



## THE IMPACT OF LAND USE ON SPATIAL VARIATIONS OF BEGGING IN DISTRICT LAHORE\_PAKISTAN

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### ABSTRACT

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#### Keywords

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Begging has seen more critical social issue in most urban centers of developing states. The present study explores the relationship between begging and land use in District Lahore\_Pakistan. This study is based both primary as well as secondary data. To determine the spatial variations of begging, well-developed questionnaires were designed to get relevant information from randomly selected beggars. The study which used z-score to compare the concentration of begging in the study area verified that the occurrence of begging is a function of land use activities. It recommends that more research works should be done on the problem of begging to observe more relationships between begging, land uses and other social issues such as urbanization, socio-economic background, poverty and culture.

**Contribution/Originality:** This study used a new technique of GIS hot spot analysis through which different hot spots and cold spots of beggars were explored. This study is one of very few studies which have investigated and verified a relationship between begging and different land use.

### 1. INTRODUCTION

Begging is defined as an action of preventing people on the roads or streets to appeal for help in the form of money or food. Begging is a universal and ancient urban phenomenon which is most widespread in developing countries of the world. It has been severe social problem challenging several urban areas across the world. The condition becomes worse when it challenges urban centers of less developed countries (Jabir, 2013).

Land use has supported very much too geographical sciences and urban planning. There are various prominent theories of land use, which are being employed as a connection between begging and land use. Concentric Zone theory was proposed by Burgess in 1925, Sector theory by Hoyt in 1939 and Multiple Nuclei theory by Harris and Ullman (1945). First theory was concentric zone which was used to discover the spatial design at urban level. This theory shows as city develops, it spreads around Central Business District (CBD). There are different sectors around the CBD that have different types of land use displaying the development of the urban area over time (David and Jelili, 2010).

By creating the relationship between begging and land uses, Jelili (2006) examines that the concentric form of occurrence of begging follows the Burgess Concentric theory. High prevalence of begging is found in the city

centre and the low prevalence of begging is in the outer parts. Sector theory of urban land use was proposed by Hoyt in 1939. This theory explores the impact of transport axis in the well-defined district which often creates the block shaped sectors. Hoyt (1939) observes that various zones develop outside from the city center along railroads, highways and other transport routes. Incidence of begging also follows this land use pattern. High occurrence of beggary is found in cities along major transport routes (Fawole *et al.*, 2010). Beggars are tremendously noticeable in commercial centers, public places and residential places (Osagbemi, 2001) and lower still on campuses and inside buses (Jelili, 2006).

Multiple nuclei theory was presented by Harris and Ullman (1945) which has several nucleuses. In their opinions, all urban expansions do not spread out from a Central Business District. Rather, there may have several centers of growth in an urban area, in which each displays a definite urban need or movement. Begging activities are focused around several nuclei rather than a single core. Thus, beggars are not only found in CBD but are also found in other centers focused with human activities such as religious centers, commercial centers, educational centers and major transportation routes etc (Fawole *et al.*, 2010).

The idea of land use signifies the use to which the land is fixed. There are different types of land use such as commercial, religious, transportation, educational, residential, and agricultural and so on. According to Rodriguez (2009) there are two elements of urban land use; the nature of land use and the amount of spatial accumulation. The former links with those activities that are happening at a certain spatial unit, the latter shows their intensity and concentration. For example, there is a prominent level of spatial accumulation and consequent land uses in central areas, while outlying areas have minor level of accumulations. Land use can be formal or functional. Formal land use is concerned descriptive in nature while functional land use is concerned with economic nature of activities such as productive, consumption, residence and transport (Rodriguez, 2009). Begging has been in presence since ancient. Religious scripts exposed the presence of begging in the early years of creation. Begging is a social dilemma having a challenge on urban planners (Rugoho and Siziba, 2014). In 2004, the International Labor Organization (ILO) carried out a research on beggars in Pakistan which shows that begging is basically an urban phenomenon, with respect to the productivity of begging. The ILO also highlighted the very key aspect of combination begging, in which people involve in begging with several financial and large sum of income producing activities, approving the relations between begging and other criminal activities such as drug use and sex work (International Labour Organization, 2004).

Beggary in Pakistan has concentrated on economic and religious trends that enabled it as a lucrative industry. In many urban areas of Pakistan, poverty and social changes have resulted by urbanization this lead to more serious social issues, in which begging is the extremely hazardous and a visible one (Azam, 2011). Poverty, unemployment and other financial problems have increased a number of street children in Pakistan. In 2010, more than twenty (20) million people in Pakistan were badly affected due to flood, half of them were children. These flood affected people moved to the urban areas, majority of them were still homeless. Due to the deficiency of basic needs such as food, shelter, water, education and health facilities, they were forced to abuse and sexually misused in various activities including begging, prostitution and bonded labor (SPARC, 2012).

The rapid rate of urban population growth and economic, social, physical, cultural and rapid rate of migration due to uncertainty and clashes produced numerous social problems on the urban atmosphere. Such problems generated due to the population explosion, such as fall of residential environment, social problems and rapid increase in poverty led people into the begging (Hasan, 2011). Spatially beggars gather in those areas, where people gather in a large number at a crowd hour, where the probability to achieve something is greater and their privacy is protected (Matei *et al.*, 2013).

Rachayl (2009) observed the income of beggars in Pakistan. His report shows that there are fake beggars in streets of Pakistan. He also showed in his report that beggars pretending to be diseased, physically handicapped, blind, injured and hurt are fraud; in fact they are professional and changing into a mafia (Rachayl, 2009).

## 2. STUDY AREA

This research is carried out in district Lahore, which is a Provincial Capital of Punjab and 2<sup>nd</sup> largest city of Pakistan. It has expanded over an area of 1772 sq. km. It has historical reputation and traditionally rich city. Lahore is the city of buildings, tombs, gardens, poets, artists and mosques. It is also renowned as educational city of Pakistan due to the prominent and having large number of educational institutions in the city, like Punjab University, GC University and FC University etc.

The city is situated to the north eastern part of country. Geographically, lie between 31°15'-31°45' North latitude and 74°01'-74°39' East longitude. It is bounded by district Sheikhpura to the north and west. Indian district of Amritsar is to its east and Kasur district to its south. Its total area is 1772 sq.km. River Ravi flows from the northern side of Lahore (District Census Report of Lahore, 1998).

According to the census of 1998 total population of Lahore was 5.14 million and currently it is estimated to be about 10 million with gender ratio of 111 males per 100 females. It is expected to cross 11.25 million by 2020. Its 82.4% population lives in urban areas. Its population density was approximately 5207 persons per square kilometers. In 1998, it was 3566 persons per square kilometers (Mazhar and Jammal, 2009).

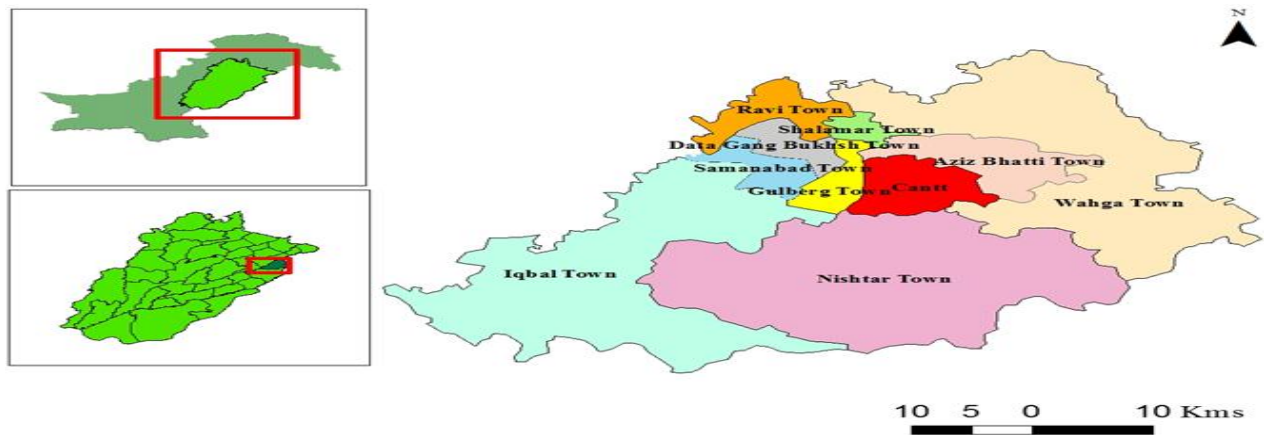


Fig-1. Study Area

(Khan, 2017)

## 3. METHODOLOGY

### 3.1. Sampling Design

To improve the validity and generalization of this study, 150 beggars were taken as a sample. Male, female and children were included in sample design. As beggars keep on moving from one place to another, therefore random sampling method was adopted.

### 3.2. Data Collection

This study is based on both primary as well as secondary data. All the nine towns of Lahore were selected for this study. Primary data were collected from beggars by the researcher through field survey in district Lahore. A well-structured questionnaire was prepared for this purpose. Secondary data were gathered from different secondary sources of relevant textbooks, journals, district census reports, newspapers, previous thesis, and internet.

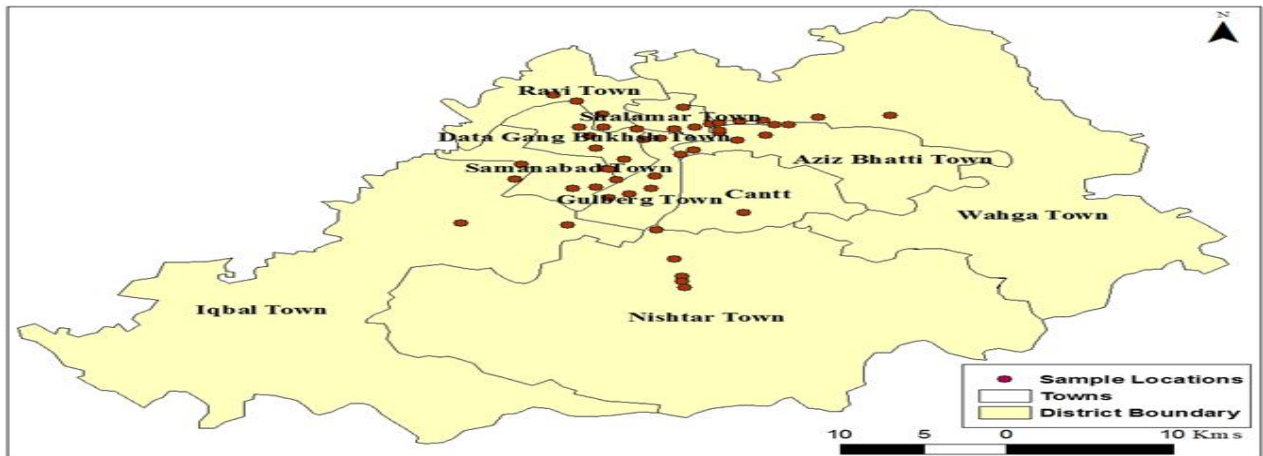


Fig-2. Sample Locations

(Khan, 2017)

### 3.3. Data Analysis

Data collected through questionnaires were entered into SPSS after necessary checking. Different statistical techniques were applied to analyze it. Different tables were created to explore the relationship among different variables. To achieve frequency and percentages of coded responses, descriptive statistics was applied. Different maps were designed in Arc GIS. Hot spot technique was applied to find the hot spots and cold spots of beggars at different sample locations in the study area. Z-score technique was applied to find out the occurrence of begging on different land uses and a map of land use locations of beggars was also created to show the presence of begging in the study area.

## 4. RESULTS AND DISCUSSION

Table 1 shows total family income of beggars with different categories. Total family income of six (6) beggars was among Rs.5, 001-10,000, income of thirty five (35) beggars was between Rs.10, 001-15,000, while the income of a large no. of beggars (109) was above Rs.15, 000.

Table-1. Total Family Income of Beggars

Total Family Income	Frequency
Rs. 5000-10,000	6
Rs. 10,001-15,000	35
Above Rs. 15,000	109
Total	150

(Field Survey, 2017)

Table-2. Begging Time of Beggars

Time	Frequency
6:00am-9:00am	13
9:01am-12:00pm	54
12:01pm-3:00pm	16
3:01pm-6:00pm	21
After 6:00pm	18
8:00am-5:00pm	28
Total	150

(Field Survey, 2017)

Table 2 gives the idea of begging time of beggars. Begging time of thirteen (13) beggars was from 6:00am-9:00am, fifty four (54) was from 9:01am-12:00pm, sixteen (16) was from 12:01pm-3:00pm, twenty one (21) from 3:01pm-6:00pm, eighteen (18) from after 6:00pm and twenty eight (28) from 8:00am-5:00pm.

Table 3 indicates most earning season of beggars in the study area. Ramadan was the most earning season for forty two (42) beggars, Eid for four (4) beggars, ordinary days for thirty seven (37) beggars and undecided for sixty seven (67) beggars.

Table-3. Most Earning Season of Beggars

Earning Season	Frequency
Ramadan	42
Eid	4
Ordinary Days	37
Undecided	67
Total	150

(Field Survey, 2017)

Table-4 (a). Z-Score

	No.	Mean	Std. Deviation
Score	5	30.0000	33.28663

(Field Survey, 2017)

Table-4 (b). Occurrence of Begging at Different Land Uses

Begging Areas	Frequency	Z-score
Commercial Centers	40	0.30
Transport Routes	84	1.62
Religious Places	16	-0.42
Residential Areas	8	-0.66
Health Centers	2	-0.84

(Field Survey, 2017)

Occurrence of begging at different land uses was discovered with the help of Z-score which provided different positive and negative scores. The mean value of Z-score is 30 and standard deviation is 33.28663. Frequencies greater than mean value have positive Z-score while those less than mean value have negative Z-score.

Positive Z-Scores display high occurrence of begging while negative Z-scores show low occurrence of begging in the study area. High occurrence of begging was found in commercial centers and transport routes while low occurrence of begging was found in religious places, residential areas and health centers. It is clear from analysis that begging is activity of land uses. Commercial centers and transport routes were most favourable land uses witnessed in this study which attracted large no. of beggars.

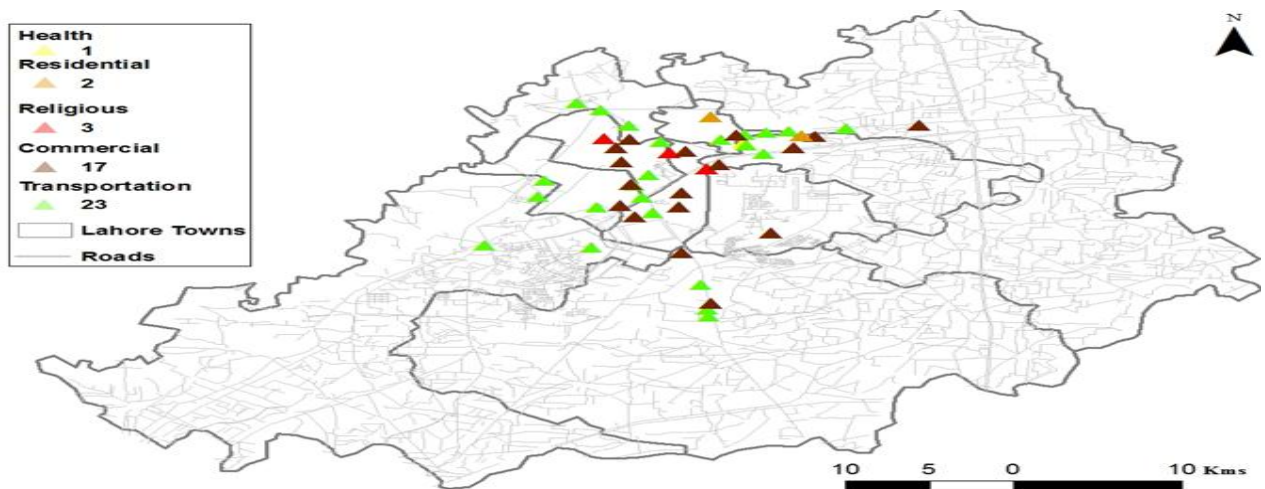


Fig-3. Land Use Locations of Beggars

(Khan, 2017)



Figure 3 gives the idea of different land use locations of beggars in Lahore. These locations were shown in triangles of different colours. Yellow triangles show beggars at health locations. They were found only at Shalimar hospital. Orange triangles show beggars found at residential centers of the study area. They were found at China Scheme and Shalimar Housing Scheme Salamatpura. Red triangles indicate beggars found at religious centers in the study area. They were found at shrines of Data Gunj Bukhsh, Bibi Pak Damman and Hazrat Mian Mir.

Brown triangles indicate beggars found at commercial centers in the study area. They were found at seventeen (17) locations. They were found to be located at Shah Alam Market, Baghban Pura Bazar, Salamatpura Bazar, Barkat Market, Batapur Bazar, Liberty Market, Garhi Shahu Bazar, Fateh Garh Main Bazar, Youhanabad Bazar, Main Bazar Dharam Pura, Faisal Bazar Qenchi, Main Bazar Mozang, New Anarkali Bazar, 119 G Block DHA, Phase 1, Ayubia Market Muslim Town, Main Market Gulberg and Ichra Bazar.

Green triangles represent beggars found at transportation routes in the study area. They were found to be located at Bhekaywal Morr, Niazi Bus Service, Liaquat Chowk Sabza Zar, Chowk Thokar Niaz Baig, Allah Hoo Chowk Johar Town, Shahdara Metro Bus Station, Batti Chowk Bus Stop, Lorry Adda, Shalimar Chowk, G.T Road Singhpura Stop, Daroghewala Chowk, Akhari Mint Stop, Shalimar Link Road, Attari Saroba Metro Bus Station, Lal Pul Stop Canal Road, Dullu Khurd, Metro Bus Station, Gajjumata Metro Bus Station, Railway Station, Shadman Chowk, Kalma Chowk, Muslim Town Morr and Ichra Metro Bus Station.

Figure 4 gives the idea of hot spot of beggars at different sample locations. A hot spot analysis technique was applied to find out the hot spot of beggars at different sample locations of the study area. The resulting Giz score shows places with either high or low values cluster spatially. A positive value means a hot spot is encompassed within the study area. Similarly, negative value for a Giz score means a cold spot is encompassed within the study area.

Table of Giz score shows corresponding color for this study. Orange and red colours signify the highest Giz scores or hot spots which were found to be located in Shahdara Metro Bus Station, Batti Chowk, Lorry Adda, Shah Alam Market, New Anarkali Bazar and Chowk Thokar Niaz Baig.

Pink and green colours signify cold spots in the study area. They were found to be located at Bhekaywal Morr, Niazi Adda, Sabza Zar Liaquat Chowk, Allah Hoo Chowk Johar Town, Shalimar Chowk, China Scheme, Baghban Pura Bazar, G.T Road Singh Pura Stop, UET,

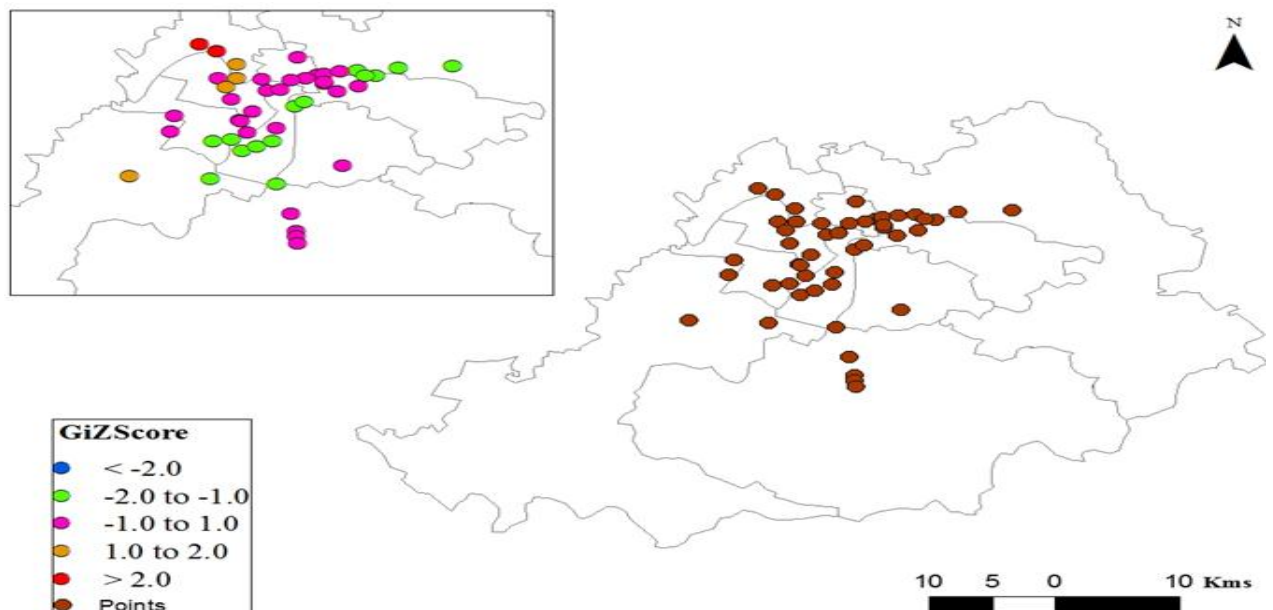


Fig-4. Hot Spot of Beggars at Different Sample Locations

(Khan, 2017)

Daroghewala Chowk, Akhari Mint Stop, New Shalimar Housing Scheme, Salamat Pura Bazar, Bata Pur Bazar, Quaid-e-Azam Interchange, Main Market Gulberg, Barkat Market, Bibi Pak Daaman, Main Bazar Garhi Shahu, Liberty Market, Fateh Garh Main Bazar, Shalimar Link Road, Shalimar Hospital, Darbar Mian Mir, Main Bazar Dharam Pura, Lal Pul Stop Canal Road, Attari Saroba Metro Station, Bazar Youhanabad, Gajjumata Metro Bus Station, Dullu Khurd Metro Bus Station, Main Qenchi Bazar, Data Darbar, Railway Station, Mozang Main Bazar, Shadman Chowk, Ichra Metro Bus Station, Ichra Bazar, Ayubia Market, Kalma Chowk, Muslim Town Morr and DHA, Phase 1, 119 G Block.

## 5. CONCLUSION AND RECOMMENDATIONS

This study has explored the impact of urban land use on spatial variations of begging in Lahore. It has verified a link between urban land use and begging activities. This study has also confirmed that commercial centers and transport routes are large producers of beggars. Finally, it has detected that despite the threat caused by begging to socio-economic development and environment of Lahore, much research work has not been focused to the problem of begging as it concerns land use.

On the basis of results above, it has suggested that urban developers should readdress their activities and emphasis on the development control exercise on land use activities so that these places may become less eye-catching for beggars. More attention should be given to the problem of begging to observe more relationships between land uses and begging and other issues such as socio-economic background, urbanization, region and culture.

Begging events may also be lessened by reducing the rural urban migration and creating different income producing activities for poor people and by developing an old age security system so that the incidence of begging may decline.

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