THE ROLE OF SOCIAL AND BUILT CAPITALS IN FORMATION OF SENSE OF COMMUNICATION WITHIN SUSTAINABLE NEIGHBORHOOD
(NARMAK NEIGHBORHOOD, IRAN)

NILOOFAR FOROUZESH NAHAD

A thesis submitted in fulfillment of the requirements for the award of the degree of Master of Science (Urban Design)

FACULTY OF BUILT ENVIRONMENT
UNIVERSITI TEKONONOLOGI MALAYSIA

JANUARY 2012
To my beloved mother and father
ACKNOWLEDGEMENT

The writing of this dissertation has been one of the most significant academic challenges I have ever had to face. Without the support, patience and guidance of the following people, this would not have been completed. It is to them that I owe my deepest gratitude.

I especially want to thank my advisor, Dr. Dilshan Remaz Ossen, for his guidance during my research and study at University Technology of Malaysia. His perpetual energy and enthusiasm in research had motivated all his advisers, including me. In addition, he was always accessible and willing to help his students with their research. As a result, research life became smooth and rewarding for me.

I was delighted to interact with PROF.Dr Syed Zainol Abidin Idid which was like a second advisor to me, both for my dissertation and for my academic life while at the University Technology Malaysia, and I would like to express my gratitude for that. As is the practice in other country, I refer to him as my “advisor.”

My deepest gratitude goes to my family for their unflagging love and support throughout my life; this dissertation is simply impossible without them. I am indebted to my father for his care and loves as typical father in Iranian family. He worked industriously to support the family and spare no effort to provide the best possible environment for me to grow up. He had never complained in spite of all the hardships in his life. I cannot ask for more from my mother as she is simply perfect. I have no suitable word that can fully describe her everlasting love to me. I remember her constant support when I encountered difficulties. Mother, I love you. I feel proud of my sister and her family. They had been a role model for me to follow unconsciously when I was a teenager and have always been one of my best counselors. I especially want to thank my love Reza, whose adore and encouragement allowed me to finish this journey, already has my heart so I will just give him a heartfelt “thanks”.

Also, to all my stat friends who have lent a hand to complete this thesis, especially to Mahboubeh Rakhshanifar how for the words of encouragement and for helping me out with my simulations, thank you from the bottom of my heart.

Finally, I would like to thank all those who contributed to the dysfunction of some of the communities I observed, which helped me become interested in the topic of “sense of Communication in sustainable neighborhood” in the first place. Last but not least, I would like to thank God for helping me throughout my life and helping me overcome the challenges which I have faced up to now. God has made my life more bountiful. May your name be exalted, honored, and glorified.
ABSTRACT

Sense of communication is one of the most important social specifications of sustainable neighborhood that have fallen due to new development and the influence of Western architecture (Zarabadi and Khazae, 2009). This sense has a long history especially in Islamic countries like Iran which is the presenter of several Homogeneous neighborhoods that were shaped based on residence social communications which preserved the Characteristics of cultural, religious, and ethnic values of the area. Despite high level of consideration to social communications in designing Old Iranian cities, most of new planned urban areas are inappropriate in term of social values such as social interactions, interrelationship, communications and etc. and even worth, survival of old and historical neighborhood in Iran is recently under threat by loss of sense of communication among local residents. This study aims to identify and determine the elements which result in creation of communication sense in order to create and maintain a socially sustainable neighborhood. Hence, the main outcome of this study is obtained through comparison between social and built capitals of neighborhoods which are considered as the most effective elements in creation of sense of communication. Doing this research, a quantitative approach has adopted in which two measurements strategies are conducted including: (i) interview with local people, (ii) survey questionnaire. Narmak Neighborhood in Tehran City - Iran is chosen since sense of social communication between neighbors had been noticeably presented in old times in this area; however, unfortunately, this valuable sense is declined and faded out significantly through recent developments.
ABSTRAK

Naluri komunikasi adalah salah satu kepentingan spesifikasi sosial di dalam pengekalan kawasan kejiranan yang telah jatuh bersesuaian dengan pembangunan dan pengaruh seni bina barat (Zarabadi and Khazae, 2009) yang baru. Naluri ini mempunyai sejarah yang panjang terutamanya di dalam negara-negara islam seperti Iran di mana perwakilan sebahagian kejiranan homogen yang dibentuk adalah berdasarkan kepada komunikasi sosial penduduk yang mana sifat budaya, agama, dan nilai etniknya kawasan tersebut dipelihara. Walaupun kadar pertimbangan adalah tinggi terhadap komunikasi sosial di dalam perkaa Bandar lama Iran, kebanyakkan perancangan kawasan-kawasan urban adalah tidak sesuai dalam perkara nilai sosial seperti interaksi soasial, hubungkait, komunikasi dan lain-lain, dan walaupun teruk, kadar hidup kawasan kejiranan lama dan bersejarah di Iran kini adalah di bawah ancaman kepupusan naluri komunikasi dikalangan penduduk tempatan. Kajian ini focus kepada mengenalpasti dan menyatakan elemen-elemen yang memberi kesan kepada kewujudan naluri komunikasi bagi mencipta dan mengekalkan pengekalan komunikasi sosial kawasan kejiranan. Seterusnya, hasil utama kajian ini adalah diperolehi melalui perbandingan di antara sosial dan pembinaan ibu kawasan kejiranan yang dipertimbangkan sebagai elemen- elemen efektif dalam penciptaan naluri komunikasi. Melakukan kajian ini, pendekatan kuantitatif diterima pakai dalam dua strategi pengukuran yang dikawal iaitu (i) temubual bersama orang tempatan, (ii) kajian soal selidik.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DECLARATION</td>
<td>ii</td>
</tr>
<tr>
<td></td>
<td>DEDICATION</td>
<td>iii</td>
</tr>
<tr>
<td></td>
<td>ACKNOWLEDGEMENT</td>
<td>iv</td>
</tr>
<tr>
<td></td>
<td>ABSTRACT</td>
<td>v</td>
</tr>
<tr>
<td></td>
<td>ABSTRAK</td>
<td>vi</td>
</tr>
<tr>
<td></td>
<td>TABLE OF CONTENT</td>
<td>vii</td>
</tr>
<tr>
<td></td>
<td>LIST OF TABLES</td>
<td>xi</td>
</tr>
<tr>
<td></td>
<td>LIST OF FIGURES</td>
<td>xii</td>
</tr>
<tr>
<td>1</td>
<td>INTRODUCTION</td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Problem Statement</td>
<td>2</td>
</tr>
<tr>
<td>1.2</td>
<td>Problem Background</td>
<td>4</td>
</tr>
<tr>
<td>1.3</td>
<td>Significance of Research</td>
<td>6</td>
</tr>
<tr>
<td>1.4</td>
<td>Aim of the Study</td>
<td>7</td>
</tr>
<tr>
<td>1.5</td>
<td>Objective</td>
<td>7</td>
</tr>
<tr>
<td>1.6</td>
<td>Research Questions</td>
<td>8</td>
</tr>
<tr>
<td>1.7</td>
<td>Research Method</td>
<td>8</td>
</tr>
<tr>
<td>1.8</td>
<td>Scope and Limitation</td>
<td>9</td>
</tr>
<tr>
<td>1.9</td>
<td>Chapter Organization</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>Sense of Communication as Primary Aspect of Sustainable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neighborhood</td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Neighborhood</td>
<td>13</td>
</tr>
</tbody>
</table>
2.1.1 Definition of Neighborhood

2.1.2 Different Type of Neighborhoods

2.1.3 Neighborhood in Iran

2.1.3.1 Traditional Neighborhood in Iran

2.2 Social Interaction in Sustainable Neighborhood

2.3 Role of Sense of Communications in Sustainable Neighborhood

2.4 What is Sense of Communication

2.4.1 Different Dimensions of Communication

2.5 Community

2.5.1 Criteria and Features of Communities

2.6 Social Capital

2.6.1 Low Social Capital

2.6.2 High Social Capital

2.6.3 Community and Social Capital

2.7 Built Capital

2.7.1 Definitions and Elements of Built Capitals

2.7.2 Land use Elements

2.7.2.1 Neighborhood Center

2.7.3 Street Elements

2.7.3.1 Street scape

2.7.3.2 Path

2.7.4 Building Elements

2.8 Summery

3 Case study

3.1 Historical Background of Narmak Neighborhood – Iran

3.2 Morphology of Narmak Neighborhood

3.2.1 Construction and Development Process of Narmak

3.2.2 Narmak evolution

3.3 Population Morphology

3.4 Narmak as Sustainable Neighborhood
3.4.1 Tangible Elements and Communication 51
  3.4.1.1 100 Squares and Communications 51
  3.4.1.2 Hafthoz square and Communications 52
  3.4.1.3 Facilities and Communications 54

3.5 Accessibility Level and Communications 59

3.6 Social capital: Social Fabric of Narmak 62
  3.6.1 Generally Social Characteristic of Neighborhood 64

3.7 Built Capital 64
  3.7.1 Building Elements 65
  3.7.2 Land use 67
  3.7.3 Street Element 69

3.8 Raising New Challenges in Narmak Neighborhood 70

3.9 Summary 71

4 Research Method and Analysis
  4.1 Research Method 74
  4.2 Data Collection 76
    4.2.1 Features which have worse situation compared to the past 77
    4.2.2 Elements which have better situation compared to the past time 78
    4.2.3 Features and elements which have similar situation with past time 80
  4.3 Discussion 81
  4.4 Summary 84

5 Conclusion and Further Research
  5.1 Conclusion 85
  5.2 Further Research 88
    5.2.1 Social Capitals 88
      5.2.1.1 Enhancing Community Strength 89
      5.2.1.2 Preserving Culture and Local wisdom 90
      5.2.1.3 Expanding People's Participation 91
      5.2.1.4 Expanding Individual and Collective activities 91
      5.2.1.5 Attention to Social justice 92
5.2.1.6 Widely shared understanding and vision of healthy living environment 92
5.2.1.7 Another View to the Social Capitals 92

5.2.2 Built Capitals 93
5.2.2.1 Less cars, more Accessible 94
5.2.2.2 General Further Research on Built capitals 94

5.2.3 Summary 95

References 96
Appendix A
Appendix B
LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE NO.</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Characteristics of Community</td>
<td>27</td>
</tr>
<tr>
<td>3.1</td>
<td>Population data of Narmak Neighborhood</td>
<td>49</td>
</tr>
<tr>
<td>3.2</td>
<td>The number of green spaces in the district</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>The questions which have negative resulted in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>comparison between the past 15 years and present time</td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>The questions which have Positive resulted in</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>comparison between the past 15 years and present time</td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>Comparative effective features in communication</td>
<td>79</td>
</tr>
<tr>
<td>4.3</td>
<td>wellbeing elements with desirable and strong</td>
<td>82</td>
</tr>
<tr>
<td>5.1</td>
<td>community outcomes</td>
<td>90</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE NO.</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Types of Capital to which Hart applies the concept of sustainability</td>
<td>28</td>
</tr>
<tr>
<td>3.1</td>
<td>The map of 22 districts in Tehran, and the location of district 8</td>
<td>43</td>
</tr>
<tr>
<td>3.2</td>
<td>A view of squares is located in the middle of the residential area</td>
<td>44</td>
</tr>
<tr>
<td>3.3</td>
<td>Constructing and expanding process of district 8</td>
<td>46</td>
</tr>
<tr>
<td>3.4</td>
<td>View of square number 31 and housing around it</td>
<td>47</td>
</tr>
<tr>
<td>3.5</td>
<td>View of square number 31 and housing around it</td>
<td>47</td>
</tr>
<tr>
<td>3.6</td>
<td>View of Haftoz square, Istgahdaftar, 30metri, Golbarg, and Resalat highway</td>
<td>48</td>
</tr>
<tr>
<td>3.7</td>
<td>A view of level of social communications</td>
<td>51</td>
</tr>
<tr>
<td>3.8</td>
<td>A view of Haftoz square and its surroundings</td>
<td>53</td>
</tr>
<tr>
<td>3.9</td>
<td>Different view of Haftoz square, shopping, and Nabi mosque in Narmak Neighborhood</td>
<td>54</td>
</tr>
<tr>
<td>3.10</td>
<td>Fadak Park</td>
<td>55</td>
</tr>
<tr>
<td>3.11</td>
<td>A view of two important Parks in Narmak neighborhood</td>
<td>56</td>
</tr>
<tr>
<td>3.12</td>
<td>A view of Nabi mosque in Haftoz square</td>
<td>57</td>
</tr>
<tr>
<td>3.13</td>
<td>Different view of facilities in Narmak neighborhood</td>
<td>58</td>
</tr>
<tr>
<td>3.14</td>
<td>A view of accessibility in squares</td>
<td>59</td>
</tr>
<tr>
<td>3.15</td>
<td>A view of sidewalk in Narmak neighborhood</td>
<td>60</td>
</tr>
<tr>
<td>3.16</td>
<td>A view of subway stations location</td>
<td>61</td>
</tr>
<tr>
<td>3.17</td>
<td>Views of Bus Rapid Transit in Narmak neighborhood which makes travel easier for people</td>
<td>61</td>
</tr>
<tr>
<td>3.18</td>
<td>A view of bicycle station in square number 17</td>
<td>62</td>
</tr>
<tr>
<td>3.19</td>
<td>A view of Moharram month In the Narmak neighborhood</td>
<td>63</td>
</tr>
<tr>
<td>3.20</td>
<td>A view of Nabi Mosque which is popular not only in the neighborhood but also is admired in the city of Tehran</td>
<td>63</td>
</tr>
<tr>
<td>3.21</td>
<td>A view of residential buildings in Narmak neighborhood</td>
<td>66</td>
</tr>
<tr>
<td>3.22</td>
<td>A view of the Placement of houses in the squares, the number of doors and windows, and the amount of outside’s view from the residents</td>
<td>67</td>
</tr>
<tr>
<td>3.23</td>
<td>A view of House in the Narmak neighborhood</td>
<td>68</td>
</tr>
<tr>
<td>3.24</td>
<td>A view of Hafthoz square and people communications</td>
<td>68</td>
</tr>
<tr>
<td>3.25</td>
<td>A view of daily central shopping in squares</td>
<td>69</td>
</tr>
<tr>
<td>3.26</td>
<td>A view of square which have been became to car parking nowadays</td>
<td>71</td>
</tr>
<tr>
<td>4.1</td>
<td>Method Outline</td>
<td>75</td>
</tr>
<tr>
<td>4.2</td>
<td>The figure are shown the socio-physical features, which affect on survival of sense of communication in a neighborhood level</td>
<td>81</td>
</tr>
<tr>
<td>4.3</td>
<td>Reason resulting in lack of sense of communication in Narmak Neighborhood</td>
<td>83</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

Currently, sense of communication is one of the most important specifications of sustainable neighborhood that have fallen due to new development and the influence of Western architecture (Zarabadi and Khazae, 2009). The uncontrolled spread of urbanization in recent years, in metropolitan area has influenced not only the physical condition of neighborhoods, but they also have been appearing in the social dimension. Sustainability of Neighborhood relies on social, economic, and environmental management. Sustainability of urban neighborhoods as the smallest unit in cities plays an important role in sustainability of whole city context (Choguill, March 2008). Looking at the physical characteristics of neighborhoods, regardless of social features is impossible. So, in order to create a sustainable neighborhood, two-way relationship between these two important variables is considered.
1.1 Problem Statement

Mentally and physically All people prefer to live in suitable environment. These days, this suitable environment is so-called “sustainable” which has become increasingly significant to be considered in the planning of urban areas. Numerous definitions have been generated, national policies initiated, new institutions created to monitor this so-called sustainability and whole industries have been started to ensure that the materialistic demands arising from pursuit of sustainability are met; however, in this process social demands of people are seemingly less considered.

Cities are seen to be sustainable if, in the words of the World Commission for Environment and Planning (1987, p. 8), they meet ‘the needs of the present without compromising the ability of future generations to meet their own needs’ (Tosun, June 2001). In order to measure progress toward this desirable state of sustainability, measurable indicators are required which evaluate urban efforts in the fields of the economic, the social, the technical and the environmental (Choguill, 1993).

Yet cities cannot be considered sustainable if their component parts, such as neighborhoods, do not meet sustainability criteria. As the neighborhoods are as significant as any element in the cities, increasingly, in the battle they might be seen as the frontline of sustainability. Yet interestingly, this is not a new discovery, as sustainability of neighborhoods has been of concern to planners since many times ago, yet the definition and criteria of this notion is still challengeable (Choguill, 2008).

Sustainable neighborhood means to create a good quality of life including all administrative, economic, social features without creating barriers for future generations (Hodseti, 2005). Social sustainability of neighborhood is achieved by emphasis on three main factors as following:
- Social relations and communication (through social communities and groups)
- Increase of social interaction in public realm
- Design of public space in order to increase the social interactions

Having looked at these three factors, it is felt that these days there is no sufficient component for human needs in structure of cities compared to old cities where the life has been seen in the past. Therefore, the effort has failed to create sustainable neighborhoods (Zarabadi and Khazae, 2009).

Along this, sense of communication as the basis of social sustainability of neighborhoods has a long history especially in Islamic countries like Iran. This history presents several Homogeneous neighborhoods that were shaped based on residence social communications which preserved the Characteristics of cultural, religious, and ethnic values of the area. These social relations in neighborhoods were shaped in the forms of daily meetings, social groups or communities such as cultural and religious communities, etc, which these communities were the main reason of survival of the neighborhood. Neighborhood is an important community resource, particularly for older people (Schwirian and Schwirian, October 1993). The main problem of this study rises when during the time especially after Industrial Revolution the importance of social communication has been lost in design of cities for instance Iranian neighborhoods.

In old days, Iranian cities were shaped based on formation of social relations in neighborhoods as the primary core of cities. Also, most cities were constructed due to social interaction of people (Zarabadi and Khazae, 2009). These days, despite the significant role of social communications in formation and survival of Iranian cities in old days, most of urban areas are inappropriate in term of social values such as social interactions, interrelationship, etc. in other words, Most of the neighborhoods in Iran have not been designed based on the indicators of
sustainability such as identity, sense of belonging, livability, accessibility, diversity and safety (Azizi, 2006).

Following the main problem identified in this study which is about loss of sense of communication in modern life of neighborhood, Narmak Neighborhood has been chosen as the case to be studied. Narmak is one of the popular old sustainable neighborhood which seemingly lost its social sustainability during time being, has been placed in north-east of Tehran, the capital city of Iran. This area is clear example of neighborhood which firstly was built based on providing social factors; however, all old social relations and interactions of neighbors are going to diminishing due to new developments. The study focuses on the role of sense of communication on sustainability of Narmak Neighborhood.

1.2 Problem Background

The first controversial word that is discussed in terms of overlapping layers is neighborhood. The American planning Association (1998) has defined a neighborhood as a diverse, dynamic social and economic entity with unique characteristics, which are recognized by residents of both the neighborhood and community at large (Cowan, 2005). A new urbanism Lexicon defines a neighborhood as an urbanized area having a diverse range of building types, thoroughfares and public open spaces accommodating a variety of human activity (McLaughlin-Ryan, 2000). Their definition of ‘neighborhoods’ adopted in this guide is based on resident perceptions. As such they are normally residential areas of distinctive identity, often distinguished by name, and bounded by recognizable barriers or transition areas such as railway lines, main roads, parks, and the age or
character of buildings (often associated with social or land-use differences), (Barton et al., 2003).

In the past, neighborhood had shaped the cities as the basic unit of organization and consistent with the concept of community. But with a new look to city in beginning of modernity, so that almost all experts in the late 19th and early 20th century believed that interrelationship between the people have changed and neighborhood comes from appropriate administrative divisions of the urban fabric, not from social and cultural values and beliefs. So we see, with the social and economic developments in the world happened, the meaning of neighborhood has changed from social communications to the geographical boundaries.

The significance of sense of communication is appeared in loss of social interactions and values in modern life. Sense of communication leads to two way interaction of people and their surrounding environment which this interaction has the fundamental role in formation of a socially healthy environment. Moreover, the term “environment” is defined by presence and interaction of human being.

Within the boundary of neighborhood, interaction between people which results in formation of sense of communication is formed in two ways of formal and informal communications. Informal commendations are daily communication between neighbors through informal activities and meetings. Formal communications between neighbors in neighborhood are formed through social communities like religious groups.

As a value, community is characterized with “connectedness, through a sense of membership, through shared activity and decision-making and through a shared understanding of the world”. The emphasis is on sharing, cooperation and social
solidarity (Butcher and Hugh, 1994). As communities are the valuable resources and platform of human interactions and communications.

The notion of community is not equal to the term neighborhood. Neighborhood is the area involving people that are similar in terms of the social, economic and demographic. But the community, based on the interdependence between human beings together, created a social cohesion that comes from uniformity and similarity of customs, tastes, and thought (Knox and Pinch, 2000). Hence, by presence of communities in neighborhood, neighbor’s close relations are encouraged, formed and maintained.

There are fundamental elements which have significant role in creation of sense of communication and even community itself which are clarified in next chapters of this study.

1.3 Significance of Research

What was the value of architecture in the cities had been shaped based on human needs and interactions through communities. Unfortunately, following the developments of recent decades and disregard to human needs, cause to the loss of cultural and social values especially for younger generations. Studies have shown that older people who are embedded in active social networks tend to have better physical and mental health than older adults who are less involved with other people (Thompson and Krause, 1998). Thus, in order to highlight physical and mental health for younger generations, it is necessary to study the criteria of social networks and communications in new urban environments.
In other words, due to the loss of social communication and according to population growth and modernization that are formed without paying attention to human relationships, social life of cities has changed to unhealthy and isolated life. So, creation of the neighborhoods according to human in today life is one of the important factors that should be reviewed. In this study, this fact is more investigated through structures and characteristics of social communication in order to create and preserve a socially sustainable neighborhood.

1.4 Aim of the Study

This study aims to identify and determine the causes of creation of communication sense in Narmak neighborhood in order to create and maintain a socially sustainable neighborhood.

1.5 Objective

- To identify the effect of social communication of the neighbors on sustainability of neighborhood.
- To identify the social features that affects on sense of communication.
- To determine the physical attributes of Narmak Neighborhood that influence on sense of communication
- To determine the effect of new developments on sense of communication of the Narmak Neighborhood during past 15 years.
1.6 Research Question

Back to main problem identified in this study, Following questions are identified in order to explore in possible causes of sense of communication in neighborhood level:

- What are the social and physical elements which affect sense of communication?
- What are the effects of sense of communication on formation of sustainable neighborhood with reference to Narmak?
- How has been the result of new development on resident’s sense of communication?
- How can we prevent Narmak neighborhood from losing sense of communications due to new developments?

1.7 Research Method

As the purpose of the research is more exploratory, a quantitative approach has adopted to answer the research question. Two measurements strategies are conducted including: (i) interview with people who are living in the Narmak neighborhood more than 15 years, (ii) survey questionnaire with people to obtain the data. The study area contains the popular neighborhood in Tehran city by the name of Narmak neighborhood which is located in North-East of Tehran. It can be an appropriate place for studying the sense of communication in a sustainable neighborhood. Because it was built as sustainable neighborhood and social communication between neighbors had been noticeably presented in this
neighborhood. But unfortunately, due to some factors the sustainability of this neighborhood has declined and the social communication has faded out significantly.

1.8 Scope and Limitation

In this study, at first step principles and fundamentals of sense of communities on formation of social sustainability of the neighborhood would be derived from secondary literature review to identify the negative effect of decreasing the social interactions between neighbors on social sustainability of the neighborhood. This work focuses on social and physical elements which affect creation of sense of communication in Narmak Neighborhood by reviewing the literature, morphology, and evolution process and questionnaire data.

1.9 Chapter Organization

In order to explore in generation of sense of communication in Narmak Neighborhood, following steps are done:

In chapter 1 of this study problem statement, aims, objective and research questions are briefly explained. As explained, lack of sense of communication is noted as the main problem identified in this study.
Chapter 2 explains relevant terms and notions such as neighborhood, interaction of people and environment, definitions of sense of communication, social capital, built capital and etc. Two dependent features which have significant role on creation of sense of communication are introduced as:

- Social capitals
- Built capitals

These features are directly two-way interacted which mentioned interaction would affect on communication levels among neighborhood.

Chapter 3 examines the sense of communication in Narmak Neighborhood based on the framework of literature review including social and built capitals. Narmak Neighborhood is chosen as the case of this study because of unique situation among the other neighborhoods in Tehran in terms of sustainability criteria; however, during past 15 years, valuable level of sustainability of this neighborhood has been considerably decreased.

Chapter 4 analyzes the communication level in a comparative basis between 1995 and 2011 based on questionnaire data. As discussed and shown in this chapter, almost 78% of respondents whom are chosen from local residents of Narmak Neighborhood believe that level of social capitals is considerably decrease during past 15 years; in contrary, built capital levels which are almost physical elements of environment including building, land use and street elements, is considerably increased compared to past 15 years.
Chapter 5 concludes communication elements including social and built capitals in Narmak Neighborhood. As clarified, these two elements are in two-way relation with each other. And finally, relevant recommendations are noted in order to enhance sense of communication in this neighborhood.
REFERENCES


Elkington 1997. Social And Cultural Sustainability. 139.


Shie, E. 2005. *With City And Neighborhood In Iran*, Tehran, Elm O Sanaat University.

Taghvaee, F. 2010. Social Dimension. Iran, Yazd: University Of Yazd, Iran.


