Urban Infill as a Tool to Activate the Quality of Life in Traditional Cities

Aml T Al Shamarti*1,2, Haitham A H Al Shammar1

1 Architectural Engineering Department, Al Nahrain University, Baghdad, Iraq
2 College of Urban Planning, Al Kufa University, Najaf street, Najaf City,

*amalt_h@yahoo.com, Iraq

Abstract. The research is based on the question of how can traditional cities cope with the demands of contemporary life? As the high efficiency of urban life in traditional cities or the so-called quality of life is the intended purpose of this paper. This goal can only be achieved by activating the health, social, economic and urban aspects of the place through prudent urban interventions in these environments. The research hypothesis confirms that urban infill projects, including deletions and additions, can improve the quality of life in these cities. Thus, the research problem summarizes the lack of studies dealing with improving the quality of life in traditional environments, which suffer from forced removal projects of some or all of the old tissue, and the difficulty of communicating with the requirements of contemporary life. The research was based on studying the phenomenon and making questionnaires for the study area of the old city of Najaf. Then, obtain conclusions that confirmed the research hypothesis and based on indicators that can be adopted to activate the quality of life in traditional cities.

Keywords: Traditional Cities, Quality of Life Dimensions, Urban Infill Projects

1. Introduction

Traditional urban neighbourhoods have a special place as a result of their historical and cultural value and a resource for the city. Therefore The development, rehabilitation and preservation of these areas is a reaction to Social, Urban , Economic changes and the rapid Technological Development. And The traditional patterns of development have left their mark on the fabric of society. Their revitalization brings new life to the region socially, physically and economically, It is an innovative use of land to meet the needs of the population and to achieve a higher Quality of Life and well-being. One of the methods of urban renewal is to use the policy of developing urban Infill, which is one of the strategies of intelligent growth. and the key to development to take into account not only the effects of change in economic terms but even the cultural, environmental and social dimensions to preserve the resources of the community, also creates safe and attractive environments, provides opportunities for work and activity to be Versatile and to restore the sense of place that is sometimes lost by rapid development.

Theoretical Framework

2. Quality of Life

The Quality of life QOL has been discussed in recent years a lot. Today, it has become a goal and value that individuals, communities, institutions and governments seek to achieve or reach in different strategies and orientations [1]. QOL is a concept that relates to individuals in terms of their interests, goals, expectations, standards, and perceptions of their place in life, within the value systems and context of the culture in which they live. It is ’a broad concept that is complexly influenced by people's physical health, mental state, level of independence, personal beliefs, social relationships, and their relationship to the prominent features of their environment’ [2]. QOL can be defined comprehensively: ’is the result
of the interaction between Social, Economic, Structural and Environmental conditions that affect human beings [3].

2.1. Dimensions of Quality of Life
The dimensions of QOL concept are studied based on subjective factors (self-dimension) and objective factors (objective dimension) or both [4]. There are those who focus on the overlaps and commonalities between them, as Figure 1.

2.1.1. Subjective Factors
That a sense of QOL is relatively, because it is related to some subjective factors: 'The positive concept of self, satisfaction with life, work, social status and happiness felt by the individual' [5]. This type of factor depends on subjective indicators: which are interested in the QOL assessment, Through responsiveness and perception of individuals, and what is achieved for them of satisfactions as well as the extent of the sense of happiness and satisfaction [4]. It represent the 'self-dimension' of QOL.

2.1.2. Objective Factors
These are factors that rely on objective indicators (directly measurable and observable) that have emerged in the last two decades and represent the interests of scientists, statisticians, international organizations and workers in the state agencies [4]. It also includes sub-dimensions: 'Cultural standards, satisfying needs and achieving physical integrity' [6]. The sense of QOL is relatively linked to objective factors: The material potential available, income, cleanliness of the environment, health, housing, employment and education [5]. It is the 'objective dimension' of QOL.

Figure 1. Dimensions of QOL (prepared by researchers).

2.2. Quality of Life in Cities
That nine key indicators that determine QOL in cities and they follow by importance as table 1. [7].

Table 1. Urban QOL indicators (Prepared by researchers).

| Urban QOL indicators                        | Objective dimension          | Subjective dimension          | Social & Cultural indicators |
|--------------------------------------------|------------------------------|-------------------------------|-----------------------------|
| Material well-being by gross               | Economic & Environmental indicators | Work                          | Social life                 |
| National product                           |                              |                                |                            |
| Health                                     |                              |                                |                            |
| Political stability and safety             |                              |                                |                            |
| Family life                                |                              |                                |                            |
| Climate and geographic location           |                              |                                |                            |
| Work                                       |                              |                                |                            |
| Political freedom                          |                              |                                |                            |
| Personal freedom (male or female)          |                              |                                |                            |
2.3. Quality of Life Constraints
Achieving QOL sometimes suffers from obstacles that threaten the urban environment as table 2. [8].

**Table 2.** Quality of Life Constraints (Prepared by researchers).

| a. Obstacles                                                                 | b. Obstacle Results                                                                 |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1. 'High population growth that does not allow adequate services': (education, health care, healthy food, adequate housing). | 1. 'The low standard of living of the population'.                                   |
| 2. 'Poor management of household, industrial waste, hospital waste, consequently the deterioration of the urban environment of the city'. | 2. Unplanned neighbourhoods, reflecting poverty and unemployment.                    |
| 3. 'Lack of control and poor treatment of sewage'.                            | 3. Deterioration of green spaces                                                   |
| 4. 'Air pollution from gases emitted by vehicles and industrial units'.       | 4. Insecurity                                                                       |
| 5. The spread of social                                                       | 5. The spread of social                                                             |
| b. Obstacle Results                                                           |                                                                                     |
| 1. 'Controlling demographic growth and upgrading public services'.            |                                                                                     |
| 2. Educating the population to preserve the Urban health.                    |                                                                                     |
| 3. 'Conservation of forests and protected green areas'.                      |                                                                                     |
| 4. Improving sanitation services.                                             |                                                                                     |
| 5. Improving the status of urban roads.                                       |                                                                                     |
| 6. 'Reducing the use of chemicals in agriculture'.                           |                                                                                     |
| 7. 'Reducing the consumption of air-polluting chemicals'.                    |                                                                                     |
| 8. Waste management, application of technologies for treatment.              |                                                                                     |
| 9. Wastewater treatment                                                       |                                                                                     |

2.4. Gauge the Ruler of Quality of life
The definition of the concept of 'Ruler of life' is: 'a means of measuring the QOL in a particular city or region, and constitutes a set of indicators divided by four basic criteria: economic, social, urban, and environmental', and each criterion has a set of indicators that give detailed knowledge of the level The QOL within the urban sphere. Its indicators can be defined by: 'A measure that provides quantitative or qualitative information that reflects the QOL in a city and at a given time, on the basis of which policies and plans are developed to improve the QOL'. And that the 'set of indicators contained by the life quality ruler and the goal of each indicator according to the four criteria' as table 3. [8][9].

**Table 3.** Basic standards of QOL (Prepared by researchers).

| Economic Standard | Social Standard | Urban Standard | Environmental standard |
|-------------------|-----------------|----------------|------------------------|
| Growth of economic activities | Enjoy good health | Facilitating transportation | Management of natural resources |
| Create positions | Lifelong education | Compatibility of land use | Improved air quality |
| Increased income | shared society and A balanced | Provision of services | Waste management |
| No unemployment | Feeling safe | Provision of adequate housing | Improve water quality |

2.5. Quality of Life Elements
QOL is known as amorphous and multi-level concept through the well-being and happiness of individuals. It was conceived on two levels: 'partial (personal, individual)' and 'holistic(objective, social)'. in light of "focusing on the concept of "Veen hoven" about viability, which seems to be more socially, we adopt the following five categories as 'elements of QOL'. And These five have close relationships with the three aspects of sustainability (Social, Economic, Environmental) as in figure 2.
For 'QOL Core Elements' is defined by three main Sectors, each with a set of indicators, as table 4. [8].

**Figure 2.** The relationship between Quality of Life elements and the three aspects of sustainability. Source: Accessibility, quality of life, and social interaction, (Doi K, Nakanishi H and Kii M, P1100, 2015)

| Social & Economic Sector                      | Urban Sector            | Environmental Sector |
|----------------------------------------------|-------------------------|----------------------|
| Population growth                           | Housing area            | Street dimensions    |
| Age structure                               | Altitude of buildings   | Street condition     |
| Family size                                 | The state of the port   | Access to transportation |
| The status of education                     | Building materials      | Supply of potable water network |
| Employment & unemployment                   | Mixed land use          | Sewage               |
| Migration                                   | Size of land rations    | Electricity network  |
|                                             | The legal nature of ownership | Educational services |
|                                             | Population density      | Security services    |
|                                             | Residential density     | Health Services      |

3. **Urban Renewal with Addition & Deletion**

The term Urban Renewal can be defined: 'Redevelopment of large areas of underdeveloped neighbourhoods in the main areas of cities' [12]. and also it is: 'The process of restoring buildings and adapting them to the requirements of contemporary life', renovating the old buildings under the influence of rapid technological and social change, it is a policy and a qualitative shift from an old stage, which is also: 'the comprehensive destruction of the old areas in a way that leads to the removal of a wide range of buildings, residential houses and allows the planning and construction of modern buildings, roads, open spaces', Therefore, it constitutes a set of social, urban, economic measures to provide a planning structure characterized by the best urban and environmental conditions for the inhabitants of the region [13]. And one of its mechanisms 'Re-Development': a' trend associated with the removal and demolition, as it represents the demolition the entire slums, areas that fall and are dilapidated and then rebuilt, in other words, a replacement for a particular area for the purpose of investment' [13]. Either 'Urban addition' can be defined by: 'it is a process of urban development, including the addition of new urban parts to the fabric the city at different levels dealing according to the relationship between the addition and the original and according to the value of the asset whether it contains historical value to be preserved and protected or cultural, ecological, functional and other values, make them vibrant by replenishing their cells and in innovative ways, leading to the development of cities'. And the urban addition depends on urban renewal, which is (preservation, rehabilitation, redevelopment) [14].
4. Urban Infill
The concept of 'Urban Infill': ‘add a new building or buildings that form a functional fabric, and are visually connected, and so that they must be harmonious in terms of height, sky line, size of mass and structural size, interface treatment, finishing materials, openings, colours and regression’[15]. And also, 'Urban Infill': is the process of filling it takes place within the urban fabric to the 'empty gaps' in it, from adding a new building or replacing a building with removal (deletion), thus trying to 'complete the physical image of the urban form' and connected new fabric to the old through architectural elements, style, skyline, Finishing materials and others, any process that represents two functions [16]:

- 'Restores the old fabric to replace it'.
- 'Tries to connect the broken tissue with spaces between the parts'.

And 'Infill Development': 'Recycling vacant or under-utilized land within cities and suburbs'. Almost every community has these types of land characteristics, ranging from 'isolated and isolated pieces to superficial car parks to abandoned shopping malls'. It is also a 'Smart growth tool that tries to fill the gaps in communities and plays an important role in community revitalization and conservation on land, by making better use of existing infrastructure, increasing the portability and safety, creating a sense of place'. And most of the Infill is residential because of market demand. Although in an existing society, it is the catalyst for further commercial development and retail development [17].

4.1. The Importance of Infill Development
A common benefit provided by the Infill process for a range of key community development issues is as table 5. [18].

| Community issues          | Prepared by researchers |
|---------------------------|-------------------------|
| Health                    | Housing                 |
| Environment               | Economic Development    |
| Transit                   | Social Equity           |
| Infrastructure            |                         |

Source : Domus Development, 2014, pp2-4

4.2. Benefits of infill development
4.2.1. Urban and economic benefits
- 'Enhances the interdependence of the urban form', it promotes high density of mixed use, enhances and respects (character, historical preservation).
- Increase the efficiency of public transport, urban planning, infrastructure, mobility, reduce the costly new structures, provide social interaction (a sense of security, belonging).
- Restore the spatial continuity of the streets, enhancing the viability of existing communities.
- Provides compatible uses, by increasing housing, improving the quality of construction.
- Preserves Environmental resources, Economic investment, social fabric, and 'reclaiming marginalized and underdeveloped areas' [19].
- Infill development may increase the value of land and property in the region.
- Can bring Environmental benefits and QOL by the distance between homes, destinations making it easier for walk, use public transport, ride a bicycle, reducing pollution.
- Development through investment can help stabilize society in districts that suffer from social problems. This 'attracts diversity in income, brings new resources, reduces poverty.'
- Infill's development responds to market preferences and demographic changes in the regions by providing a lot of housing options [20].

4.2.2. Social benefits
Development of Infill has societal benefits that can make neighbourhoods a better place to live [21]:
- 'Residential infill creates a mass of people to maintain local retail services and support'.

5
Promoting revitalization, activate of the city, leaving (few cracks, holes in the urban fabric).

Increased activity, demand for (goods, services) are boosting (economy, infrastructure).

Infill community provides physical activity. Walking and cycling improve the health.

Introduction of housing at market price brings new life (physically, socially, economically).

Mixed use means ‘no vacant streets after working hours’.

Providing security ‘new eyes on the street help increase security’.

‘brings more tax revenues and requires lower public expenditures per capita’.

4.2.3. Environmental Benefits (Improving Environmental Quality)

The literature shows: (expected positive Environmental impacts occur in Development processes)[21].

- ‘Repairs can fix current water quality problems by introducing techniques such as green surfaces to treat water that has already been operated without treatment.

- Infill enables people to ride a bike, walk or use public transport. This reduces distance, emissions of pollutants thus improving air quality.

4.2.4. Health and Infill Development

The literature of (built environment, health) focused on four Society issues to create healthy Infill [22]:

Firstly: Transport (including active transport, noise and injuries)

- It uses ‘Full Street Policies’ to improve user comfort, safety. (Development of Sidewalks, Cross-Sections, Bike lanes, Street lighting, Well-Spaced trees, Reduce vehicle speeds).

- ‘Encourage development and maintenance of pedestrian, bicycle access to public transport’.

- ‘Apply parking pricing policies, such as disassembly, to reduce congestion, car ownership’.

- ‘Develop strategies to reduce noise through project design features, (soundproof walls)’.

- ‘Focus on crime safety (in addition to car safety)’.

Second: Air quality

- ‘Site-specific analyses of pollution patterns and cumulative health effects’.

- ‘Integrating mitigation measures, adjusting the direction, design of the building, adding filtration systems, using smart transport systems to reduce congestion’.

- ‘Eliminating road obstructions that create congestion and redirect traffic’.

Third: Access to daily needs, services and amenities to promote health

- ‘Encourage the development of materials for access to healthy food, recreational spaces’.

- ‘Index and analysis of how current and past critical community resources are used’.

- ‘Identify investment opportunities that may have been overlooked previously’.

Fourthly: Quality accommodation at reasonable prices

- ‘Identify areas at risk of increased rents, values, and develop a plan to maintain housing’.

- ‘Introducing a policy, financing options that protects from displacement, creates incentives to build, affordable housing’, preventive strategies, housing strategies (tax exemptions, etc.).

- ‘Reducing construction costs by designing innovative housing’ to facilitate price volatility.

- ‘Adopting policies to protect the quality of housing (Smoking-free and moisture, regulating companies for repair services, providing legal protection to tenants)’ [22].

4.3. Barriers to infill development

‘There are many barriers affecting the development of Infill’ such as: (Physical, Social, Regulatory, Economic, Infrastructure) barriers and the scale of development’ [19]&[23].

4.4. Design principles of a successful infill development

Infill must enhance the function and design of the community. By principles as table 6.[19].

| Table 6. Design principles of a successful infill development (Prepared by researchers). |
| principles       | Types                          | The Details                                                                 |
|------------------|-------------------------------|-----------------------------------------------------------------------------|
| **Sociability**  | Diversity                     | 'Provide a wide range of housing and price to bring people' settlement can be achieved in time, space by population. |
|                  | Sense of place                | 'Gaining community cooperation and trust is crucial'.                       |
|                  | Public participation          | 'Strong political leadership is a necessary element for the development of Infill'. |
|                  | Political support & Commitment| By 'high costs of land this development will have a higher density that will increase intelligent growth'. |
| **Comfort and Image** | Compatibility | It is a personal measure. As Pattern, alignment, shape.                     |
| **Aspects**      | Plan should establish the basis (policy, objectives) | 'It should support the Infill. There are many zoning options available': hanging an existing, or creating a new area. |
|                  | Design codes                 | improve area by urban graphic design code (change guide).                   |
|                  | Identity                     | 'That the continuation of the current societal character may be a priority in the neighbourhood. |
|                  | Adaptability                 | 'Buildings should be designed to provide a diverse, flexible,                |
|                  | Public realm                 | 'Maximize open space. Intelligent growth underlines public space, while the extension underlines to the private sphere'. |
|                  | Secure environment           | 'Direct windows, entrances (provide 'eyes on the street).'.                 |
| **Uses & Activities** | Mixed use                  | 'Promoting the creation of multi-use neighbourhoods that support everyday functions and promote sustainability'. |
| **Aspects**      | Land property value          | Infill increases the economic, attracts (investors, residents).             |
| **Access & linkage aspects** | Parking               | 'by planning, design, participate, public facilities.                      |
|                  | Integration                  | 'It must be amended, because it can impede Infill projects.                 |
|                  | Walkability                  | 'It provides mobility, reduces congestion, walking.                         |
|                  | Connectivity                 | 'The work of the Infill which is not well connected to the surrounding roads and sidewalks, is poorly planned'. |

1: (Faris, 2001[23])

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**Figure 3.** The relationship between QOL & Urban Infill (Prepared by researchers)

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**Practical Framework**

5. **Study Area: Najaf Old City Centre**
The city of Najaf has historical significance because of its many heritage meanings and values, it is a holy city for its embrace of Imam Ali shrine, and the shape of the old city is: an irregular rectangle with an area of About 60 hectares, about 1000 m long and 800 m wide. Its borders are known as al-Suwr Street, which was built in the 1930s and which was demolished. It is located within the southwestern edge of Najaf, and on the edge of the high mountain overlooking the Najaf Sea from the west. To the north is wadi al-Salam Cemetery about 500 hectares, to south, south-east are residential, commercial buildings and have four zones (Al-Mashraq, Al-Buraq, Al-Hewish, Al-Amara) [24].

5.1 Development of Najaf City Center and the expansion of Imam Ali Shrine (Rauf Ansari proposal)
The proposal dealt with the development and expansion of Imam Ali shrine and the surrounding area in Najaf and linking it to the old city. It focused on the functions and character of the Old City and the Shrine. The idea of the proposal can be illustrated by the following examples [25]:

- **Examples of Figure. The following image illustrate how the format / basic idea is formatted. Note that the details are shown in figures 4, 5, and 6.**

![Figure 4](image1.png)

**Figure 4.** Shows the construction of two separate courtyards, each two floors above and below the ground and separated by a corridor to connect the ends of the old city.

![Figure 5 & Figure 6](image2.png)

**Figure 5 & Figure 6.** shows the enclosure of the old courtyard with an extension of 60 m from all sides. The ground floor opens in the basement. With the central dome removed, place two smaller domes, two beacons on both sides with a recoil back.

5.1.1 Objectives of the project
Expanding the holy threshold to accommodate the large number of visitors[25].

5.2 Urban Renewal of The City Centre of Holy Najaf (Dewan proposal)
The study area included the development of the general urban planning of the four areas of the Old City, and the expansion of the area around the Imam Ali Shrine. The idea was based on several axes, They can be illustrated through the following examples[26]:

- **Land use policy.**
- **Examples of Figure. The following image illustrate how the format / basic idea is formatted. Note that the details are shown in figures 7, 8, 9, 10 and 11.**
Building heights:
The urban landscape of the city was preserved with the dominance of the Haidari shrine. The buildings near the Haram are located at a height of "2 floors" and the second ring is "4 floors" up to the mixed use area, and the last ring (mixed use area) is "6 floors".

Land acquisitions:

Figure 7 & Figure 8. shows the policy of land use in providing space for visitors, while preserving the traditional fabric and identity. Expansion extends up to 90 m from the outer wall of shrine, and preserving the heritage buildings in it. It is then defined by a porch separator with the rest of the land uses and surrounded by commercial services extending along the main streets, alleys and towards the surrounding street. The area adjacent to Ocean Street is concentrated in mixed use (residential / commercial), with represents a transition between the traditional fabric and the orthogonal fabric of Najaf.

Figure 9. shows the Great Market, has been retained the commercial character with a proposal to rehabilitate it (fully built with the preservation of heritage buildings) with a style that reflects the traditional architecture, and linked to the square after the development to accommodate of visitors to be a distinctive gate to enter the old city from the east.

Figure 10 & Figure 11. shows the creating vital conservation areas through the preservation of religious, educational and cultural buildings (the Khan al-Shilan Building, Khorang School with the remaining part of the Old City Wall), and the creation of suitable uses for surrounding area, and green spaces to accommodate activities, and a clear axis directly connected to the field square.
The total land acquisition area in the study area was about (117,566 m²) and there are five types of acquisitions depending on the purpose.

- **Public Services Strategy:**
Because of the limited availability of land within the study area, it has been proposed to provide the required services within the Al-Jadidat area south of the Old City.

5.2.1. **Objectives of the project**
Reviving, rehabilitating and preserving the urban fabric and enhancing the religious, historical and cultural identity of the city. Developing and expanding the area around the shrine, providing adequate space for visitors, improving environmental, health, urban, social and economic realities, and emphasizing the participation of the population in development decisions. And determine the technical, structural and structural specifications in line with the heritage of (structural materials, recoil, style of facades, height of buildings, paving of walkways and squares.. etc.) for new economic and service activities within the project and within the development of existing buildings[26].

6. **Analysis Results**
- The research adopted a questionnaire form that identifies a set of special benefits of urban Infill: (Context and morphological dimension, Economic, Social, Environmental, Health and Accessibility).
- The questionnaire included information on the region, elected projects and some illustrations.
- A deliberate sample of 17 respondents from experts, architects and urban planners, mostly from inside Najaf, was selected to test their views on the importance of urban Infill projects for quality of life in traditional cities.
- The answer is in the form of an effect (very good, good, middle, weak, very weak, I don't know) each has an effect value (5,4,3,2,1,0) respectively. By multiplying the number of influences of the respondents with the value of the effect, the level of evaluation for each of the dimensions can be determined and by combining those levels can be determined the level of the final evaluation for dimensions.
- The highest value of the effect is 5 and by multiplying the value of 5 in the number of respondents (17×5) the highest value of the valuation is 85 on the basis of which it is: (value<42.5) with a Weak degree and (value>42.5) Acceptably.

7. **Project Analysis**
- The analysis of the results of the Context and Morphological Dimension shows:
The values (55.4, 56.2) for both projects (A,B), and according to the highest value of the evaluation 85 be acceptable. The highest value for (Dewan project B) is 60 in the appropriate function, then the value 59 in the Space containment achieved of both projects. The lowest value 52 in Duplicate architectural vocabulary and elements for (Ansari project A) as table 7.
- The analysis of the results of the Economic Dimensions according shows:
The values (48.8, 50.5) for both projects and is according to the evaluation acceptable, the highest value for B is 69 in the Generate attraction Zones, as recorded 61 for each of the availability of the investment climate and the Predict the intensity of use for the same project. The highest value for A was 58 in the Income from activities, the lowest value was (32, 24) in the Expecting construction costs, and (38, 23) in the Suitable land price for A,B respectively.
- The analysis of the results of Social Dimensions shows:
The values (43.4, 43) for both projects, which according to the evaluation are acceptable, so they were the highest value (63, 67) in the work and provide opportunities and the least valuable (28, 17) in political support for the two projects A,B, respectively, as table 7.
- That the analysis of the results for Environmental and Health Dimensions shows:
The value 43.2 for A which is based on the evaluation is acceptable, and the value 40.2 of project B which is poorly assessed, and the highest value for project B is 57 in Green open
spaces, while A was the highest value of 53 in Consider the design of air quality. The lowest values were (30, 24) in the Quality and durability of housing for (A,B) respectively.

- The analysis of the results of Accessibility shows:
The values (48, 59.5) for the two projects (A,B) respectively, which according to the evaluation is acceptable, where the highest value was 68 for B and 51 for A in the diversity of events and proximity, as the results showed the value of 51 in the urban interconnection for A, and the lowest value was 44 in the absorption of activities and flexibility for the same project.

**By comparing the results between the two projects:**
Project B has been characterized by recording the highest values almost in (context, morphological dimension, economic dimensions and accessibility), and equal values in the (social dimensions) of both projects, with Project A obtaining the highest value for evaluation in (environmental and health dimensions). Almost all the results by evaluation were acceptable, as table 8.

**Table 7.** Analysis of Project (Prepared by researchers).

| Context & morphological dimension | Ansari Study Proposal (A) | Dewan Study Proposal (B) |
|-----------------------------------|---------------------------|--------------------------|
| Sky Line                          | 0 1 8 12 12 15            | 0 3 2 18 16 15           |
| Duplicate architectural vocabulary and elements | 0 0 6 18 28 0          | 0 0 2 21 32 0           |
| Space containment achieved        | 0 1 6 9 28 15           | 0 2 4 9 24 20           |
| Functional suitability            | 0 2 6 12 24 10          | 0 3 2 6 24 25           |
| Finishes for facades              | 0 0 0 30 24 0           | 0 1 0 18 24 10          |
| **Total**                         | **55.4**                 | **56.2**                 |
| Economic dimensions               |                           |                          |
| Expecting construction costs.     | 0 1 0 18 8 5            | 0 1 2 9 12 0            |
| availability of the investment climate. | 0 1 4 9 36 0         | 0 1 0 15 40 5           |
| Suitable land price.              | 0 1 0 12 20 5           | 0 0 2 9 12 0            |
| Income from activities.           | 0 0 2 12 24 20          | 0 0 0 6 28 25           |
| Expect the size of economic competition. | 0 1 0 18 28 10        | 0 1 0 9 32 15           |
| Generate attraction zones.        | 0 0 0 30 20 5           | 0 1 0 6 32 30           |
| Predict the intensity of use.     | 0 1 4 18 24 5           | 0 2 2 9 28 20           |
| **Total**                         | **48.8**                 | **50.5**                 |
| Social dimensions                 |                           |                          |
| Density & absorptivity.           | 0 0 0 27 20 5           | 0 2 4 12 28 5           |
| Work and provide opportunities    | 0 0 0 15 48 0           | 0 1 2 6 28 30           |
| Coherent housing.                 | 0 3 16 3 8 5            | 0 4 4 15 12 0           |
| Security and safety.              | 0 2 2 18 20 0           | 0 3 2 9 20 5            |
| Tax returns.                      | 0 0 4 18 12 5           | 0 1 2 9 16 0            |
| diversity of land uses.           | 0 0 10 18 24 0          | 0 3 4 6 32 10           |
| Political support.                | 0 1 6 12 4 5            | 0 1 2 6 8 0             |
| Public community participation    | 0 3 8 15 8 0            | 0 4 6 3 8 20            |
| Addressing memory and heritage.   | 0 4 2 12 28 0           | 0 3 6 9 16 20           |
| **Total**                         | **43.4**                 | **43**                   |
| Environmental and health dimensions |                       |                          |
| Consider the design of water quality. | 0 0 10 15 24 0         | 0 0 8 3 28 5           |
| Consider the design of air quality. | 0 1 0 21 16 15         | 0 1 6 3 20 15           |
| Green open spaces.                | 0 2 2 30 16 0           | 0 1 4 12 20 20          |
| Consider the design for noise processing. | 0 4 4 18 12 0      | 0 2 4 15 16 5           |
| Availability of health services.  | 0 0 16 12 20 0          | 0 1 6 15 16 10          |
| Providing health conditions for restaurants. | 0 0 12 18 8 0     | 0 1 4 12 12 0           |
| Physical activity.                | 0 0 10 18 12 0          | 0 2 4 15 12 0           |
The practical study indicates the potential of urban Infill projects in traditional areas to be projects dedicated to the events of change in the urban environment and the restructuring and preservation of the cultural and heritage of the region in order to activate the areas and squares and raise the quality of life.
and achieve the well-being of the population in Marginalized and neglected areas. In marginalized and neglected areas, the close relationship between quality of life and urban Infill projects in traditional areas is evident through easy access to the basic elements of contemporary life requirements. By preserving the historical heritage and holy shrines as (Imam Ali shrine) in the old traditional areas, the city can be revitalized Socially, Economically, Culturally, Urbanly, Environmentally and to have a Sustainable, active and healthy Society characterized by mixed use, variety of events to bring Arrivals and economic competition to reduce poverty and improve Society.

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