SPATIAL DESIGN FEATURES TO ENHANCE SOCIAL INTERACTION AMONG RESIDENTS OF A LOW-RISE NEIGHBOURHOOD IN BASRA, IRAQ

HANI AHMED HUSSEIN ALAHMED

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By

HANI AHMED HUSSEIN ALAHMED

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Master of Science

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Chairman : Associate Professor, Ar. Azizah Salim Syed Salim, PhD
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The planners of the Municipal of Basra have issued a rationalization of land use and encouraged developers to use low-rise residential neighbourhood. However, solving the problem of lack of lands for housing leads to other problems. The communities who are living in the low-rise residential neighbourhood do not interact with one another. The main objective of this study is to identify the significant characteristics of spatial design configuration, which influence the residents’ social interaction in order to solve the lack of residents’ satisfaction in low-rise residential buildings in a neighbourhood. The contribution of this study examines the spatial characteristics of built environment (secured, collective, supportive, responsive spaces) by extending the use of multiple regression models to analyse the spatial characteristics that could affect the residents’ social interaction.
The first objective, to understand the effect of built environment on the social interaction achieved by clarifying the literature review of both western communities and Arab-Muslims communities. The questionnaires used to achieve the second objective of this study that is to analyse the feedback of the low-rise residential neighbourhood residents and the level of social interaction among residents. The study used multiple linear regressions to examine the influence of spatial characteristics of built environment on social interaction.

The study concludes that the existence of specific characteristics may enhance social interaction of the residents. These characteristics are hierarchical spatial structure, physical security supports, fostering proper proximity and accessibility, supporting predisposition and motivations, supporting socio-cultural behaviour characteristics, supporting residents’ needs and activities, and increasing permeability. This result came up from the questionnaires. This study significantly contributes to the field of housing. The study clarified the theories of social interaction among the residents in both the western and Arab-Muslim communities. The study identified the spatial characteristics that could reinforce social interaction among the residents.
Abstrak Tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Sarjana Sains

CIRICIRI REKABENTUK RUANG (SPATIAL) UNTUK PENINGKATAN INTERAKSI SOSIAL PENDUDUK DI KAWASAN KEJIRANAN BANGUNAN BERTINGKAT RENDAH BASRA, IRAQ

oleh

HANI AHMED HUSSEIN ALAHMED

Ogos 2012

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Perancang Perbandaran Bandaraya Basra mereka telah merasionalisasikan penggunaan tanah dan menggalakkan pemaju untuk membangunkan kawasan kejiranan jenis rumah bertingkat rendah. Namun demikian, penyelesaian masalah kekurangan tanah untuk tapak perumahan ini turut membawa kepada masalah-masalah lain. Masyarakat yang tinggal di kawasan kejiranan jenis rumah bertingkat rendah mengalami masalah ketara dalam perhubungan di antara mereka. Objektif utama kajian ini adalah untuk mengenal pasti ciri-ciri penting konfigurasi rekabentuk ruang yang mempengaruhi interaksi sosial penduduk bagi menyelesaikan masalah ketidakpuasan hati penduduk di kawasan kejiranan rumah jenis bertingkat rendah.

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I certify that a thesis examination committee has met on 13th of August 2012 to conduct the final examination of HANI AHMED HUSSEIN ALAHMED on his thesis entitled “Spatial Design Requirements for Enhancing Residents’ Social Interaction of a Low-rise Residential Neighbourhood of Basra, Iraq” in accordance with the Universities College Act 1971 and the constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The committee recommends that the student be awarded the Master of Science. Members of the Thesis Examination Committee were as follow:

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DECLARATION

I declare that the thesis is my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

HANI AHMED HUSSEIN ALAHMED

Date: 13 August 2012
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>ii</td>
</tr>
<tr>
<td>ABSTRAK</td>
<td>v</td>
</tr>
<tr>
<td>APPROVAL</td>
<td>viii</td>
</tr>
<tr>
<td>DECLARATION</td>
<td>ix</td>
</tr>
<tr>
<td>APPROVAL</td>
<td>vi</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>x</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>xii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>xvii</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS</td>
<td>xviii</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>1 INTRODUCTION</td>
<td></td>
</tr>
<tr>
<td>1.1 Introduction and Background of the Study</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Statement of Problem</td>
<td>3</td>
</tr>
<tr>
<td>1.3 Research Question</td>
<td>5</td>
</tr>
<tr>
<td>1.4 Research Objectives</td>
<td>5</td>
</tr>
<tr>
<td>1.5 Research Framework</td>
<td>5</td>
</tr>
<tr>
<td>1.6 Organization of Thesis</td>
<td>6</td>
</tr>
<tr>
<td>2 LITERATURE REVIEW</td>
<td></td>
</tr>
<tr>
<td>2.1 Introduction</td>
<td>8</td>
</tr>
<tr>
<td>2.2 Description of Basra City</td>
<td>8</td>
</tr>
<tr>
<td>2.3 History of Basra City</td>
<td>11</td>
</tr>
<tr>
<td>2.4 Typology of Residential Urban Area of Basra city</td>
<td>13</td>
</tr>
<tr>
<td>2.4.1 Historic Centre</td>
<td>13</td>
</tr>
<tr>
<td>2.4.2 Courtyard Housing on Grid</td>
<td>15</td>
</tr>
<tr>
<td>2.4.3 Subdivision with Small and Attach Housing</td>
<td>16</td>
</tr>
<tr>
<td>2.4.4 Public Housing Estates</td>
<td>17</td>
</tr>
<tr>
<td>2.4.5 Incomplete Peripheral Subdivision (Less than 50% built-up Area)</td>
<td>17</td>
</tr>
<tr>
<td>2.4.6 Incomplete Peripheral Subdivision (more than 50% Built-up Area)</td>
<td>18</td>
</tr>
<tr>
<td>2.4.7 Informal Settlement</td>
<td>18</td>
</tr>
<tr>
<td>2.4.8 Mix Use</td>
<td>19</td>
</tr>
<tr>
<td>2.5 Residential Buildings Neighbourhood in Iraq</td>
<td>20</td>
</tr>
<tr>
<td>2.6 Spatial Design for Multi-Families Residential Buildings in Iraq</td>
<td>23</td>
</tr>
<tr>
<td>2.6.1 Double corridor System</td>
<td>23</td>
</tr>
<tr>
<td>2.6.1 Single Loaded Corridor</td>
<td>24</td>
</tr>
<tr>
<td>2.6.2 Multi-Core System</td>
<td>24</td>
</tr>
<tr>
<td>2.6.3 Point Block System Style</td>
<td>25</td>
</tr>
<tr>
<td>2.7 Spatial Design of Grouping Multi-Families residential building in</td>
<td>26</td>
</tr>
<tr>
<td>Iraqi’s Neighbourhoods</td>
<td></td>
</tr>
</tbody>
</table>
2.7.1 Grouping Parallel on street Line 26
2.7.2 Grouping Vertical on Street line 26
2.7.3 Grouping Courtyard Layout 27

2.8 Definition of Terms 29
2.8.1 Space 28
2.8.2 Configuration of Space 29

2.9 Social Interaction 31
2.9.1 The Theory of Incivility 32
2.9.2 Sense of Community 34
2.9.3 The Concept of Social Solidarity (ummah) 37
2.9.4 Prevention of Harming Public Rights Theory 40

2.10 Summary and Discussion the social interaction theories 41

2.11 Neighbourhood Built Environment 43
2.11.1 Concept of Built Environment 44
2.11.2 Effects of Built Environment Content on Individuals in western Communities 45
2.11.3 Influence of Built Environment Configuration on Individuals in Western Communities 47
2.11.4 Influence of Built Environment Content on Individuals in the Traditional Arab-Muslim Community 49
2.11.5 Influence of Built Environment Configuration on Individuals in the Arab-Muslim Community 51

2.12 Summery and Discussion 55

3 METHODOLOGY
3.1 Purpose of the Study 57
3.2 Conceptual Framework 57
3.3 Research Questions 60
3.4 Define Variables 61
3.4.1 Social interaction 62
3.4.2 Independent Variables 63
3.4.2.1 Supportive Spaces 63
3.4.2.2 Responsive Spaces 65
3.4.2.3 Collective Spaces 66
3.4.3.4 Secured Spaces 67
3.5 Area of study 68
3.6 Observation Study Area 71
3.7 Analyses of Data 74
3.8 Survey as Research Design 75
3.9 Survey Design a Questionnaire 78
3.9.1 the Questionnaire of the Study 79
3.10 Validity 82
3.10.1 Validity of the Variables Chosen 82
3.10.2 Validity of Measuring Variables Instrument of the Questionnaire 84
3.10.3 Validity of the Data Analysis Instrument 84
3.11 Reliability 85
3.11.1 Reliability of the Questionnaire 86

4 RESULTS AND DISCUSSION FOR ENHANCEMENT SOCIAL INTERACTION
4.1 Introduction 87
4.2 Descriptive Analysis of Households’ Demography 88
  4.2.1 Households’ Size 88
  4.2.2 Households’ Income 90
  4.2.3 Households’ Employment 90
  4.2.4 Households’ Education 91
  4.2.5 Working time of Residents 92
4.3 Actual Resident Social interaction 93
4.4 Relationship Between Social Interaction and Households’ Demography 93
4.5 Correlation Analysis 97
4.6 Multiple Linear Regression Analysis Model 99
4.7 Triangulation of Statistical Testing 102
4.8 Summary and discussion 106

5 CONCLUSION AND FUTURE STUDIES 112
  5.1 Introduction 112
  5.2 Research Question and Objective 113
  5.3 Summary Findings From Literature Review 114
  5.4 Summary Findings From Survey 115
  5.5 Limitation of the study 116
  5.6 Knowledge Contribution 116
  5.7 Recommendation of future Research 117
  5.8 Summary 118

REFFERENCES 120
APPENDICES 125
BIODATA OF STUDENT 142
LIST OF PUBLICATION 143
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Master Plan of Al-Basra Governorate</td>
<td>9</td>
</tr>
<tr>
<td>2.2</td>
<td>Master plan of Basra city</td>
<td>10</td>
</tr>
<tr>
<td>2.3</td>
<td>Satellite Image of the district namely old Basra (Basra al-kadimah) Figure</td>
<td>14</td>
</tr>
<tr>
<td>2.4</td>
<td>Sunshade of Heritage house in Basra \textit{(Shana heel)}</td>
<td>14</td>
</tr>
<tr>
<td>2.5</td>
<td>Showing Main Street in Historic Centre in Basra</td>
<td>15</td>
</tr>
<tr>
<td>2.6</td>
<td>Urban Fabric of Subdivision with small housing Attach housing (Alasma‘ee district)</td>
<td>16</td>
</tr>
<tr>
<td>2.7</td>
<td>Urban Fabric of Public Housing (alajemhoria district)</td>
<td>17</td>
</tr>
<tr>
<td>2.8</td>
<td>Urban Fabric of Mix Use in Basra city</td>
<td>20</td>
</tr>
<tr>
<td>2.9</td>
<td>Photo Indicating Mixed Use in Basra City Aljaza’ar Street</td>
<td>20</td>
</tr>
<tr>
<td>2.10</td>
<td>Low -rise Residential Buildings in Basra City</td>
<td>22</td>
</tr>
<tr>
<td>2.11</td>
<td>Explaining Spatial Design of Double Corridor System</td>
<td>23</td>
</tr>
<tr>
<td>2.12</td>
<td>Explaining Spatial Design of Single Loaded Corridor</td>
<td>24</td>
</tr>
<tr>
<td>2.13</td>
<td>Explaining Spatial Design of Multi Core System</td>
<td>25</td>
</tr>
<tr>
<td>2.14</td>
<td>Explaining Spatial Design of Point Block</td>
<td>25</td>
</tr>
<tr>
<td>2.15</td>
<td>Satellite Image of Grouping Vertically on Street Line in Basra city</td>
<td>27</td>
</tr>
<tr>
<td>2.16</td>
<td>Natural of Movement Theory</td>
<td>48</td>
</tr>
<tr>
<td>2.17</td>
<td>Outer Spaces in Traditional Arab-Islamic Neighbourhood Street</td>
<td>51</td>
</tr>
<tr>
<td>2.18</td>
<td>Harmony of Movement in Traditional Arab-Islamic neighbourhood</td>
<td>52</td>
</tr>
<tr>
<td>2.19</td>
<td>\textit{Baraha} (semi-public-semi private space) in traditional Arab-Muslim neighbourhood</td>
<td>53</td>
</tr>
<tr>
<td>2.20</td>
<td>Hierarchy of Outdoor Spaces in Arab-Islamic Neighbourhood</td>
<td>54</td>
</tr>
</tbody>
</table>
3.1 Explanation of the Relationship between Environment and Behaviour

3.2 Integration of Conceptual Model Marans & Spreckelmeyer, 1981

3.3 Attitude Behaviour Model

3.4 Research Framework

3.5 Satellite Image of Fao Neighbourhood in Basra City

3.6 Satellite Image of the Mowafaqiah Neighbourhood in Basra City

3.7 Calculating Sampling size by Kerjecie and Morgan table

3.8 Calculation sampling size by G-power software

3.9 Photo indicated street of Low-rise neighbourhood in Mowafakiah neighbourhood in Basra, Iraq

3.10 Photo indicated street of Low-rise neighborhood in Mowafakiah neighbourhood in Basra, Iraq

3.11 Residential buildings in Fao neighbourhood

3.12 Photo indicating entrance of residential building in Mawafakiah neighbourhood

3.13 Photo Indicating Residential building in Fao neighbourhood

4.1 Household size (percentage)

4.2 The percentage of children in each household

4.3 Household income (percentage)

4.4 Percentages of the residents’ employment

4.5 The percentages of residents’ education level

4.6 Figure 4.6: The percentages of Residents’ working time

4.6 Triangulation Statistical Tests
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Choosing Research Methodology Design relevant to Research Question</td>
</tr>
<tr>
<td>3.2</td>
<td>Independents Variables</td>
</tr>
<tr>
<td>3.3</td>
<td>Questions on Secured Spaces</td>
</tr>
<tr>
<td>3.4</td>
<td>Questions on Collective Spaces</td>
</tr>
<tr>
<td>3.5</td>
<td>Questions on Supportive Spaces</td>
</tr>
<tr>
<td>3.6</td>
<td>Question on Responsive Spaces</td>
</tr>
<tr>
<td>3.7</td>
<td>Questions on Social Interaction</td>
</tr>
<tr>
<td>4.1</td>
<td>The actual percentage of social interaction among residents</td>
</tr>
<tr>
<td>4.2</td>
<td>The Relationship between social interaction and household income</td>
</tr>
<tr>
<td>4.3</td>
<td>The Relationship between social interaction and residents’ level of education</td>
</tr>
<tr>
<td>4.4</td>
<td>The Relationship between social interaction and household size</td>
</tr>
<tr>
<td>4.5</td>
<td>The Relationship between social and period of working time</td>
</tr>
<tr>
<td>4.7</td>
<td>Pearson correlation between sub-variables of responsive spaces construct and social interaction variable</td>
</tr>
<tr>
<td>4.8</td>
<td>Pearson correlation between sub-variables of secured spaces construct and social interaction variable</td>
</tr>
<tr>
<td>4.9</td>
<td>Pearson correlation between Sub-Variables of collective spaces construct and Social interaction variable</td>
</tr>
<tr>
<td>4.10</td>
<td>Pearson correlation between sub-variables of Supportive spaces construct and social interaction variable</td>
</tr>
<tr>
<td>4.11</td>
<td>Dependent and Independents Variables</td>
</tr>
<tr>
<td>4.11</td>
<td>Model Summary Regression</td>
</tr>
<tr>
<td>4.12</td>
<td>ANOVA table of regression model</td>
</tr>
<tr>
<td>Section</td>
<td>Title</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>4.14</td>
<td>Parameters of regression coefficients of independent variables</td>
</tr>
<tr>
<td>4.15</td>
<td>The means of dependent variable and independent variables</td>
</tr>
<tr>
<td>4.16</td>
<td>Correlation between dependent variable and independent variables</td>
</tr>
</tbody>
</table>
# LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLR</td>
<td>Multiple Linear Regression</td>
</tr>
<tr>
<td>PADCO</td>
<td>Community Development Group and Iraqi Central Office of Statistics and Information Technology</td>
</tr>
<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>PBUH</td>
<td>Prophet Mohammed Peace Be Upon Him</td>
</tr>
<tr>
<td>HRBs</td>
<td>High-rise Residential Buildings</td>
</tr>
</tbody>
</table>
CHAPTER ONE
INTRODUCTION

1.1 Introduction and Background of the Study

Nowadays, consideration of lack of land and the economics of cost construction have led the developers to construct the multi-families buildings. Using various types of multi-family buildings like low-rise, middle-rise and high-rise residential buildings leads to lack of social interaction among the residents. Abbaszadeh et al., (2009) found that lack of social interaction affect the residents’ satisfaction. Therefore, enhancing social interaction in multi-families buildings is the residents’ satisfaction demand; social interaction plays a main role in the residents’ lives.

Many studies argue the relationship between designing built environment such as urban planning and design, and social life of residents in a neighbourhood. This study provides empirical and theoretical approaches to understand the relationship between the physical environment characteristics and the social aspect of the residents. In the western literature, the effect of built environment on social interaction is represented in two theories; Incivility theory and Sense of Community. However, Islamic literature clarified two forms of traditional neighbourhood theories explaining the relationship between built environment and social interaction social solidarity, Brotherhood or One nation (Ummah) and “the theory of prevention the harming of public rights” (la Darar Wala Dirar) as the Prophet Mohammed (PBUH) mentioned in the holy Quran (details in chapter 2). All these theories attempt to
understand the effect of built environment on residents’ social interaction in a neighbourhood.

A considerable amount of literature has been published on the relationship between built environment and behaviour. Studies on urban planning and design, as well as community and environmental-psychological research have attempted to explain the link between human behaviour and built environment, especially features of spatial design and their effects on human behaviour. Moreover, many studies have shown that spatial design feature of any built environment, such as hospitals, schools, workplaces, and neighbourhood could influence on the uses of spaces, as well as social relationships among people and human behaviour (Hill, 1996; Rapoport, 1982; Rapoport, 1987; Whyte, 1980).

Social interaction plays a major role in human life. There are a large volume of published studies describing the roles of social aspect with satisfaction, and the factors that have influence on neighbourhood satisfaction such as residents interact and cohesion among them (Robinson, Lawton, Taylor, & Perkins, 2003a; Talen & Shah, 2007). For example, Abbaszadeh et al., (2009) explained that there is a strong relationship between social interaction of residents and built environment of a neighbourhood.

There are several theories that are used to evaluate the influence of physical built environment on human behaviour. Marans and Spreckelmeyer (1981) have explained how built environment influences human behaviour. One study mentioned that this particular model explains human behaviour based on two factors; people’s
perception of objective environmental attributes and assessments of objective environmental attributes (Jin et al., 2010).

This study focuses on the spatial design requirements of low-rise residential to enhance social interaction in Basra city of Iraq.

This chapter explores housing in Iraq and spatial design of multi-family buildings that are used in designing the low-rise residential buildings in the neighbourhood in Iraq, and the housing typology of Basra city.

1.2 Problem Statement

According to the Iraqi Ministry of housing and construction, there are around three millions housing unit shortages in all states of Iraq (Municipality of Basra, 2010). According to the Municipal of Basra city the housing shortage is two hundreds fifth thousands (250,000) units (Municipality of Basra, 2010). The Iraqi Ministry of housing and construction has planned to cover the housing demand in Basra and all Iraq. However, planners of the maniple of Basra have seen that there is not enough land to cover the huge number of housing shortage. Thus, they issued the rationalization of use land and encourage developers to use low-rise residential neighbourhood. Some studies clarified the built environment of multiples stories residential buildings have effect negatively on residents social interaction. Many years ago, Festinger, Schachter and Back (1950) demonstrated that housing form influences friendship patterns among residents. Moreover, many studies in over the world have detected the negative influence of multi-stories building on residents’
social interaction. Such as in, Toronto found that high-rise apartment dwellers tended to choose friends outside the building, from school or work (Michelson, 1977). In Hong Kong, a high-rise, high-density city the sense of residential community is low and that where respondents had a very strong sense of neighbourhood, their interactions were often work- or school-based, with colleagues or schoolmates living in the same area (Forrest, La Grange & Ngai-Ming, 2002). Further, German and Italian high-rise respondents reported knowing about twice as many families as those in low rises (Williamson, 1978). However, knowing more neighbours did not translate to close relations; the German (but not Italian) high-rise residents reported less visiting and borrowing among their neighbours, and that their closest friends were more likely to be colleagues at work than neighbours. Both the German and Italian respondents said that they would like to have more friends among their neighbours, and that they believed they would have more friends if they lived in a smaller building. In Iran, Abbaszadeh (2009) mentioned the high-rise residential building in Tehran have high shortage of social interaction. In similarity, The researcher clarify this problem of spatial designs of low-rise residential neighbourhood in Iraq having a negative effect on the residents’ social interaction, by comparing the residents’ social interaction among the residents with the single houses neighbourhood. Therefore, the main problem in this research is in the lack of social interaction in low-rise residential buildings neighbourhoods. Can architecture solve this problem? The research is going to answer this question.
1.3 Research Question

In relation to the research problem of this study, the main research question is:

**Main RQ:** What are the spatial design requirements to enhance social interaction in low-rise residential buildings neighbourhoods in Basra city?

**Sub-RQ 1:** What are the effects of neighbourhood urban design on residents’ social interaction?

**Sub-RQ 2:** What are recommendations to architects in order to enhance social interaction in low-rise residential buildings neighbourhoods?

1.4 Research Objectives

Based on the research questions, the two objectives of this study are:

1. To understand the effect of urban neighbourhood design on social interaction of residents
2. To determine spatial design features can enhance the level of social interaction among residents in new low-rise residential buildings neighbourhood.

1.5 Research Framework

This study used the theory of Marans and Spreckelmeyer (1981) as the conceptual model to identify the effects of the neighbourhood built environment of low-rise residential buildings on residents’ social interaction and to find out a proper built environment ‘spatial design’ that could enhance social interaction in the
neighbourhood. Marans and Spreckelmeyer's (1981) model shows that there is a direct relationship between the objective environmental attributes (spatial design) and the behavioural response (Musin Hur, 2008). Moreover, Jin, et al., (2010) mentioned that the model of Marans and Spreckelmeyer, (1981) explores human behaviour based on two factors; people's perception of objective environmental attributes and assessments of objective environmental attributes.

This study uses the conceptual framework of Marans and Spreckelmeyer (1981) to create the hypotheses model of the study. However, this study would only test one part of this framework objective environmental attribute. In particular, the study tested the influence of objective environmental attribute which is represented in this study as spatial design features, on residents’ social interaction.

The hypothesis of this study is; there is a significant relationship between spatial design characteristics of low-rise residential buildings neighbourhood and social interaction.

1.6 Thesis Organization

The scholar has divided this thesis into five chapters. The first chapter introduces the background of the study, Basra city and the status of housing in Iraq, housing in Iraq and spatial design features of multi-families’ residential buildings. Moreover, this chapter also explains the problem statement, main research question and objectives of this study.
Next, Chapter 2 reviews the literature of the thesis; it discusses the relationship between the built environments and residents. This discussion takes two parts: the first part discusses theories of western literature, and the second part discusses eastern and Islamic theories of traditional neighbourhoods. Moreover, the factors affect the residents’ social interaction are explored in this chapter.

This is followed by Chapter 3, which illustrates the conceptual framework of this study, and chooses the research variables. Moreover, it also illustrates the method used for measuring the research, sampling size and data collection strategy.

Meanwhile, Chapter 4 demonstrates the descriptive analysis of the data, and also discusses the findings of the study and the effects of independent variables (secured, collective, responsive, supportive spaces) on dependent variables residents’ social interaction.

In addition, Chapter Five presents the summary and recommendations to further enhance the social interaction among residents in low-rise residential buildings neighbourhoods. Copies of the questionnaire, as well as the descriptive results, regression and correlation between variables are attached in the appendices.
REFERENCES


Tavassoli. (1998). *The principles and techniques of urban design in iran (vol.1)*. Tehran, Iran: Ministry of housing & urban development of Iran.


