ASSESSING THE SPATIAL VARIATION OF URBAN QUALITY OF LIFE IN BASRAH GOVERNATE, SOUTH OF IRAQ

Hanan Rasooli [1,2*] and Sedigheh Lotfi [1]

[1]Department of Geography and Urban Planning, Faculty of Humanities and Social Sciences, University of Mazandaran, Babolsar, Iran

[2]Department of Geography, College of Education for Women, University of Basrah, Basrah, Iraq

ABSTRACT

The Quality of life (QoL) is the degree to which a person's well-being in his economic and social life, which is what other concepts are development, progress, improvement, and satisfying needs. This concept measures the level of satisfaction with the most critical aspects of an individual's life. It may mean access to services, opportunities, job education and health, sustainable environment, social cohesion, safety, and security. This research aims to measure the variation in the quality of urban life and the degree of people's satisfaction with their lives in major cities of Basra Governorate (Basrah, Abu Al-Khaseeb, Al-Faw, Al-Midaina, Al-Qurna, Shatt Al-Arab, and Al-Zubair). The research adopted the method of the field study, through a questionnaire form that was distributed to a sample of the families of these cities, and the form included (3) indicators and (15) variables, and the answers quantitative weights in an attempt to construct a quantitative measure for the subject of the research. The results showed that the population's satisfaction about various aspects of their urban life, ranging from very weak to weak.

Key Words: QoL assessment, urban service, spatial variation, Basra.

1. INTRODUCTION

The quality of life was defined as Individuals' feelings of fulfillment and happiness, as well as their ability to meet their needs through the purchase of the environment and the quality of services provided to them in the health, social, educational, and psychological fields, as well as their ability to manage their time effectively and reap the benefits of this.

Zaid and Popoola (2010) defined QoL as "The quality of life of a person is what he/she perceives it to be" Quality of life (QoL) has been researched as a multidisciplinary issue in geography, criminology, urban planning, and sociology (Michalos and Zumbo 2000). However, because the idea of QoL is diverse and weakly defined, literature investigations have indicated that no universal framework for assessing and characterizing QoL and human well-being currently exists (Leidelmijer et al., 2002). Therefore, for this study, we will use Foo's (2000) definition of QoL, which defines the urban quality of life as an individual's total happiness with life.

QoL can be defined as an individual's or society's general well-being and happiness. For people who reside in various parts of the same city, there may be different levels of QoL. As a result, it is worthwhile to explore which city sections have a poor quality of life (QoL) without adequate infrastructure and services. Thus, urban planners and policymakers can take further actions to improve the quality of life in such regions. Furthermore, people's needs have become increasingly

diverse in recent years. Therefore, individuals living in the same district of a city may have various degrees of QoL due to their varying needs for facilities and services.

The principal purpose of objective urban QoL is to measure trends over time, achieve objective criteria (Archibugi, 2001; Cicerchia, 1996; Perz, 2000), or even rank cities/places by weighting the resulting estimations of urban environment variables. On the other hand, the weighting techniques have been heavily challenged because a different set of weights might significantly different a city's ranking (Landis & Sawicki, 1988).

The World Health Organization (1994) defined the quality of life as the individual's the way he perceives his current living circumstances in the context of the culture and value of the systems in the community in which he lives, as well as the relationship between his perceptions of these things and his objectives, aspirations, and level of interest in them.

Others see that the concept of the quality of life is closely related to two basic concepts, namely, well-being and enjoyment, as well as other concepts such as development, progress, improvement, and satisfaction of needs, and quality of life is a continuous and continuous state of integration between building the human being with health and safety standards on the physical and emotional levels and developing the place with civilized goals. The concept of enjoying life with its material and moral elements was magnified. Some of them linked the concept of quality of life with the idea of (humanization) that is, filling the physical urban space with life, provided that this life is of the quality and acceptable to people and contains them all, and that the human city encourages cultural pluralism and does not differentiate between its residents and that the place is open to people with special needs.

The quality of life measures an individual's or society's well-being across multiple dimensions or domains (Sirgy et al. 2006). There are two widely accepted approaches to assessing the quality of life: objective quality of life assessment, which focuses on people's material circumstances (Smith 1973; Zolnik 2004; Higgins and Campanera 2011; Martinez 2018); and subjective quality of life assessment, which uses surveys to elicit information about an individual's life experience and perception of happiness (Campbell et al. 1976; Diener 2000; Moore et al. 2006; Rezvani et al. 2013).

Since the term refers to human life, the dichotomous category of QoL can be quantified subjectively or objectively. Subjective quality of life can be assessed by examining 'the extent to which an individual's life is perceived to conform to some implicit internal standard or referent' (Evans, Pellizzari, Culbert, & Metzen, 1993) or by examining the tendencies and geographical imaginations of urban residents via questionnaires or interviews (Lofti & Koohsari, 2009). By contrast, objective QoL is frequently measured using quantitative indicators. According to some academics, such as Lofti and Koohsari (2009), the two techniques are not always equivalent, while others merge the two approaches and accept social indicators based on subjective assessments as well' (Dissart & Deller, 2000). According to detailed research, cities with a high quality of life are more likely to attract creative classes and high-tech businesses, critical for urban expansion to continue (Rogerson 1999; Florida 2014). Numerous municipal governments have also incorporated quality of life into their urban development practices as a critical component of city marketing (Hall 1995).

The research assesses QoL using three indicators across many dimensions of life to identify places with poor QoL, which will aid in poverty alleviation decision-making. Policymakers are interested in determining the most effective means of improving individuals' lives. The findings of this study are likely to assist city planners in comprehending and prioritizing the community's challenges.

As defined in this study, quality of life (QoL) is defined as the aggregated perceived values of urban services provided within a city. Different criteria were established in earlier QoL research based on data availability, the research objectives, the methodology employed, and the spatial disaggregation level investigated. This study will discuss three fundamental urban services: education services, shopping services, and healthcare services (or medical care). The value of each service is assessed by the number of possible opportunities that each facility makes available to its customers. In recent years, the idea of Quality of life (QoL) has gained widespread acceptance throughout the world. The concept, on the other hand, tends to be multidimensional and loosely described. Studies have developed a framework for analyzing and characterizing quality of life. It has been discovered that there is no such thing as universal human well-being at this time (Leidelmijer et al. 2002).

The purpose of this project is to build a thorough evaluation approach for quantifying and showing urban QoL concerning the features of certain groups. A total of 350 questionnaires were distributed, representing a cross-section of households in the study area. This research employs a method for determining the weights. The approach of equal weights is used to define three first-level evaluation indictor, with each indictor receiving an equal weight of 1/3. This is founded on the premise that each dimension of quality of life is inextricably linked to and constrained by the others (Huggins 2000). The city should meet individual needs to accomplish integrated human development. Related research has established the validity and utility of aggregating indicators (Huggins 2000; Savageau 2007).

The research aims to determine the extent of spatial variation of urban quality of life indicators in the main cities of Basra Governorate and to measure the degree of satisfaction of the residents of these cities with their urban life.

2.MATERIALS AND METHODS

The study area is Basra Governorate. It is one of the largest Governorates in southern Iraq in which has an area of about 19,070 km², and it represents 4.4 % of the total area of Iraq, with a population of 1.327 million (2018). Basra Governorate comprises seven districts. Basra is the center of the Governorate and other districts of Basra, including Al-Qurna, Al-Zubair, Al-Midaina, Shatt Al-Arab, Abu Al-Khaseeb and Al-Faw located on the Persian Gulf. Figure 1 represents the study area.
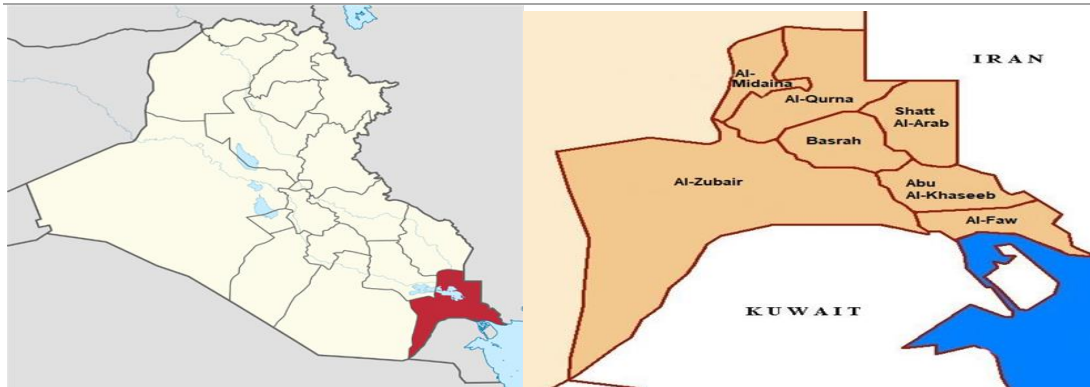
Figure 1. The location map of Basra governorate in Iraq and the districts of Basra

The study depends on the collected data of the questionnaire form distributed in summer 2021 to the people of Basra. The study relied on the descriptive approach and the statistical analytical method in the presentation and analysis of data and an attempt to build a quantitative statistical scale to measure the urban quality of life indicators and the degree of satisfaction of the residents of these districts. The study included the main districts of the governorate, which are Basra, Abu Al-Khaseeb, Al-Faw, Al-Midaina, Al-Qurna, Shatt Al-Arab, and Al-Zubair.

Urban quality of life indicators
One of the most important comprehensive global indicators for measuring the quality of urban life is (the global livability classification) issued by the Economist Intelligence, the Mercer survey, the quality of life, the Monocle magazine list, the lifestyle, the global happiness index 2017, the Organization for Economic Cooperation and Development index for quality of life and the ARRP index for quality of living. The essential indicators adopted by these references are income, stability, health care, cultural and environmental care, education, sports, infrastructure, transportation, political environment, public services, availability of media, theaters, cinemas, restaurants, recreation, security, crime, tolerance, work-life balance and equal opportunities. In addition, some measurement for the quality of life has leading indicators to measure this concept, which are (infrastructure and transportation), and (housing, urban design, and environment), (health care). Each of these leading indicators includes several sub-indicators (variables) shown in table 1.

Table 1. Indicators for Assessment of Quality of Life*

Item	Indicators	Sub-Indicators (Variables)
1-	Residential Environment Index (Residential Neighborhood)	1. Housing quality 2. Water services 3. Electricity services 4. Sewerage services 5. Sub- Street cleaning services 6. Waste disposal services

2-	Residential Neighborhood Transportation Index	7. Quality of the main streets that connect with your area of residence 8. Efficient transportation service in your area 9. Traffic regulation services 10. Ease of shopping and organizing markets
3-	Community service in the residential neighborhood Index	11. Government Education Services 12. Government health care services 13. Entertainment Services 14. Availability of green areas for picnics

[*] Source: The form is the work of the researchers.

Questionnaire form: The quality of life is the integration of the interaction between social, economic, environmental, and urban situations affecting the human life, which represents the amount of well-being and satisfaction of the human being in the surrounding environment, which refers to the improvement and development processes in society and all economic, social, physical and environmental aspects, and can be measured (Quantitative or descriptive) and its management through particular indicators and criteria that show the level of quality.

Indicators are a tool for measuring and understanding what activities and events produce variables that help give an indicator that helps the planner or decision-maker reach the right path. For example, quality of life indicators are a way to measure the vitality of the community. When these indicators are within the city, it is called urban quality of life.

Many indicators reflect the community's overall well-being, and citizens' awareness can be measured through the questionnaires that focus on, study, and analyze them and give weight to each indicator. Based on the above, a questionnaire form was constructed, and (3) indicators were selected. Each indicator comprises several variables whose total amounted to (14) variables, as shown in table 1. The collected data sample was distributed to the seven districts in Basrah Governate, as shown in Table 2 and Figure 2.

Table 2. Distribution of forms (samples) in the study area

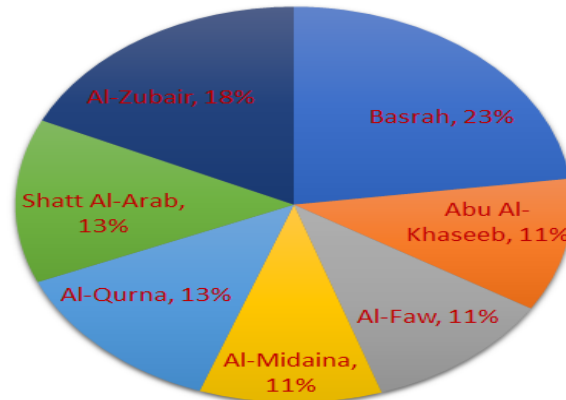| No.	district	Number of forms (samples)	Percentage of forms (%)
1	Basrah	80	22.9
2	Abu Al-Khaseeb	38	10.9
3	Al-Faw	39	11.1
4	Al-Midaina	37	10.6
5	Al-Qurna	46	13.1
6	Shatt Al-Arab	47	13.4
7	Al-Zubair	63	18
Total		350	100

Figure 2. Approximate percentages of the collected samples from different districts of Basra

Input Data and Data Collection
The essential variables for assessing quality of life (QoL) were discovered and selected based on the available literature and local experience. The indicators were divided into 14 sub-indicators, each of which was used to measure the quality of life in Basra (Table 1). Information on the parameters mentioned above was obtained through the use of a structured questionnaire in the research. First, they were asked to rate their quality of life on a five-point Likert scale (Tesfazghi, 2009), with very poor being the lowest and very good being the highest score.

3. RESULTS AND DISCUSSION
The Data processing is done according to the following steps: First: The data was entered and processed using the SPSS and EXCEL software. Second: The (average) and (total) were extracted for each variable and for each district separately, then the sum of the five districts was calculated. Third: It was mainly relied on calculating the averages (Arithmetic mean). Fourth: calculating the value of the indicator for each district separately. Example: Calculating the value of the indicator (residential environment) for the city of Basra with the following steps: 1- This indicator includes the variables (1-6) in the questionnaire form. 2- The following weights were given to the five-point Likert scale in the questionnaire form: Very good = 5, good = 4, average = 3, weak=2, and very weak =1. Then the average of these five-point Likert scales is (1+2+3+4+5)/5 is 3.
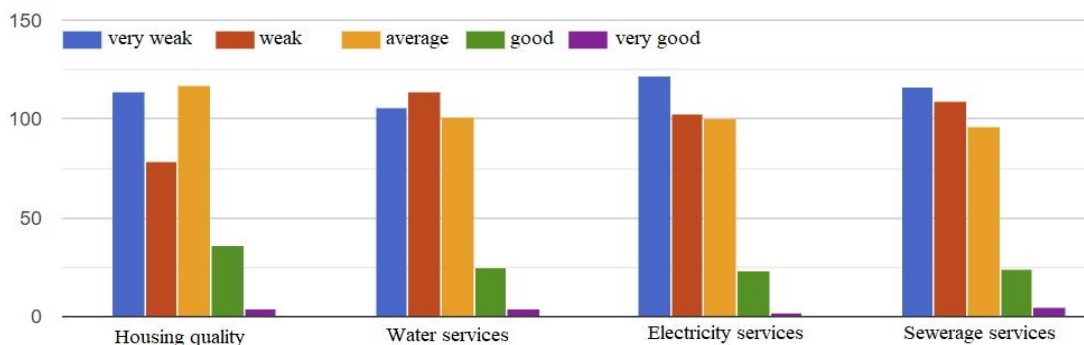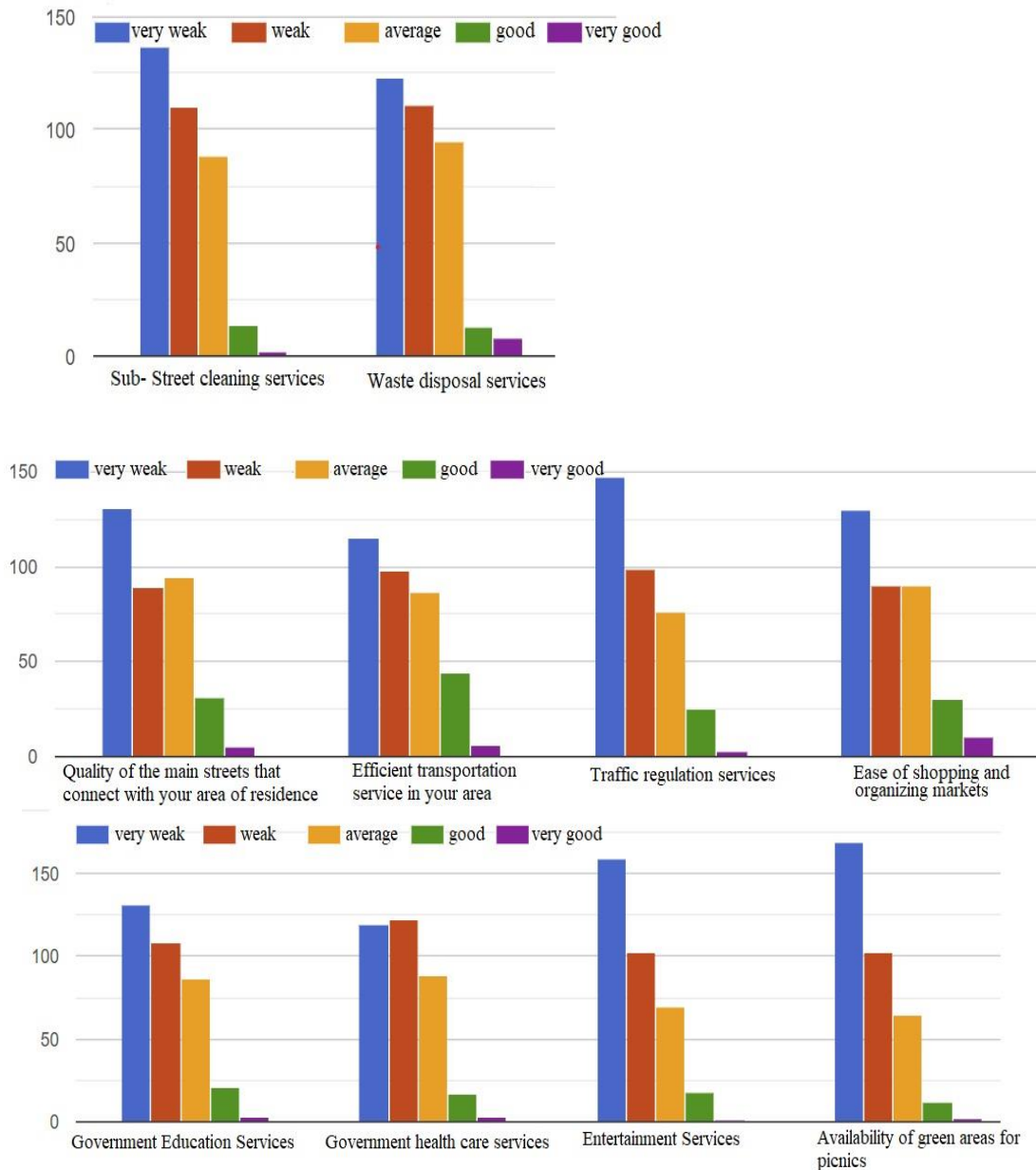
Figure 3. Results of the questionnaires from collected samples for all districts of Basra

The following table (Table 3) for the first indicator showed that the first index value is equal to the total weight for each district divided by the total outcomes for the same district. And the same procedures were adopted for the second indicator (Table 4) and the third indicator (Table 5).

Table 3. Analysis of Residential Environment Index

District	Samples	Indicator1	Outcomes1	INDEX1
Abu Al-Khaseeb	38	474	228	2.0789474
Al-Zubair	63	796	378	2.1058201
Al-Faw	39	457	234	1.9529915
Al-Qurna	46	557	276	2.0181159
Al-Midaina	37	427	222	1.9234234
Shatt Al-Arab	47	507	282	1.7978723
Basrah	80	1207	480	2.5145833

Table 4. Analysis of Residential Neighborhood Transportation Index

District	Samples	Indicator2	Outcomes2	INDEX2
Abu Al-Khaseeb	38	325	152	2.1381579
Al-Zubair	63	531	252	2.1071429
Al-Faw	39	250	156	1.6025641
Al-Qurna	46	363	184	1.9728261
Al-Midaina	37	280	148	1.8918919
Shatt Al-Arab	47	328	188	1.7446809
Basrah	80	879	320	2.746875

Table 5. Analysis of Community service in the residential neighborhood Index

District	Samples	Indicator3	Outcomes3	INDEX3
Abu Al-Khaseeb	38	275	152	1.8092105
Al-Zubair	63	514	252	2.0396825
Al-Faw	39	275	156	1.7628205
Al-Qurna	46	346	184	1.8804348
Al-Midaina	37	262	148	1.7702703
Shatt Al-Arab	47	328	188	1.7446809
Basrah	80	696	320	2.175

From Tables (3-5), the value of any indicator for any city is the sum of weights divided by the sum of observations which represent the value of the city's urban life quality index (degree of satisfaction). The value of the indicator for all the seven districts is the sum of the weights of the five divided by the sum of the observations for the seven districts as shown in Table 6.

Table 6. Analysis of the average indicators results

District	Samples	TOTAL Indictors	TOTAL outcomes	INDEX
Abu Al-Khaseeb	38	1074	532	2.018797
Al-Zubair	63	1841	882	2.0873016
Al-Faw	39	982	546	1.7985348
Al-Qurna	46	1266	644	1.9658385
Al-Midaina	37	969	518	1.8706564
Shatt Al-Arab	47	1163	658	1.7674772
Basra	80	2782	1120	2.4839286

To analysis the final results for each indicator, the following criteria were adopted
1- if the value of the index is less than 3, it means weak
2- if the value of the index is between 3-4, it means the average
3- if the value of the index is more than 4, it means high
The results show that for the first indicator: Residential Neighborhood Transportation Index: Basrah city ranked first, followed by Al-Zubair, then Abu Al-Khaseeb. The value of the indicator was (weak) for the three districts. These results indicate the low level of satisfaction of the residents of these districts with their residential environment in their neighborhoods. And for the second indictor: Residential Neighborhood Transportation Index: Basra came first, followed by the districts of Abu Al-Khaseeb and Al-Zubair, and the index value was (weak) for all of them, and all of this indicates a low level of satisfaction of the residents of these cities concerning Residential Neighborhood Transportation Index. And for the third indicator: Community service in the residential neighborhood Index: The district of Basra ranked first, followed by the districts of Al-Zubair and Al-Qurna, and the value of the indicator was (weak) for all of them.

4. CONCLUSION
This study is one of the first studies in Iraq to assess the quality of urban life. According to the findings, the majority of Basra people have a poor quality of life. The research has shown that Residential Environment, Neighborhood Transportation, and Community service in the residential neighborhood have a more significant impact on Basra governorate's quality of life. The study's findings also underlined the need for participatory planning, as persons who are being planned for are most suited to determine priority areas. It must rely on scientific research such as this one to identify the problem and prioritize the many areas of concern.
Overall, it was discovered that the indicators' values were weak in each of the seven districts studied, which indicates that residents of these districts have a low level of satisfaction with the quality of their urban life, owing to their dissatisfaction with the nature of their urban life as well as the level of various services provided to them, and a low level of comfort and luxury in their homes.
The urban quality life index (the degree of satisfaction) in the study area. The indicator values were 1.9989 (weak), which indicates that the general public of these districts are not satisfied with the quality of their urban life.

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