understanding of institutional roles, rights and responsibilities.
4. Lack of sufficient funds to built, rehabilitate and perpetually operate and sustain the urban infrastructure, service and duties. There is the arch need of productive activities for Karachi city in order to ensure domestic and foreign investment regionally as well as globally.

These are the genuine issues and unexamined problems likely to develop in Karachi's rapidly losing its competitive market position in the international world today. Therefore, we must urgently address these problems in order to wriggle the potential hub of economic growth out of loss and extermination of productive economic activities.

Uneven and fluctuating rate of urban infrastructure demands that we identify the major causes of changes in land values to address the future issues associated with the ecology of place in present-day planning efforts. In the mega city like Karachi; research is viable in determining and evaluating the diverse land value with reference to the different area of interests and quality of life through ecological economics.

Importance of Ecological Economics in Determining the Land Values

Ecological economic is the interdisciplinary field of research that involves certain approach towards economics, natural sciences, social sciences, philosophy and various other dimensions ensuing the ground-breaking insights to understand the depth of environmental problems. It includes an insurmountable analytical perspective, radical as well as conventional, in order to construct the more concrete understanding of human relation to environment e.g. human interaction with ecosystem. The contemporary research in this field reflects upon nature conservation, natural resource management, pollution, and above all layout planning along with environmental impact in terms of evaluation/assessment etc. for instance:

Ecological Economics considers the earth and its ecosystems as the larger system, of which the human economy is just a subset. In this paradigm there is an economy of nature, a distribution of goods and services, in which human activity is merely one aspect of natural activity⁸

furthermore,

Ecological economics also question "strict and fixed assumptions in traditional economic theory with regard to individual behavior," tending toward the belief that behavior is largely motivated by social expectations, and that these can be altered. Humans, then, are not seen as motivated strictly by self interest, but as beings shaped by, and interacting with, social and natural environments.⁹

Socio-economic and ecological factors are largely responsible for the value of property. Man's attitude towards the surrounding environment is not neutral because humans search for locations that deliver a high quality of life. Those expectations particularly concern man's daily surroundings, including residential areas or recreational grounds. The quality of that environment largely affects the decisions made on the real estate market. This factor influences the value of property, and its social popularity generates economic benefits.

Less polluted, distant from slum areas, industries, mills, factories, river like open drainage system and the lands where drainage system is highly developed have more value. The presence of greenery, clean Surrounding atmosphere, forests, water and the arrangement of those spatial features directly affect buyer attitudes and the value of property. Moreover Economic factors such as inflation, investment, interest rate, rental value, market value, construction costs and economic stability directly influence the value of property.

Data Sources

Following data sources has been extensively used to acquire the primary and secondary datasets:

⁸ Environmental economics basic concepts and debates by Ethan Goffman released in April 2007.p.10

⁹ Ibid.p.14

- 1) CDGK Maps
- 2) Population Census Data
- 3) Economic Review Papers
- 4) Statistical Review Papers
- 5) Achieved Newspapers
- 6) Estate Agencies Feedback (Informal interviews)
- 7) Formal Interviews with people (Questionnaires)

Research questions

1. What are the determinants of land value?
2. What mainly derives Karachi land value?
3. What are the sources of land value in Karachi?
4. What are the major economic factors influencing the value of property in Karachi?
5. In which areas of Karachi marked changes in the value of land have taken place in the last few years?
6. Which environmental conditions mostly affect the price of land?
7. What was the peak time for real estate business in Karachi?
8. What are the causes of increase in the Land prices in the last few years?
9. Which services connected to the property largely change its value?
10. Is law and order situation one of the major determinants of land price variation in Karachi?

Methodology

The methodology to achieve the following techniques has been adopted:

- a) Rigorous literature of review to explore the relationship between land values and spatial economics;
- b) To discover the role of political economy through newspapers archival material;
- c) To conduct a market survey of the real estate business in representative localities

The environment of an area is quite detrimental in value or price of the land in general. This has been noticed both in developing and developed countries. For this purpose, we studied the land value and price determination of the various kinds of lands in Karachi. This has been observed in Karachi by observing various areas through an in-depth structured questionnaire. There is general dearth of literature in this context, as we encountered problems to collect the data already published by the Governmental and Non-Governmental agencies. Nevertheless, for the first hand primary data collection we visited several real estate agencies working throughout the city. We selected different areas of Karachi and visited real estate agencies in this regard. As we are aware of the fact that real estate agencies are the fundamental source of multiple information on the land values. Although real estate agencies are private agencies which mediate between private owners and that of buyers and sellers in order to sell or purchase shops, houses, plots near the city centers, remote areas, newly built markets and developing areas altogether. The private estate agencies are found everywhere around the city, mostly in the developing areas around the Karachi city. The real estate agents are supposed to contemplate over the fluctuation of prices of lands in contrast with prices of shops, plots

and houses in vicinity with city centers, markets, and those areas free of pollution, contamination and human trafficking etc. In this manner, real estate agencies turned out as the best source of data collection for our little research.

In addition to these sources we simultaneously conducted a well-structured survey through the questionnaire in order to collect the data about land values through their inherited perception. Following this, by using sampling technique we collected 44 samples randomly selected from different areas of the city with the help of purposive random sampling technique. The results acquired through these methods are given below in a very compact way.

Most estate agents, we visited, worked between 12 to 22 years of experience in this field. They shared their insurmountable information in this regard which could not have been possible to obtain through published data.

Moreover, the 90 percent of the real estate agents worked in all dimensions of purchase and sell of the plots, residential, commercial and rental.

Findings and Analysis of the Results

Presentation of Data:

In the proceeding tables and figures an essence of the responses of the concerned respondents has been presented. The response of the people has been documented according the questions that were asked, most of the questions are close-ended, provided with multiple choices. The respondents are free to pick one or more than one answers. The percentage of each question has been divided with the total number of the respondents.

Table 1 exhibits selected critical factors used to determine the value of lands. According to the findings using the collected samples from different areas of the city, more than 81 percents of the respondents believed that the economy is the main driving force behind the land value followed by environment and credibility of the society

Elements of land value determination by the respondents

Table-1

Determinants of Land value

S. No	Elements/ Critical components	frequency	Valid percent
1	Plot size	14	31.81
2	Environment	34	77.27
3	Proximity to city centre	10	22.72
4	Credibility of the society	26	59.09
5	Locality/ neighborhood	24	54.54

6	Legal status	22	50
7	Availability of utilities	14	31.81
8	Economy	36	81.81

Figure: 1

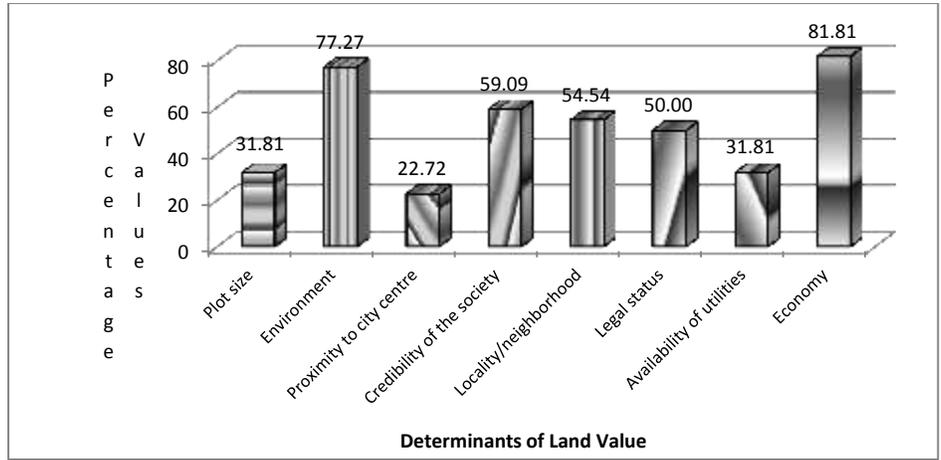


Table 2 below depicts that political stability and layout planning are considered to be the major causes of flourishing the economy of the city which directly affect the land values at the grass root level. Mostly investors spend money for the purchase of those lands which are construed to possess well-formed lay out planning and good future in terms of smart output. Moreover for major business tycoon’s peace and security ensures the best of trade, business both at the macro and micro levels. Every day law and order situation of the city definitely affects and ensures the security and stability of the business class in the city.

In relation to these issues land mafia has exerted a very counter-productive impact over the real estate business. It has not only crippled the economy of real estate business but also has discouraged the exercise of purchasing. With the loss of good purchaser, the seller loses the credibility and vanishes from the scene. This attitude of the purchaser and seller ensue from the lawless intrusion of land mafia in this field.

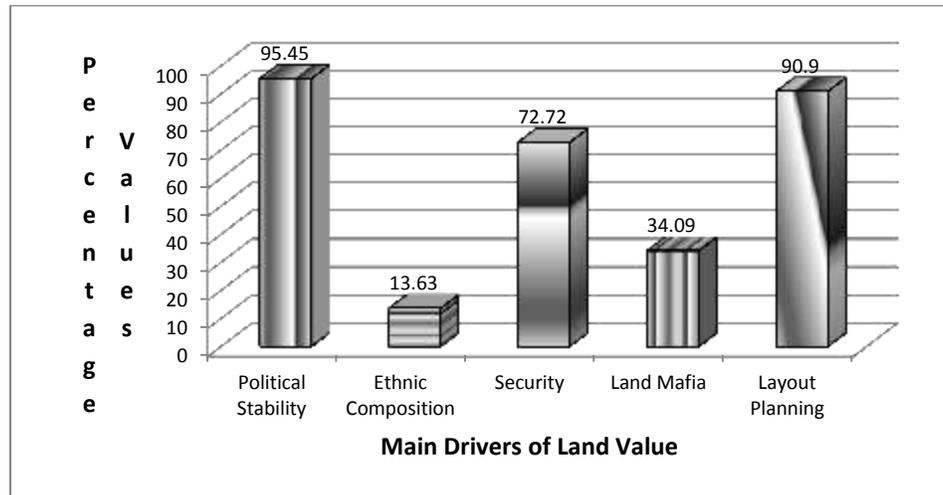
Table-2

Main drivers of land value in Karachi

s.No	Elements/ Critical components	frequency	Valid percent
1	Political stability	42	95.45
2	Ethnic composition	6	13.63
3	Security	32	72.72

4	Land mafia	8	18.18
5	Layout planning	40	90.90

Figure: 2

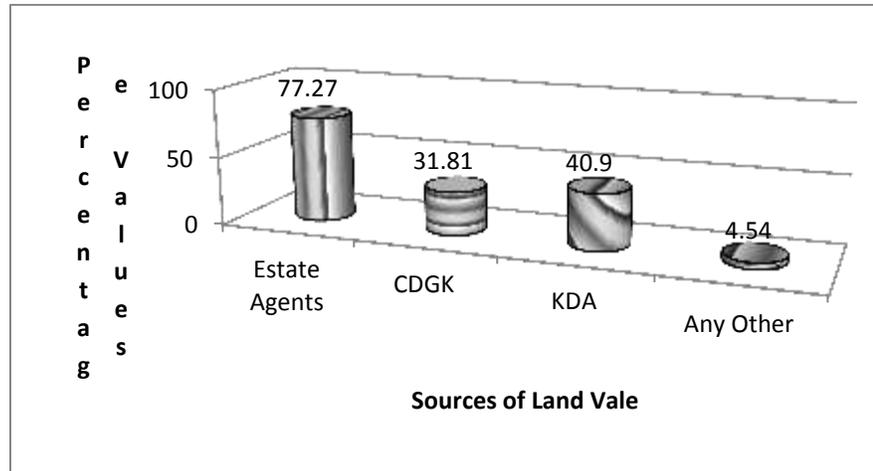


According to the survey, Table 3 shows that most of the respondents believed that the primary and immediate sources of land values are the estate agencies/estate agents. They usually record the good amount of information and are mostly specialized in land value and selling properties. More over these Estate agents provide a quick response of land values while CDGK and other sources have been considered secondary in this regard.

Table-3
Sources of land values in Karachi

S.No	Elements/ Critical components	frequency	Valid percent
1	Estate agents	34	77.27
2	CDGK	14	31.81
3	KDA	18	40.90
4	Any other	2	4.54

Figure: 3

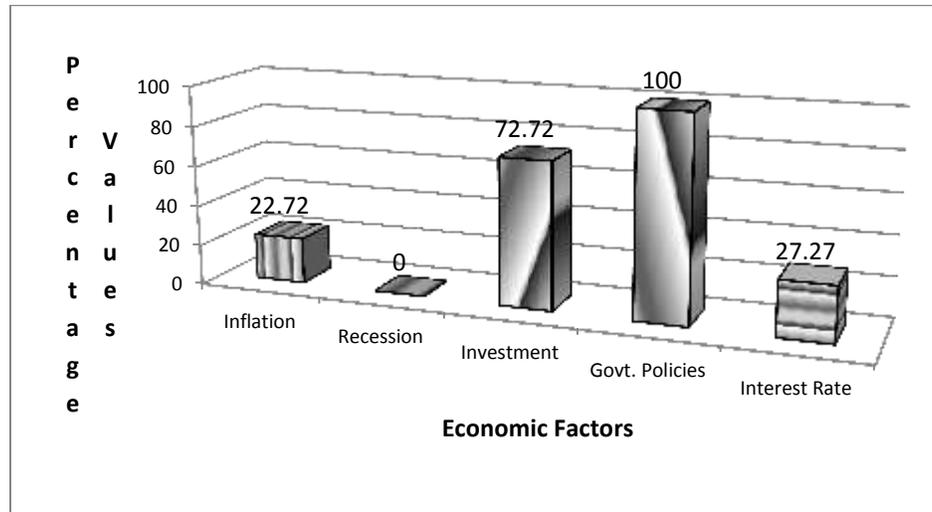


Furthermore, turning towards major economic factors (table 4) that directly influence the value of property in Karachi, we got to know that mostly respondents believe that government policies play a very significant role in determining the land values. For if governments take interest in this field, the real estate business would reach its peak overnight. Simultaneously, respondents were found silent or less responsive over other factors such as inflation, recession and interest rate. But many respondents still believed that investment by the entrepreneur is very important factor. If builders community or investors are interested in investing their capital in land instead of investing in dollars or gold it will also add high rated value in lands.

Table-4
Major economic factors influencing the value of property in Karachi

S.No	Elements/ Critical components	frequency	Valid percent
1	Inflation	10	22.72
2	Recession	0	0
3	Investment	32	72.72
4	Government policies	44	100
5	Interest rate	12	27.27

Figure: 4



The symmetry of table 5 shows that marked changes mostly came in the residential area in term of growth in the land values of the different areas of Karachi city. The commercial areas and developed areas of the city also follow the significant after the residential areas of land value changes. However, industrial and community-based areas bear the equivalent weightage in the land values changes followed by the factor antecedently discussed. Whereas, less changes were observed in the remote areas of the city and no responses were obtained for the mixed population areas in Karachi.

Table-5

Areas of Karachi where marked changes in the value of land have taken place in the last few years

S.No	Elements/Critical components	frequency	Valid percent
1	Commercial areas	26	59.09
2	Residential areas	28	63.63
3	Industrial areas	22	50
4	Remote areas	16	36.36
5	Developed areas	24	54.54
6	Underdeveloped areas	8	18.18
7	Community based areas	22	50
8	Mixed population areas	0	0

In the field of selected environmental factors the prices of lands in Karachi city bear significant turn in determining the land values. Land values mostly depend upon the environment, surrounding atmosphere, provision of facilities, basic infrastructure, and to be at distance with the slum areas.

The unplanned development and poor services lead to the serious environmental degradation.

Majority of the purchasers of the land in Karachi give priority to those lands which are west-open and have the sun exposure almost. Undoubtedly, pollution factor is not less important in determining the land values. However, sun exposure and pollution elements are usually more valuable in the purchase and the sell of residential lands as compare to the other categories of lands.

Table-6

Environmental factors affecting price of land in Karachi

S.No	Elements/Critical components	frequency	Valid percent
1	Pollution	10	22.72
2	Ventilation	4	9.09
3	Congestion	0	0
4	Sun exposure	20	45.45

The table 7 shows the peak time of the real estate business in Karachi city. Accordingly, we got to know that 96 percent of the real estate agents believed that the peak time for the real estate business was 2000's. In the era of 90's the democratic government took some measures to expand capital maximization through different areas of economic interest such as lands, highways, motorways. So investment increased even in the land value. But after the nuclear explosions by India, Pakistan government was under pressure to conduct nuclear explosions in the reaction of Indian nuclear experiments, it invited high political, social, economic and military pressure from the international

community over Pakistan. Nevertheless Pakistan conducted nuclear detonations in reaction which directly and indirectly resulted in imposition of economic sanctions and stopping all moral, social and economic support for Pakistan in different areas of interest and infrastructure. In this state of emergency all the areas of interest faced high decline and simultaneously lands in Pakistan in general and Karachi in particular lost its significance, land value were degenerated and devalued. But after the incident of 9/11 land values suddenly exploded to higher rates and prices due to increase in Remittances because the interest of Pakistanis living overseas was shattered in west n Europe so they started investing in their home country. This has been shown by the data that the peak time for real estate business was 2000s. Specifically years from 2003 to 2007 were the best of all times in the fortune history of real estate business in Pakistan in general and Karachi city in particular.

Table-7

Peak time for real estate business in Karachi

S. No	Elements/Critical components	Frequency	Valid percent
1	1970s	0	0
2	1980s	0	0
3	1990s	2	4.54
4	2000s	40	95.45

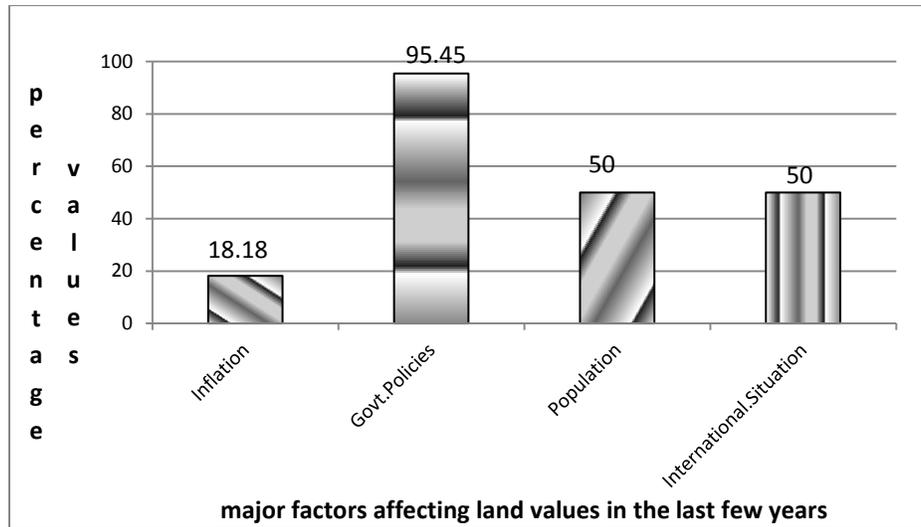
In this research model, the table 8 (Figure 5) captures the causes of the increase as well as decrease in the land prices in the last few years. Mostly estate agents, according to this survey, declared that government intervention through concrete policies play a vital role in the development of real estate business. If government takes good measures in this field of business, than major business functionaries come to invest capital in the land business of the city. However, Karachi city is the hub of economic activity, it expands day by day in terms of new societies are established. And business exposure of the city attracts people to migrate from other areas of Pakistan; therefore, population growth becomes the gigantic challenge for the administration of the city by changing rental and market values of the lands. Simultaneously, international situation is one of the determining forces beyond all this business.

Table-8

Causes of increase/decrease in the Land prices in the last few years in Karachi

S. No	Elements/Critical components	frequency	Valid percent
1	Inflation	8	18.18
2	Government policies	42	95.45
3	Population growth	22	50
4	International situation	18	40.90

Figure: 5



The provision of the facilities and utilities such as electricity, Gas, Water supply and drainage system are supposed to be driving force beyond increasing the worth of lands.

Table-9

Services connected to the property largely affecting its value

S. No	Elements/Critical components	frequency	Valid percent
1	Electricity	44	100
2	Gas	44	100
3	Water mains/Private water supply	44	100
4	Drainage to public sewer	44	100
5	Telecommunication	2	4.54
6	Cable TV/ satellite	2	4.54

According to the real estate agents, now a day's law and order situation is the emergent problem of the city. For the reason, people are afraid of future of the city due to deterioration of everyday life in the city. Specifically target killings, religious factionalism, racialism, dacoities, robberies and above all land mafias have crippled the economic activities of the city. The root cause of the city's falling in the deteriorated law and order situation is the absence of government, administration, and law-enforcing agencies that have failed absolutely to bring about any durable solution to the city. That's why people avoid economic activities.

Table-10

Law and order situation as one of the major determinants of land price variation in Karachi

S. No	Elements/Critical components	frequency	Valid percent
1	Yes	38	86.36
2	No	0	0
3	Information not provided	6	13.63

Conclusion

In the presence of the current state of affairs and deteriorating situation in Pakistan the problem of determining and estimating the economic worth of the factors that affect the land value is not a simple task. Due to the uncertain political conditions of Karachi city, the City has become a deeply ingrained and volatile political, sectarian and religious landscape that has in the past resulted in social instability creating a difficult atmosphere in which to plan and execute development programs. The socio-economic and ecological factors are hugely responsible for determining the land values. The factors we identified accordingly through our research include surrounding atmosphere, environment, economy, political stability; layout planning, government policies, investment, provision and availability of services are main drivers of the determining land values. Above all, it has been keenly observed that law and order situation matters a lot in Karachi city. It is the everyday panic of the social problems for people of the city. Real estate and the land market in Karachi faces various challenges that directly afflict the efficiency of current development of the city at the grass root level. Following this it is need of the time to engage oneself in a very useful consideration of the problems around the failure of the urban land market in order to develop mechanism through which investors are encouraged in this field of capital maximization and economic development of the city.

It has been observed that government planning, along with the responsibilities of the authorities such as CDGK, KDA etc. directly reining the issues of city's development, their seriousness. In the last few years, government policies and encouraged-investment have largely changed the land values specially those of residential areas. Due lack of government policies, law and order situation, political instability are equally responsible for the decline of the real estate mechanism which must be addressed on the prior grounds.

Government must take initiative for diagramming the new better policies for the layout planning and the real estate business. Secondly, government must bring the peace and political stability to the city. Thirdly, In order to cripple the intrusion of land mafia, government must come forwards to discourage these counterproductive activities by implying all its power over it. Federal as well as provincial governments should coordinate at all possible levels to bring stability, peace and security to the city of lights once doomed.