

The Study of Social Sustainability in Urban Renewal Process (Case of Study: District 11 of Mashhad)

Ali Ghesmi Shah Galdi¹

Department of Geography, Science and Research Branch, Islamic Azad University, Tehran, Iran

Rahmatollah Farhoudi²

Department of Geography, University of Tehran

Ezatollah Ezati³

Department of Geography, Science and Research, Islamic Azad University, Tehran, Iran

Received 5 September 2016

Revised 3 March 2017

Accepted 29 March 2017

Abstract: *One of the challenges confronting cities in the developing world is Social Issues. Social problems and unfavorable neighborhood environment probably endanger the lives and property of the citizens and their future generations. This indicates that urban areas experience different levels of decay when their planning and design fail to meet changing needs. In this regard the urban renewal process are often beset with social problems such as destruction of existing social networks, expulsion of vulnerable groups and adverse impacts on living environments. These phenomena have instigated urgent need for an effective approach to urban redevelopment. This approach intends to take into account of the sustainability concept when designing the projects in order to create sustainable communities for the citizens. This paper reviews the sustainable urban design concept and identifies critical factors for enhancing social sustainability of urban renewal process. On this basis an experimental model of stability testing of the modernization projects in social dimension is evaluated in District 11, Municipality of Mashhad. In this study the questionnaire surveys to collect data from sample size of 380 and various statistical analyses such as Independent T-test, Pearson correlation, multiple regression and path analysis are used. Based on these findings, the certain design features should be incorporated for achieving social sustainability. "Satisfaction of Welfare Requirements and community feature (Sense of community, Crime and safety, Partnerships) , "Creation of Harmonious and Housing and area conditions, "Provisions Services Daily Life Operations (facilities and -Public transport)", "Form of Built environment and "Availability of Open Spaces" were believed to be the significant underlying factors for enhancing social sustainability of local urban renewal process..*

Keywords: *Social sustainability, urban renewal, urban area, social renewal, Mashhad, district 11.*

Introduction

In a globalized world with dominant neoliberal economy and with half of its population living in cities in rapid transformation, the weaknesses related with social issues which reduce the overall prosperity of cities and the quality of life of its inhabitants, proliferate rapidly. Rapid urban growth, insecurity of housing policies and urban management and other instabilities, such as limited resources on the planet, climate change and economic crisis make urgent to focus the attention on the needs of the populations located in the urban area of third world. The challenge is to ensure that this new expanding cities continue livable, manageable and more sustainable. A higher urbanization level implies more "urban security", understood here as an equal access to goods and services, territorial orderly development and management, rational use of natural resources and, essentially, a peaceful and civic coexistence of its inhabitants, helping to prevent and mitigate the different types of vulnerabilities and threats.

¹ Email: alighesmi@yahoo.com

² Email: rfarhudi@ut.ac.ir (Corresponding Author)

³ Email: ezatollahezzati@yahoo.com

The hypothesis presented is that urban design view as a process and as “place making” and combined with social theory may be an effective resource for the local development of communities. Urban design in urban space may have an ethical and aesthetic power to build social capital, which enhances more stability of a society as well as their common interests without destroying, however, the uniqueness of any social group. (Sander, 2002; Svendsen, 2010; Moobela et al., 2009). Upon this background Urban renewal is commonly adopted to cope with changing urban environment, to rectify the problem of urban decay and to meet various socio-economic objectives. (Adams & Hastings, 2001; Couch, 1990; Lee, 2003). However, the urban renewal process are often beset with social problems such as destruction of existing social networks, expulsion of vulnerable groups and adverse impacts on living environments (Chan & Yung, 2004; Couch, 1990; Lee, 2003; Ng, 2002; Rothenberg, 1969). These phenomena have instigated urgent need for an effective approach to urban redevelopment. Recently, sustainable urban design has gained popularity to deal with the problems and to increase positive outcomes of urban renewal process. (DETR, 2000; Vandell, Lane, & Kain, 1989). This paper discusses the development of a survey tool designed to measure social sustainability in urban renewal area in Mashhad, and presents selected results of a pilot of that tool conclusions are drawn about the potential implications of the survey findings for the effective planning of service provision for residents living in urban renewal areas in Iran. This paper discusses the development of a survey tool designed to explore the ways in which people relate to each other within a high-density environment, the barriers that prevent them from engaging in community life, and the opportunities for planning and urban design to create more supportive conditions for community interaction and cohesion. Given the extent of urban renewal activity underway and forecast in Iran, a survey tool developed for assessing social outcomes from urban renewal process is likely to have broader national relevance. Significant research effort internationally has recognized this through developing research tools to measure social sustainability in urban renewal sites However, less attention has been given to these issues in areas dominated by physical planning. The aim of this paper was to develop a survey tool to collect information on social sustainability through standard data sources, which could be implemented regularly to enable comparisons over time, and replicated in other locations. The survey tool was developed and piloted in the District 11, Municipality of Mashhad, Iran. The following section clarifies the use of the terms social sustainability at the neighborhood level, and the components of social sustainability that can be considered in a survey tool. This is followed by a discussion of the concept of social sustainability and the role of the neighborhood in academic debates. The study area is then introduced and a description given of how the survey tool was developed, followed by a summary of selected pilot survey findings. The paper concludes with a discussion of the potential implications of the survey findings for the concept of sustainability and urban design and review of social sustainable features in urban renewal areas in Mashhad, and applications of the findings are also explained.

Theoretical and Conceptual Background

Part of sustainability is the longevity of social well-being of all members of the community. These well-being aspects included health, education, social interaction, recreational, religious freedom and cultural-value or beliefs expression, among others (Darchen and Ladouceur, 2013). However the attention has recently shifted onto regional, city and neighborhood issues (Shutkin, 2000; Berek, 2002). As designing, building and managing a community through urban renewal is considered as one of the most important tasks at the local level, deciding how to apply sustainable concept to urban renewal to revitalize the communities is a matter of concern that should be properly addressed.

Urban renewal

Urban renewal often referred to as a process that has been commonly adopted to cope with changing urban environment. In fact, in urban context, the main aim of New Urbanism is to emphasize on the basic principles of urban planning at the neighborhood scale and its unique consistency and align with contemporary world. Urban refurbishment with considering the neighborhood as a fundamental building unit is formed of all residential areas, with the aim to meet the needs of people in different fields. In this regard, managers and urban planners have concluded that a combination of physical considerations and urban spaces' architecture features along with good understanding of social relationships can affect the success of urban design (Teymoori, 2002). Stephen Messner (1968) and Christine Stevens (1995)

pointed out that the capital investment stemming from redevelopment could offer social and economic benefits to local communities. Certain social problems, such as crime and poor environmental hygiene, could be reduced after the removal of poor quality structures in urban areas. Additionally, properties in the vicinity of redeveloped areas could become more valuable. Stevens (1995) added that redevelopment could bring about significant indirect economic benefits by creating jobs and improving economic activity. Urban renewal is conducted to achieve a number of goals especially for slum clearance (Steel and Slayton, 1965; Rothenberg, 1969; Rapkin, 1980; Taylor and Newton, 1985; Cuthbert and Dimitriou, 1992; PLB, 1996; Lü, 1997; Carmon, 1999; Chan, 2000; Ha, 2004). Nevertheless, Urban renewal often results in massive building demolition and the displacement of existing residents (Stevens, 1995; Arthurson, 1998). It destroys the existing social fabric and networks, leading to social isolation. Marc Fried (1966), Stevens (1995) and Larry Keating (2000) believed that process can create disruptions to individuals and communities and reduce social capital as a whole. Susan Oakley (2007) mentioned that the majority of local residents are concerned about the negative impact of redevelopment on the continuity of a “sense of place”. This is contrary to the principles of community building in the contemporary urban planning concept. In addition to these social problems, Urban renewal also damages the environment. In addition, in typical Urban renewal projects, old and relatively low-rise buildings are torn down and replaced by new high-rises. The erection of these high-rises may affect the natural lighting and air circulation in the neighborhood. An increased development density can be detrimental to a community’s health (Jackson, 2003). On the other hand, building rehabilitation is more socially friendly because it upgrades the physical built environment without relocating the residents. Building rehabilitation is important in regenerating old urban areas (Hui et al., 2008) and is needed to open the potentialities of city life to the local communities (Ogdul, 2000). It causes less social disturbance (Needleman, 1965) and is a cheaper and faster method to enhance the building quality (Yau & Ho, 2008). Robert Simons et al. (2003) listed the economic and social benefit of the Community Development Corporations (CDC)’s housing rehabilitation programs, including job creation, increasing property values, improved quality of housing, provision of low-income households with affordable housing, and improved neighborhood stability. Urban renewal is a complex process that has been commonly adopted to cope with changing urban environment, to rectify the problem of urban decay and to meet various socioeconomic objectives since Industrial Revolution (Couch, 1990; Adams and Hastings, 2001; Lee, 2003). Urban renewal improves building quality, strengthens residents’ identity and contributes to the decrease of social asymmetries (Mourao & Pedro, 2007). In addition Urban renewal adds value to both the improved properties and those nearby (O’Loughlin & Munski, 1979; Yau, Chau, et al., 2008). From an environmental viewpoint, Urban renewal is a means of increasing housing space supply with a low expenditure of energy and material consumption. Urban renewal process upgrading the building quality of existing stocks, is very important for enhancing the sustainability of the built environment (Cooper, 2001)

Urban renewal and social sustainability

Urban sustainability has become an important issue when increasingly more cities are experiencing considerable physical, economic and social transformations. Nicola Dempsey et al. (in press) pointed out that sustainable development should not be solely an ecological or environmental issue, but should also encompass physical, economic and social dimensions. This is particularly true when the concept of sustainable development is applied to the arena of urban management, including urban renewal. Given that the primary objective of urban renewal is to improve the quality of life for the community affected, the physical improvement of its built environment alone is insufficient (Planning and Lands Bureau, 2001). As put forward by Peter Roberts (2000), urban physical conditions are strongly linked to social responses. Urban renewal often creates new social problems. For example, inadequate compensation, lack of residents’ participation in the renewal process and the unavailability of the option for original residents to return to the redeveloped areas often damages the diversity and vitality of the neighborhoods (Jacobs, 1961; Hartman, 1964). In addition, urban renewal, particularly in the form of redevelopment, may destroy families, kinship and the social networks of long-established communities (Willmott & Young, 1957; Meegan & Mitchell, 2001; He & Wu, 2007). Patrick Loftman and Brendan Nevin (1995) emphasized that the negative outcomes of urban renewal would be more profound for the disadvantaged, such as those with low incomes and the elderly. Because social capital plays a certain role in sustainable

development (Danchev, 2005), planners should duly consider various social issues so that they can map out a sustainable strategy of urban renewal for a city (Price Waterhouse, 1993; Edwards, 1997; Roberts, 2000; Stubbs, 2004; Friedman, 2007). A successful renewal project improves the life opportunities of the existing residents and promotes social cohesion and a sense of belonging in the area (Arthurson, 1998). To a large extent, renewal projects of this kind can achieve urban social sustainability, which is defined by Oren Yiftachel and David Hedgcock (1993: 140) as: “[t]he continuing ability of a city to function as a long-term viable setting for human interaction, communication and cultural development.” With a view to social sustainability in urban renewal, therefore, planners are required to comprehend the appropriate approach that brings fewer negative impacts to the existing social fabric and causes less reduction in social capital. Many previous studies (e.g., Needleman, 1965; Brookes & Hughes, 1975; Alker & McDonald, 2003; Yiu & Leung, 2005; Chan & Lee, 2008b; Yau, Ho, et al., 2008) focused on the economic and physical dimensions of urban renewal. There has been little empirical literature that has demonstrated the relative significance of social networks in communities and the perceptions of their residents towards various urban renewal strategies. For instance, Michael Warren (1965) and John O’Loughlin and Douglas Munski (1979) highlighted that residents in the U.S. did not prefer housing rehabilitation because of the increased property taxes. Therefore, Richard Travis (1973) and O’Loughlin and Munski (1979) suggested that residents’ attitude toward rehabilitation should be examined before its implementation. The same applies to other means of urban renewal. What is equally important is to consider the value placed by residents on their existing social environment in urban renewal (Brookes & Hughes, 1975). Although urban renewal or regeneration can contribute to a city’s sustainable development through recycling dilapidated sites and buildings (Couch & Dennemann, 2000), planning and implementing the projects in a “sustainable” manner can be challenging. In light of the divergent views and conflicting interests of different stakeholders, it is necessary to involve the local community in order to arrive at a more informed and socially responsible decision in urban renewal (Ng, 2002). Policymakers and administrators should bear in mind that sustainable development should be based on the understanding of close links between the environment and society with feedback loops that go both ways (Hopwood et al., 2005). Sustainability in urban renewal projects can only be achieved by engaging the community in the process (Fordham, 1995; Edgar & Taylor, 2000). All these studies explain why community involvement should be a major part of the urban renewal process in order to convert the aspirations of communities into decisions that benefit them (Warren, 1965; Jacobs & Dutton, 2000; Lloyd, 2002), although Marilyn Taylor (2000) has cautioned that involving the community in the urban renewal process could be time-consuming and complex.

Materials and Methods

The methodology used for this case study research strategy can be broken down into the following phases: definition of a conceptual model, establishment of a set of dimensions of analysis, construction of a system of indicators and extraction of conclusions. The empirical work was based on the collection of bibliographical elements, direct observation and field interviews.

Social Indicator in Research

Built environment affects social well-being. However, achieving social sustainability for a city always goes beyond the manipulation of the physical environment and has direct relationship with intangible values of the community, and psychological and emotional need of public. Provisions of various types of amenities are vital to a society. Public facilities such as schools and medical centers cater for basic needs of the citizens (Rothenberg, 1969) while others like sports facilities and community centers offer venues for holding different leisure activities. To look after vulnerable groups such as disabled, elderly and children within a community, special provisions should be readily available for their uses. From this perspective, social processes that changes proportional to the development of mental and environmental factors, and affect the ability to attract people in public space should be considered by urban planners in preparing urban projects. Help to build more cohesive societies along with above mentioned items is one of the main priorities of urban renewal projects. Research shows that urban regeneration intervention has an overall positive impact on areas with poor community cohesion through promoting more interaction among different resident groups (SDC, 2007; Audit Commission, 2008a) in late 1990, the increase in social interactions and decrease social inequalities in order to deal with the disintegration of

communities were considered by governments. The process that is effective in creating sustainable urban communities. Empirical evidence also shows that the attention to the principles of the composition of communities in addition to the reduction in social - behavioral malformations, crime and will attract and retain families in cities (Tunstall and Fenton, 2006; Silverman et al., 2006) and the right combination of society can be seen as a description of the "sustainability" terms and reflect the community's capacity to meet the needs of residents during the time (Kearns and Turok, 2006). Public participation is another matter of concern during urban design process. When a development is conducted without working with the local community, the public is not likely to react favorably (Barnett, 1982). On the contrary, when the residents are involved in planning their communities and decision making process, the outcome of the urban design is very likely to meet their needs and desires (Rydin et al. 2003). In this way, the confrontation and social oppression are minimized and the senses of belongings of the citizens are enhanced (Inam, 2002). It should be noted that the indicators of social sustainable in urban renewal could be examined according to theoretical studies and real and concrete conditions and characteristics of the desired range and then we can adopt a suitable framework to deal with problem (Figure 1).

Physical Setting

Green design

This factor includes three variables (Energy use, Water use, Energy use). It is widely recognized that green design can optimize the use of natural resources available in a community, improve the environmental quality of the city, and minimize the wastage of scarce resources. The consumption of natural resources can be more effective through good building design. Proper building orientation and façade design can maximize the ingress of sunlight and facilitate natural airflow, while the installation of insulation systems, the selection of light-colored materials, the use of low emission glazing and the provision of external shading devices such as fins and balconies, etc., can regulate heat entering and leaving buildings without inducing excessive solar heat gain and heat loss. As a result, only a reasonable amount of energy has to be used for providing artificial lighting, and additional cooling and heating. (Chartered Institute of Housing, 2000). In this way, the total amounts of energy to be used for future building operation and the emission rate of the greenhouse gases, making a major contribution to global warming can be substantially reduced.

Services

This factor has three items (Public transport, Access to GP/ health, facilities). variables relating to the design and integration of the public and private Services such as shops, schools, surgeries, pubs, police, social services, and other neighboring places in an urban area. Policy makers and city planners have tried for many years to mix communities better by attracting better-off households back into urban deprived urban areas, in order to prop up schools, de-concentrate poverty and prevent sprawl. Better-off households, in particular, are expected to contribute to an area by pressuring local bodies and institutions for better services, monitoring. Public order and facilitating social interaction across different backgrounds, resulting in an improvement in standards (Silverman et al., 2006; Tunstall & Fenton, 2006). Therefore a renewed area has to contain a wide mix of land uses including office, residence, retail, entertainment, etc. performing in mutually supportive manner in order to establish a vibrant living, business and leisure environment. A lively region can generate pedestrian activities, facilitate social interactions and stimulate local economy by attracting citizens to visit frequently and stay for a longer period during each visit.

Built Environment

This factor has five items (Access to school, Green open space, Satisfaction with Own home, Housing state of repair, Housing and area conditions). Built environment affects social well-being. Urban design to alter the physical fabrics of a city can fulfill the physical needs and desires of various parties in the community. However, achieving social sustainability for a city always goes beyond the manipulation of the physical environment. Therefore, intangible values of the community, and psychological and emotional needs of the public should also be taken into account in order to sustain social wellness accordingly Buildings as well as neighboring areas should be properly designed to create a harmonious living environment, and should be well maintained to retain and improve the standard of living of the

citizens. In addition, the uniqueness of an area can be highlighted through heritage preservation and promotion of local characteristics. Open spaces provide buffer zones in crowded urban areas for social gathering and interaction (Chui 2003). Open spaces with greenery in particular are recognized as major contributors to human health and social wellbeing because they effectively improve the physical health of residents and reduce human stress (Morris 2003). Undoubtedly, open spaces are important to improve overall environmental quality in a local community (Nevter and Beser, 2003). Open spaces are regarded as the lungs of urban areas as they provide a break in the congested urban environment. Green spaces such as parks, in particular, ameliorate the local climate (Oktay, 2004). Management of buildings, Housing, and area design is also contained because proper management helps to keep conditions of the physical environment to an acceptable standard, and prevent premature deterioration and huge expenses for delayed repair. Despite that urban renewal projects can improve the built environment and the quality of life of the citizens to a certain extent. However, they may impose negative impacts on social, economic and environmental domains of the communities when they fail to strike a balance among those aspects (O'Flaherty, 1994; Bentivegna et al., 2002; Ng, 2002; McLaughlin, 2003).

Community Features

Moving patterns

Moving patterns indicating community demographics as seen ethnic mix and patterns of moving in and out of an area. When urban renewal process commences, existing buildings are demolished and residents are forced to be relocated. The families living in the same community have to move to other strange places to have a new life. The families living in the same community have to move to other strange places to have a new life. Children may leave existing schools and parents may quit current jobs. Existing social networks are destroyed, long term relationship and friendship established in previous neighborhoods are lost and social assistance is no longer provided in time of need (Rothenberg, 1969; Rapkin, 1980; Taylor and Newton, 1985; Carmon and Hill, 1988; Couch, 1990; Ng et al., 2001) Neighborhood disruption makes individuals feel inconvenience, loneliness, anxious, upset and insecure (Rothenberg, 1969; Chui, 2003). The negative psychological effects persist until new community ties are assembled. However, it is not an easy task to build up new social relationship (Ng, 2002). A survey conducted in 2000 suggested that nearly 1.3 of the residents of new urban area did not know the names of their neighbors and less than 1 in 10 persons had good relationship with them (Ng, 2002). Chui (2003) also revealed that "community sentiment" could not be nurtured in newly established community and problems like rising crime and family crises came up. If a substantial portion of the neighborhood leaves, those remaining in the areas undergoing the renewal process hesitate to invest in establishment of community network again (Rothenberg, 1969).

According to a previous study conducted by Ha (2004), almost 30% of residents perceived that the relationships with neighbors, social culture and sense of belongings of the residents got worse upon completion of the redevelopment projects. Local businesses are also expelled as the renewal process usually results in sharp increase in land rents (Carmon, 1999). Even though the dealers relocate their businesses elsewhere successfully, they still suffer as their long-time business relationship with the clients vanishes. They have to spend time to compete with the people of the same trade to reestablish reputation and relationship with new customers. As mentioned by Carmon and Moshe (1988), younger people, and those with higher education level and socioeconomic status would be attracted to form an affluent segment of existing population after renewal of the urban environment

Sense of community

It is about a feeling of belonging that the community members have, a feeling that the members are important to one another and to the group, and a shared faith that members' needs can be met through their commitment to be together. The sense of community increases when the citizens are able to maintain their social network and retain their social membership within their neighborhood. This indicator offers a qualitative means to evaluate the degree of community integration in the society. This indicator intends to examine whether the citizens after urban renewal can maintain close relationship with their old neighbors, and simultaneously they can make new friends in their new community. (Hemphill et al. (2004); Stubbs et al. (2005). When the physical and psychological needs of citizens are

satisfied within their communities through proper urban design, they feel happy and their senses of civic pride enhance (Inam, 2002). As mentioned by the Victorian Association for Environmental Education (2006), people who have a strong sense of belonging to their community are more likely to develop a higher sense of responsibility towards their living environment. Therefore, they are more willing to take action to protect the urban ecology. Urban renewal process to create living environment that increase the feeling of psychological well-being of the public through urban design. It aims to enhance the sense of community of the citizens, preserve community ties, reduce crime, promote local distinctiveness, and facilitate public participation in policy-making.

Crime and safety

Reducing crime has been seen as a prerequisite for achieving regeneration in deprived areas, and the provision of 'safe', 'clean' and 'orderly' spaces have been regarded as crucial to successful urban regeneration (Coleman, 2004a; Coleman, 2004b; SEU, 2001). Yet Hancock (2003, 2006), in a series of papers, argues that this relationship is regarded too simplistic and is not always true, as the UK's plethora of area-based initiatives, which failed to restore deprived areas by tackling crime, have shown. At the same time, it is widely recognized that the socio-economic context of neighborhoods and communities can be a significant factor in whether or not people become involved with criminal activity or associated behaviors (Farrington, 2001). Increasing attention is paid to how upgrading area conditions can make a difference to people's behavior and perceptions of crime and safety (Mumford and Power, 2003). As area conditions are improved following area regeneration, fear of crime is also found to decrease (Page and Boughton, 1997; Lawless, 2006). The 'broken windows' theory is a famous example of this, premised on the understanding that the neglect of local environments will signal to people that more extensive and serious instances of negative behavior will also be tolerated, or at least not effectively opposed (Wilson and Keeling, 1982; Keeling and Coles, 1996). Previous studies show that urban regeneration intervention has an overall positive impact on areas with poor community cohesion through promoting more interaction among different resident groups (Audit Commission, 2008; SDC, 2007). It has also been noted that levels of crime are negatively correlated to levels of community cohesion: the higher the levels of cohesion within a community, the lower its crime rates (Hirschfield & Bowers, 1997)

LA services

In contrast, earlier regeneration initiatives such as some of the Urban Development Corporations did not develop local partnerships, bypassing the local authority and residents, resulting in bureaucratic resistance, insufficient attention to local needs and recurring problems (Foster, 1999; Robson B. *et al*, 1994). Most of New Labour's urban regeneration initiatives have adopted some kind of local partnership agreement. These have usually included local public authorities such as local councils and social landlords, local service providers, residents and community-based organizations and sometimes local business as well. Their role has been to provide leadership, create a vision and build consensus, translate a vision into workable objectives, bring together the public, private and voluntary sector, maximize resources and encourage private investment. Yet two difficulties were associated with local partnerships. First, large multi-agency partnerships tended to marginalize the contribution of residents and residents in low-income areas were expected to invest far more time in these partnerships than if they lived in middle class neighborhoods (Barnes *et al.*, 2008; Foot, 2009). Second, service providers in fields such as health, education and leisure may find it difficult to engage with issues beyond service delivery and their agendas, draining time from business-as-usual.

Partnerships

'Joined-up' or 'multi-agency' partnerships have been seen as one of the strengths of recent urban regeneration initiatives, with one evaluation noting that "when the level of participation was low, performance was poor" (Cullingworth and Nadin, 2002), Arnstein (1969) implies that it is hard to be against community involvement, but even harder to be explicit about what one actually means by it. For example a recent study found that both residents and officials were uncertain about how to translate community engagement or involvement into practice (Ray *et al.*, 2008; Foot, 2009). Community involvement builds up local links, knowledge and understanding of the local area and increases

residents' confidence and team-working (Hay, 2008). Regeneration areas with high levels of community involvement tend to have residents with a stronger sense of commitment to the area, and the regeneration staff tend to be more positive about and value more community involvement (Ray et al., 2008). Community participation in mechanisms of local governance is central in three ways. First, it plays an important role in improving public services, by strengthening the hand of service providers petitioning for more or flexible resources. Second, it tackles the 'democratic deficit' and thus local residents become more influential in local political processes (Maguire and Truscott, 2006). Third, it creates 'linking' social capital between the community and local service providers. (Skidmore et al, 2006)

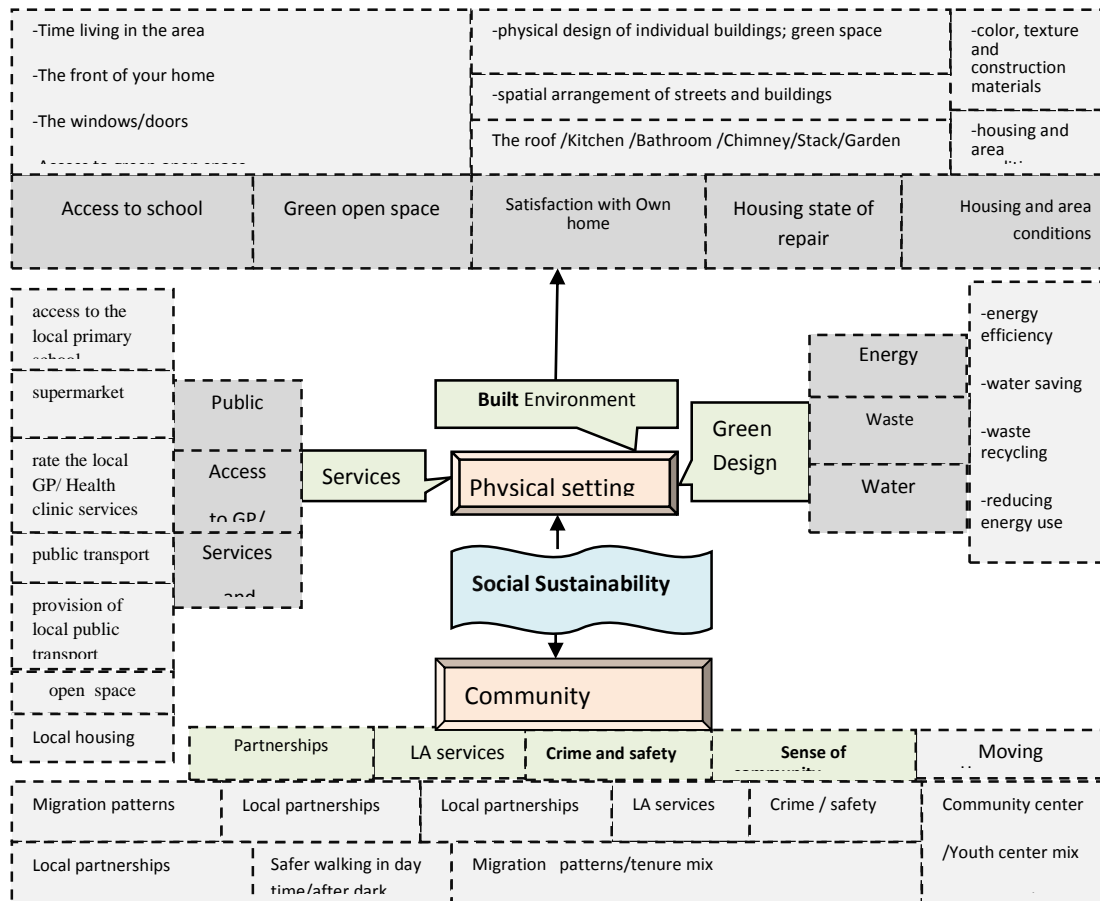


Figure (1): Experimental model to measure the social sustainability of urban renewal schemes

Study Area

The Iranian case study is Mashhad, capital of the khorasan province in the Northeast region of Iran. Mashhad is categorized as a Metropolitan city (300km²) with a population of just over 2,000,000 people. (Rahnama, 2010) Mashhad in terms of geographical location located at latitude 35 degrees 43 minutes north and longitude 59 degrees 37 degrees 7 minutes and 3 minutes to 60 degrees 38 minutes East (Shah Mohammadi, 86: 2007). The District 11 one of the developing areas of the city (statics of Mashhad, 21; 2012). The region's population density of 123 people per ha and the family size is 3.43 people that in terms of family members is approximately equal to whole city (3.42) (statics of Mashhad, 21; 2012). According to available statistics the population of this region in 2013 amounted to 222,018 people, which include 7.9% of Mashhad population. The extent of this urban area is 1800 HA that is extended from the north west of Mashhad (Figure 2). The statistical sample consisted of 166 males (43%) and 214 women (57 percent) that in terms of education, 67% have degrees higher than diploma and the rest were under diploma. The age range belongs to age groups between 18 and 35 years.

According to frequency and the results obtained from the questionnaire, most of the audience that use of study spaces are young peoples. (Table1). It should be noted that since this area is located near the business and commercial centers and density of the area and new development activity cause that the district 11 of Mashhad be qualify to measuring Social Sustainability in urban renewal process (Fig- 2).

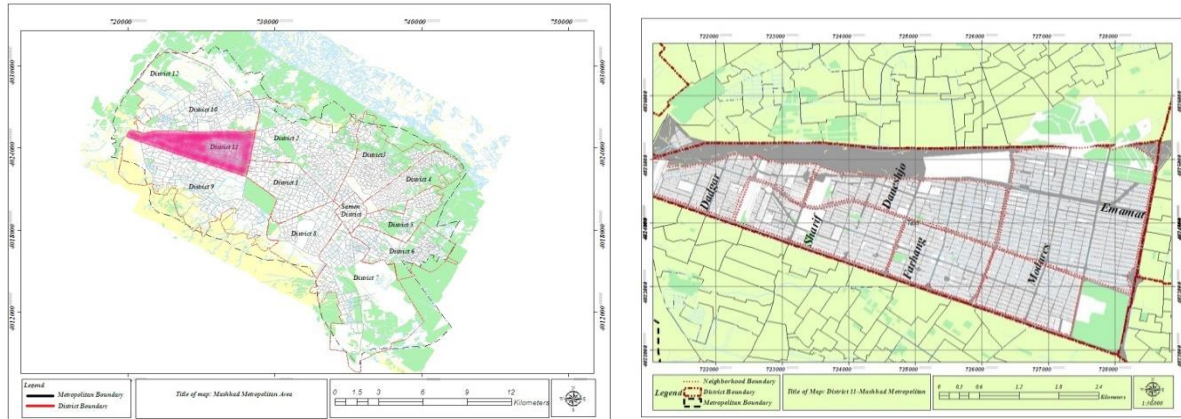


Figure (2): Location of the study area (Mashhad Metropolitan. District 11)

Table (1): Personal characteristics of the focus group participants

Gender		age					
Male	• Female	>18	18-35	35-45	45-55	55-65	65<
43%	57%		66%	20%	10%	2%	2%
Education level			Resident Age				marriage
Primary	Diploma	University	1-2year	2-5year	5-10year	Up10year	40%
10%	20%	70%	14%	20%	22%	44%	bachelor
Household status		Employment status		Income			60%
owner	Rent house	employ	unemployed	low	medium	high	
70%	30%	64%	36%	40%	23%	37%	

Results

The scaling method has been used to quantify experimental model used in the study area (Becker, 2000), such that, the average rate of Social Sustainability in urban renewal process of any two categories of its constructive standard, namely Physical setting and Community features were obtained from the lowest level of the model and one-sample t-test was used to achieve the Social sustainability status of urban renewal in terms of inhabitants. According to Cochran Formula and considering the population in District 11 a sample of 380 people is obtained. Using all documented and available information as field research and statistical analysis, a questionnaire was prepared and then distributed between 380 people, of both genders, male and female, aged between 15 to 65 years, and all of them were randomly interviewed. Data were valued using 5 point likert scale range. Applications such as Excel and Spss were used in the analysis of data. The response rate was 100%.The results showed the mean Social sustainability in the study area was 3.29 (table2) It should be explained. Five-point Likert- type scale between 1 and 5 was used. Thus, number 3 obtained as theoretical mean of answers and the mean scores obtained were compared with this number. According to the results of table 1, it can be seen that the mean score is 3.29 this means that the rate of urban renewal with a focus on sustainability issues is evaluated in a medium level. The status of Social sustainability in terms of residents range to separation of its constructive standards one sample t-test was used to obtain the status of Social sustainability in each of the desired criteria. During investigating the status of independent variables than theoretical mean, the variables of Moving patterns -Green open space-Services and facilities in general-Access to school -Public transport- Water use were higher than average and among these, 5 criteria (Sense of community, the ability to repair, Access to GP/ health services, partnerships and Energy use) from selected criteria for this study have not good situation (Table 3-fig3).Examining the relationship between Social sustainability factors Correlation between the factors influencing with Social sustainability,

according to information obtained from the results of Pearson test by SPSS software in Table 3 show that among the community feature all of selected variables have shown significant relationship with Social sustainability in urban renewal process and in this dimension the security variable.

Table (2): T test results of social sustainable in urban renewal from the perspective of residents and its constructive standards

Fundamental domains	Mean	Sd	N	Test Value = 3
Social Sustainability	3.29	.66	380	

Table (3): the statue of social sustainable urban renewal according to the item and variables

Variables/ Item	Mean	Std. Deviation	Score
Community features			
Moving patterns	3.56	.61	High
Sense of community	3.38	.57	Low
Crime and safety	3.62	.71	Medium
LA services	3.02	.86	Medium
Partnerships	2.95	.52	Low
Physical setting			
Housing and area conditions	3.09	.49	Medium
Housing state of repair	2.5	1.28	Low
Satisfaction with own home	3.29	.55	Medium
Green open space	3.88	1.95	High
Services and facilities in general	3.63	.61	High
Access to school	3.91	.59	High
Access to GP/ health services	2.84	.74	Low
Public transport	3.72	.64	High
Energy use (energy efficiency)	1.47	1.01	Low
Water use (water saving)	3.54	.55	High
Waste recycling	2.93	.86	Medium

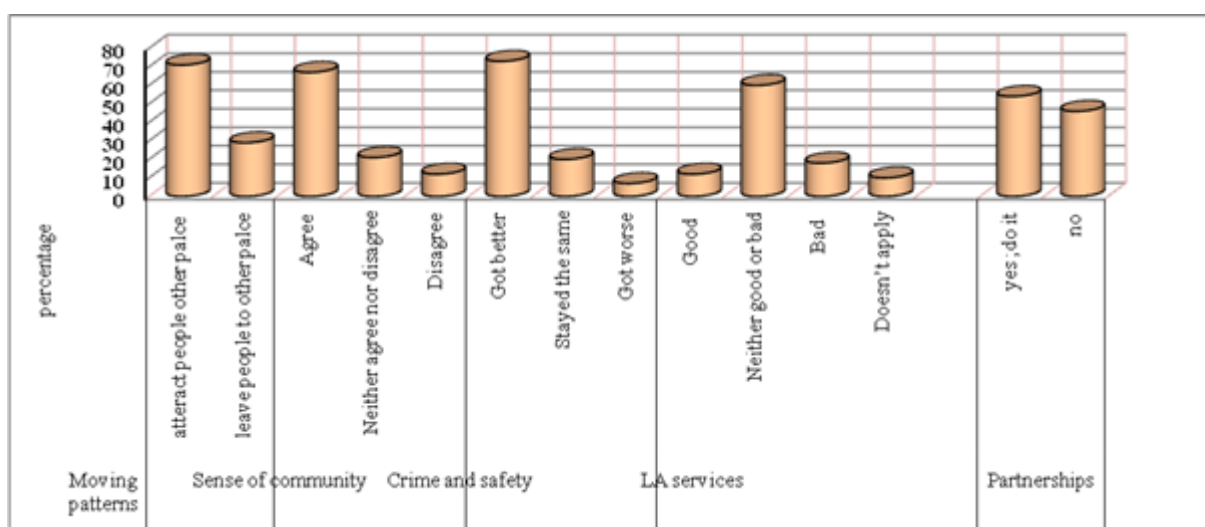


Figure (3-a): Cognitive and structural dimensions of social sustainability in Mashhad, district 11

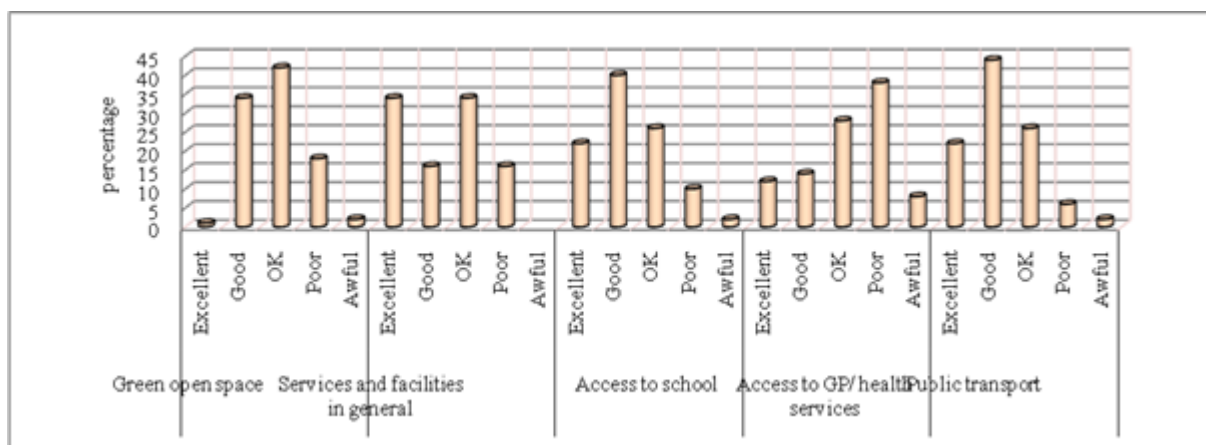


Figure (3-b)

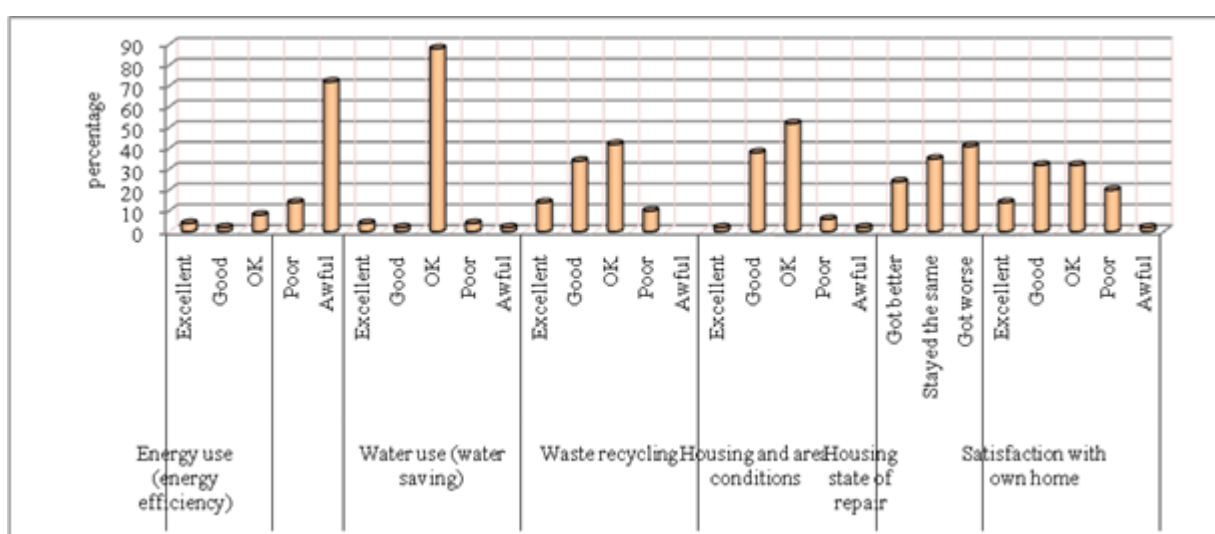


Figure (3-c)

Table (4): The results of the Pearson correlation coefficient between the approaches of sustainable urban renewal

Variables/ Item	Pearson Correlation	Significance	N	Cronbach's Alpha
Community features	.711	**	380	.70
Moving patterns	.356	**	380	
Sense of community	.448	**	380	
Crime and safety	.655	**	380	
LA services	.495	**	380	
Partnerships	.286	**	380	
Physical setting	.914	**	380	.76
Housing and area conditions	.55	**	380	
Green open space	.78	**	380	
Public transport	.70	**	380	

Notes:

- Positive coefficients indicate that protected areas alleviate poverty or increase rice harvests, whereas negative coefficients indicate that protected areas exacerbate poverty or reduce rice harvests.
- N s= not-significant.
- Significant at P < 0.05.
- ** Significant at P < 0.01
- The internal consistency of the scales was also analyzed calculating their Cronbach's alphas

Among the physical variables Three variables includes the quality of public transport, green space and design features and the conditions of residence have a relatively high relationship with social sustainability in urban renewal independent variables. After making sure of the existence of relationship between variables, multiple regression test was used determine the rate of this relationship. This study showed that all three factors community aspects, the services, Community feature and built environment have positive impact on social sustainability in urban renewal process (Table 5).

Table (5): Linear regression

Independent variables	Unstandardized Coefficients		Standardized Coefficients	t	p-value Sig.
	B	Std. Error	B		
Community feature	.575	.024	.57	22.81	.000
Service	.180	.056	.33	3.23	.000
Built Environment	.623	.018	.26	18.7	.000

a. Dependent Variable: sustainable urban renewal , R=.737 .R square=0.750 , *** p-value < 0.01; * quadratic form

According to the findings, the output model to better understand the results obtained using path analysis (Fig. 4). Prioritization listed in Table 6 shows that the **Built Environment** of the research has the top priority and variables such as Community feature, services, and have other priorities.

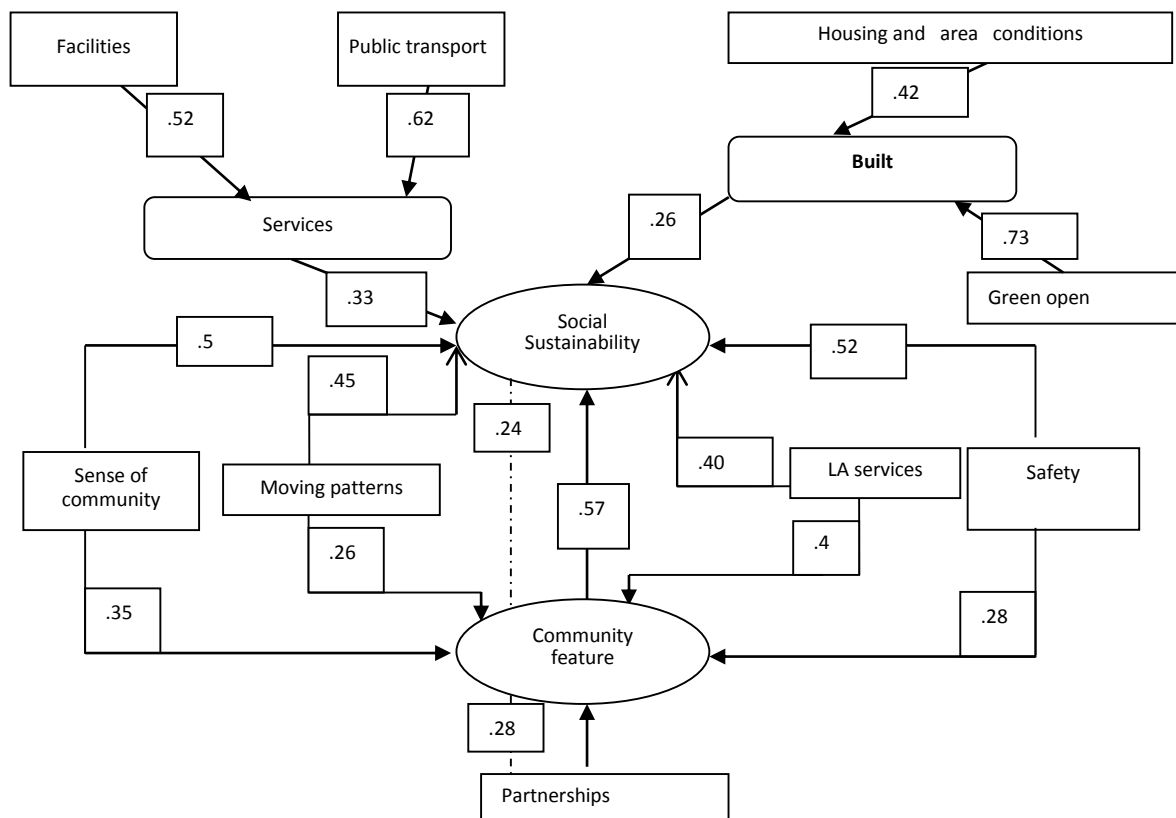


Figure (4): The impact coefficients (Beta) obtained for variables of research model relations from path analysis

Table (6): prioritization of independent variables on Social Sustainability in urban renewal in Mashhad,

Variables/ Item	Direct Effect	Indirect Effect	Total Effect	rank *
Community feature	.57	.-	.57	
Moving patterns	.45	.15	.6	5
Sense of community	.5	.2	.7	3
Crime and safety	.52	.16	.7	3
LA services	.4	.23	.63	4
Partnerships	.24	.16	.4	6
Built Environment	.26	.-	.26	
Housing and area conditions	.23	.10	.33	7
Green open space	.56	.18	.74	1
Services	.33		.33	
facilities	.15	.17	.32	8
Public transport	.521	.20	.72	2

Notes: Effects, Example for Social Sustainability ◻

* The design considerations are ranked according to their total effects

Discussion and Conclusions

The importance of the sensing the sustainability in its various dimensions, especially in the urban renewal process can assist planners in order to improve the habitat, especially if a significant part of this evaluation assigned to review attitudes of residents to this. The issue that causes programs and projects be closer to the realities and needs. In this regard, the present study is conducted to assess the social sustainability of urban renewal projects using hierarchical model framework from its building blocks that was completed using questionnaires technique that randomly distributed among the 380 people residing in Mashhad city. Standards in the social variable using 5 spectral items were valued and statistical analysis was performed using SPSS software. The results showed that in Mashhad city the social sustainability urban projects in terms of having social facilities and services and considering the size and scale of the study area and special features of the region and regional population and density features is in an average condition ($1 < 3.29 < 5$). This reflects the fact that the area in residents view is in inappropriate condition. In the social stability, there is a Medium level of desire for survival, citizenship power and the presence of NGOs and participation. Thus, it seems that some measures to make ensure sense should take by urban managers and planners so the residents be able to play a role to improve their living conditions. With this approach, managers acts according to domestic and urban needs as well as culture and habits of each location and also considering the permanent change in modern cities and its citizens. An approach that by involving people in the fate of city and using collective wisdom, can strength the sense of belonging to the place they live and move toward the social justice and comprehensive development (sustainability). Also in physical issue was considered in this study.

The results showed that this factor has a Medium level similar other research model factors ($1 < 3.16 < 5$).among physical factors accesses to Public transport ,services and facilities were above average and Housing state of repair and Energy use have not suitable conditions and faced with the problem and scarcity. Therefore it seems that the physical neighborhood and its environmental characteristics such as scale, functionality, aesthetics, urban spaces, bond form and relationship of a region with entire city, permeability, internal and external network access and how to transplant or adapt to mass should give more attention and thus civil life and a sense of belonging and participation of the public and implementation of renewal projects be strengthened (Teymoori, 2006). Another result of this research, using statistical analysis related to the correlation (Pearson) shows that there is significant and positive correlation between effective dimensions in social sustainability of urban renewal, most of the selected indicators relating to the status of sustainability of urban renewal in district 11 of Municipality Mashhad (if the obtained correlation value be less than 5%, the result is significant) and according them we can judge about them (table 3). For example, we can say that most of indicators of physical setting that affect the social sustainability of urban renewal projects ($r = 0.711$) and all selected community feature indicators in this dimension significant relationship with the social sustainability of urban development projects. Also according to the output of multiple regression analysis it revealed that

coefficient of determination adjusted for the variables entered to research model is (R square = 0.73), which suggest that 73% of the variance and vibrate changes of social sustainable urban renewal are predict and evaluate by equation variables (community feature, services and built environment dimensions) and the rest of these changes (27%) oriented from dependent variables related to the impact of external factors that is known as the square of error quantity, e^2 . The results of multiple regression analysis of mentioned variables can be written in standardized and mathematic form as follow:

$$Y = b_0 + X_1b_1 + X_2b_2 + X_3b_3 + \dots + X_nb_n$$

In this equation, Y is the dependent variable, mean the social sustainability urban renewal, b_0 ($i = 0, 1, 2, \dots, n$) is the constant coefficient and X_1, X_2, \dots are independent variables. In this study the variables of community feature with $\beta = 0.575$, services (0.180), built environment (0.623) became known as factors influencing the social sustainability of urban renewal projects in Mashhad. These factors can be used to calculate the regression and its equation is as follows:

Built environment (0.623) + services (0.180) + community feature (0.575) = the amount of the social sustainability of urban renewal projects.

Our multivariate analysis shows a variety of factors explaining the social sustainability scores. Several socioeconomic characteristics are important for the level of social sustainability. However, path analysis was used to have better understanding and evaluating the direct and indirect factors affecting the social sustainability of the urban renewal projects also to compare the status of indicators related to this research (Olobatuyi, 2006). As shown in Table 5 physical dimension with a significant difference compared to other factors had the highest effect (Green open space; $B = 0.56$), (Public transport; $B = 0.521$). This impact, for example in physical dimension, shows that it is the direction of direct and positive correlation and with the increase in standard deviation units in physical variable the standard deviation increases, it should be note that since the space is the physical reflection of social, cultural, dimension of each society, recognition of the characteristics of community and space in urban areas and planning to intervene in these spaces should be take place based on possibilities. This means seeking capabilities to enhance the current situation is based on possibilities and limitations. However, in order to facilitate the process of regional development, as well as creating balance and equality in the development of urban areas using sustainability advantages.

The research is timely and useful as it delivers valuable information on the factors that contribute to socially sustainable urban renewal process. An evaluation of critical factors for enhancing social sustainability of urban renewal projects based on the perceptions of different stakeholders who design, build and use the urban fabric can strengthen the understanding of local developers, urban designers and government officials on the interrelationships between spatial and physical characteristics of an area and its social qualities which are very helpful in planning local urban renewal strategies in future. The community as a whole can be better off when these socially sustainable factors are considered before drawing up urban renewal plans because harmonious living environments meeting physical and psychological needs of the public can be established, social equity can be sustained and the quality of life of the citizens can be improved upon completion of the projects. Furthermore, the results of this research derived from local context can be served as a reference for other Asian countries where urban renewal policies in their regions have generated disadvantageous social consequences. The findings also provide a platform for urban scholars to conduct further studies to find out the critical factors for enhancing economic and environmental sustainability of the urban renewal projects, and to verify the applicability and reliability of these factors. In this regard, the overall sustainability level of the urban renewal projects can be enhanced and the interests of present and future generations can be safeguarded in future. Further studies should be launched in future to find out the critical factors for enhancing other sustainable values i.e. economy and environment, and to verify the applicability and reliability of the factors. It is expected that best practices of urban renewal projects can be established and effective strategies can be prepared for improving project performance afterwards. the following suggestions are offered:

- Proper and systematic scheduling of projects in social dimensions, along with providing practical strategies with people participation to actualize the potential powers that could be the background for calling the balanced and homogeneous content development (Hussein Zadeh, 2001, p. 69)
- Removing regulatory gaps in cooperation and coordination of decision-making and decision maker institutions in the renewal and increase citizens' awareness of issues of rehabilitation and reconstruction of urban spaces, as well as efforts to inform and sensitization through training that is done by community mobilization and the local council
- Review all laws and regulations that limit the access of low-income families to facilities and funds and applying initiatives tailored to local and regional capacities.
- The participation, continuous monitoring and management, with respect to residents view in different category of development projects as various groups and organizations In all stages is essential. Host area people direct and without intermediaries benefit from the benefits of these initiatives is the condition of survival. Otherwise such development projects that often created using relative advantages of the region, by the people of the region
- considered as annoying and poorly element (fadsher,2001;165)
- applying the methods of residents participation in basic servicing with consolidation and necessary reforms along with matching existing patterns and rules of urban planning and designs and urbanization and building regulations and standards with the reality of environment and the ability of low income families and with possibility of their gradual improvement and in harmony with urban development strategy and special consideration of new building technologies such as green design that be able to protect the urban spaces from environmental pollutants.
- Environmental infrastructure in which creating parks and green spaces, leisure areas for citizens and appropriate determination and orientation of future development of the city, improving urban public transport and increasing access to land uses, etc. are considered.
- Investigating the implementation background and ability to implement development projects in the regions should be in the form of a systematic view, up to such poles of growth formed consistent with the social systems. Using different teams of experts to monitor, the implementation of this condition will be possible and the project implementation success rate will have higher level (Ziyari, 1999, 31)

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