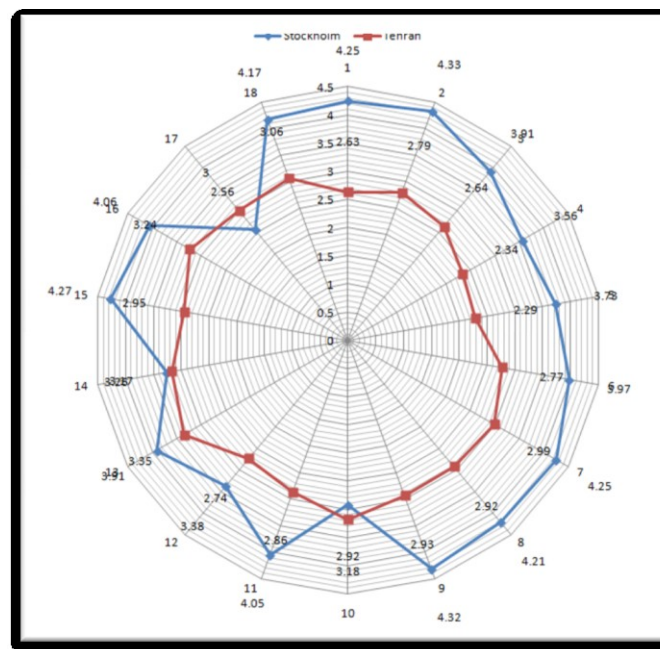


Feeling of safety and fear in a city

A comparison study between two city districts in Tehran and Stockholm

Hamidreza Mazlaghani



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A comparison study between two city districts in Tehran and Stockholm

Känsla av trygghet och rädsla i en stad

En jämförande studie mellan två stadsdelar i Teheran och Stockholm

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Dedication

This work is dedicated to the memory of my beloved late father

Abstract

The present study is designed to compare the feeling of safety and fear in two capital cities of Iran and Sweden. According to the studies which have done in recent decades, some features of residential environment at the street block and neighborhood are relevant to increasing the feeling of safety and reducing crime rates and crime-related outcomes, such as fear of crime and neighborhood confidence. *Crime prevention through environmental design (CPTED/DOC)* is a multi-disciplinary approach to deter criminal behavior through environmental design. The strategies of this guideline focus on the settings in which crimes occur and on techniques for reducing vulnerability in these settings. Therefore in this study to compare the feeling of safety and fear in two sample districts of Tehran and Stockholm, it has been tried to evaluate the safety feeling of inhabitants in relation with some physical characteristics which have crime-preventive or fear-reducing effects. In this purpose several environmental factors that have been mentioned in CPTED and function to allow inhabitants feel secure and something about the fear of crime, rate of crime, and experience of crime were assessed. The research instrument in this study was a questionnaire consisting of a series of questions for the purpose of gathering information from 200 Iranian and 100 Swedish respondents from two sample districts of Stockholm and Tehran. In the next step the data were extracted and analyzed by computer software. The results showed the safety feelings between Tehran and Stockholm are different. Statistical hypothesis tests confirmed that feeling of safety was significantly different between the people who lived in Stockholm and Tehran. All indicators demonstrate Stockholm inhabitants were feeling more secure rather than people who lived in Tehran. According to the results of this study, fear of crime, crime experience and rate of crime may be influenced by factors in the built environment. In other words the physical characteristics of neighborhood found to be associated with the fear of crime, experience of crime and rate of crime. As this comparison study concluded, in two communities with various designs based upon CPTED inhabitants have different feeling of safety and fear, therefore in Iran it should be given much more attention by government and city planners.

Keywords: SAFETY, CRIME, FEAR, fear of crime, gender, Perception of safety, Fear, victim, Insecurity, Urban safety, Iran, Tehran, Janatabad, Sweden, Stockholm, Sundbyberg

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“Neither a man nor a crowd nor a nation can be trusted to act humanely or to think sanely under the influence of a great fear.”

Bertrand Russell¹ (1872-1970)

¹ http://www.brainyquote.com/quotes/authors/b/bertrand_russell.html

1. Introduction:

For the first time, in the post-cold war era the term “human security” has been popularized. In the early 1990s the United Nation Development Program (UNDP) drew attention to the human security which links various humanitarian, economic, and social issues. The purposes of this program were diminishing social vulnerability, assuring security, and alleviating human suffering.

Human security defined as the condition of being protected from danger and the state of being free from fear.

Fear is an emotion induced by a threat perceived by living unpleasant entities. “Fear has never been absent from the human experience” and closely related with stress responses. Although these reactions are necessary to deal with dangers and serve survival by generating appropriate behavioral and physical responses, the “feeling of safety” is very important. The “sense of safety” can be considered as one of the main necessities of life that can be experienced at different levels, such as safety at home, safety in neighborhood, safe in city, national security and international security. (Aalbers and Rancati, 2008)

In traditional society, risk was usually associated with natural forces. Today, risk is related to human intervention through technology and the role of governments. (Aalbers and Rancati, 2008)

Although a city offers more possibilities to satisfy one’s needs, compare to other choice for living such as rural areas, it is providing some difficulties such as it is characterized by problems, like air and water pollution, criminality, and over population. Previous studies have been shown city life’s harmful effects on the inhabitants reside in urban areas.

Feeling safety is a socio-physical phenomenon. The both society and physical elements are parts of a successful safe and secure space for living.

The defensible space theory is a theory for the first time hypothesized by an architect and city planner Oscar Newman about crime prevention and neighborhood safety. The theory developed in the early 1970s.

In his theory he explained how the height of buildings in New York has a relationship with the rate of crime. As defined by Newman, defensible space is "a residential environment whose physical characteristics—building layout and site plan—function to allow inhabitants to become ensure about their security." Thereafter it has absorbed attention of city planners and designers as well as whom employed innovative or promising approaches for improving criminal justice. There are some researches which have focused on the physical characteristics of cities to assess whether it can affect the feeling safety and the rate of crime in a city.

Researches show feeling of insecurity? Insecurity is higher in larger cities than smaller towns, among individuals who are less integrated with their community and also among women. (Zani et al., 2001)

Especially over the last decades the design of urban spaces has induced more feeling of insecurity than safety. (Ellin, 2001) Other studies have shown that the cities environment and overstimulation in urban areas decrease the feeling of safety and increase level of aggression, poor self-control, and mental attention impairment.

Currently finding the best way to tackle the problem of the insecurity is a favorite topic for urban planner. In this way the interaction between people and their environment is an interesting subject.

This study is conducted to assess the key factors making cities safer and less mentally damaging.

The idea of interaction of human being with their environment was one of my favorite subjects as well. So I have decided to work on the topic of feeling of fear and safety in city. I think it is an interesting subject to be explored since the feeling of fear and safety is with everybody who lives in cities. I believe urban as planners or designers we should be aware of the quality of what we create in urban spaces if they induce positive feeling or not.

Present study is conducted to compare the opinion of inhabitants of two cities about their feeling related to some factors like physical features of the environment which can affect the feeling of safety in the urban areas.

1.1. Background

In the early 1970s for the first time the theory of defensible space theory was developed by an architect and city planner Oscar Newman. Throughout his study, Newman focused on explaining his ideas on social control, crime prevention and public health in relation to community design. He evaluated some evidences support the assumption surrounding the feeling of safety in urban areas and published his guidelines about the crime prevention and neighborhood safety.

There are five factors that make a defensible space:

- 1- Territoriality – the idea that one's home is sacred
- 2- Natural surveillance – the link between an area's physical characteristics and the residents' ability to see what is happening
- 3- Image – the capacity of the physical design to impart a sense of security
- 4- Milieu – other features that may affect security, such as proximity to a police substation or busy commercial area
- 5- Safe Adjoining Areas - for better security, residents obtain higher ability of surveillance of adjoining area through designing the adjoining area

Thereafter some studies have designed which showed the “environmental approach” can modify the physical environment to reduce the opportunities for crime to occur. In these studies environmental approach included situational crime prevention techniques and broader urban planning initiatives. (Crawford, 1998) ; (Hughes et al., 2002) ; (Sutton)

1.2. Situational crime prevention

Based upon the famous premise that “crime is often opportunistic”, Situational crime prevention has been formed. This endorsed concept shows that change in contextual factors can limit the opportunities for offenders to engage in criminal behavior (Tonry and Farrington, 1995).

In situational prevention a range of measures highlight the importance of targeting very specific forms of crime which can be committed in certain circumstances (Clarke, 1997). This compromises identifying, modifying and controlling the environmental or situational factors associated with certain types of crime (Cornish and Clarke, 2003).

In urban regeneration programs, crime prevention is an increasingly important consideration. Therefore broader planning initiatives include CPTED and urban renewal projects, are formed

looking for the factors which can limit the opportunities for crime through the design and management of the built and landscaped environment (Crowe, 2000);(Kitchen and Schneider, 2007)

This includes various strategies including modifying the built environment to create safer places that are less crime prone or can make people feel safer.

As environmental design has a major influence on crime prevention and feeling of safety in inhabitants, it is possible to compare two communities' safety through these elements. It would be a key factor to alter the policies and practices to improve the safety feeling of people who are living in an urban area (such as by designing public spaces that encourage large numbers of users and provide greater natural surveillance, or by designing pedestrian thoroughfares that are well lit and do not create places for potential offenders to hide).

Therefore present study is designed to compare the opinion of inhabitants of two cities about their feeling related to some factors can affect the feeling of safety in their urban area.

Although, there were some researches which have done about feeling of safety and fear of crime in cities separately no study has been found which compare these items in two different environments. while previous research have been showed impact of some environmental factors besides the individual characteristics on "feeling of safety" are warranted, sufficient evidences were available to support this work.

I tried to design a study based on similarities and differences in two various sample communities which its results and conclusion can broad urban designers horizons. Moreover it could serve an initial step for more future studies.

1.3. Type of study

This analytic observational research is a cross-sectional study since the search is looking for the factors at a single point of time (Bryman, 2012). With the intention of making the process more understandable I used the method which is described by (Bryman and Bell, 2011) on quantitative research method. In this way some theories and hypotheses designed. To design and do this study several steps which have been shown in Figure 1 was followed.

1.4. Research instrument

The research instrument in this study was "questionnaire". A questionnaire consists of series of questions has been designed. To measure intensify of feeling about the questions, for some questions Likert scale have been used. For rest of questions yes/no answer was used.

1.5. *Select research site*

The locations of the study were two cities, Tehran and Stockholm. There are some similarities between these two cities. Both of them are the capital cities of the countries, they are the biggest cities of Iran and Sweden. Because of the development of both cities suburbs have been grown during the time. In this study Janatabad from Tehran and Sundbyberg from Stockholm have been selected since both areas belong to suburb and most of the populations of these parts have been moved there from the other parts. As they have different physical and social environment, it would be interesting to examine the answers of respondents in different context.

1.6. *Respondents*

The respondents were selected randomly through the inhabitants of staying in locations of study. In this purpose respondents were asked whether they were staying there (in the neighborhood Janatabad and Sundbyberg) or just were the passerby.

1.7. *Data collection*

The data was collected by filling up the self-completion questionnaire from 200 respondents in Tehran and 100 in Stockholm.

1.8. *Data extraction*

The data were extracted from the questionnaires and summarized in data extraction tables. For this purpose SPSS and EXCELL software have been used. In addition in this step the data were quantified and got ready for data analysis.

1.9. *Data analysis*

In this step the hypotheses of research were tested by the use of several statistical tests and the results of study were compared between two cities of Tehran and Stockholm.

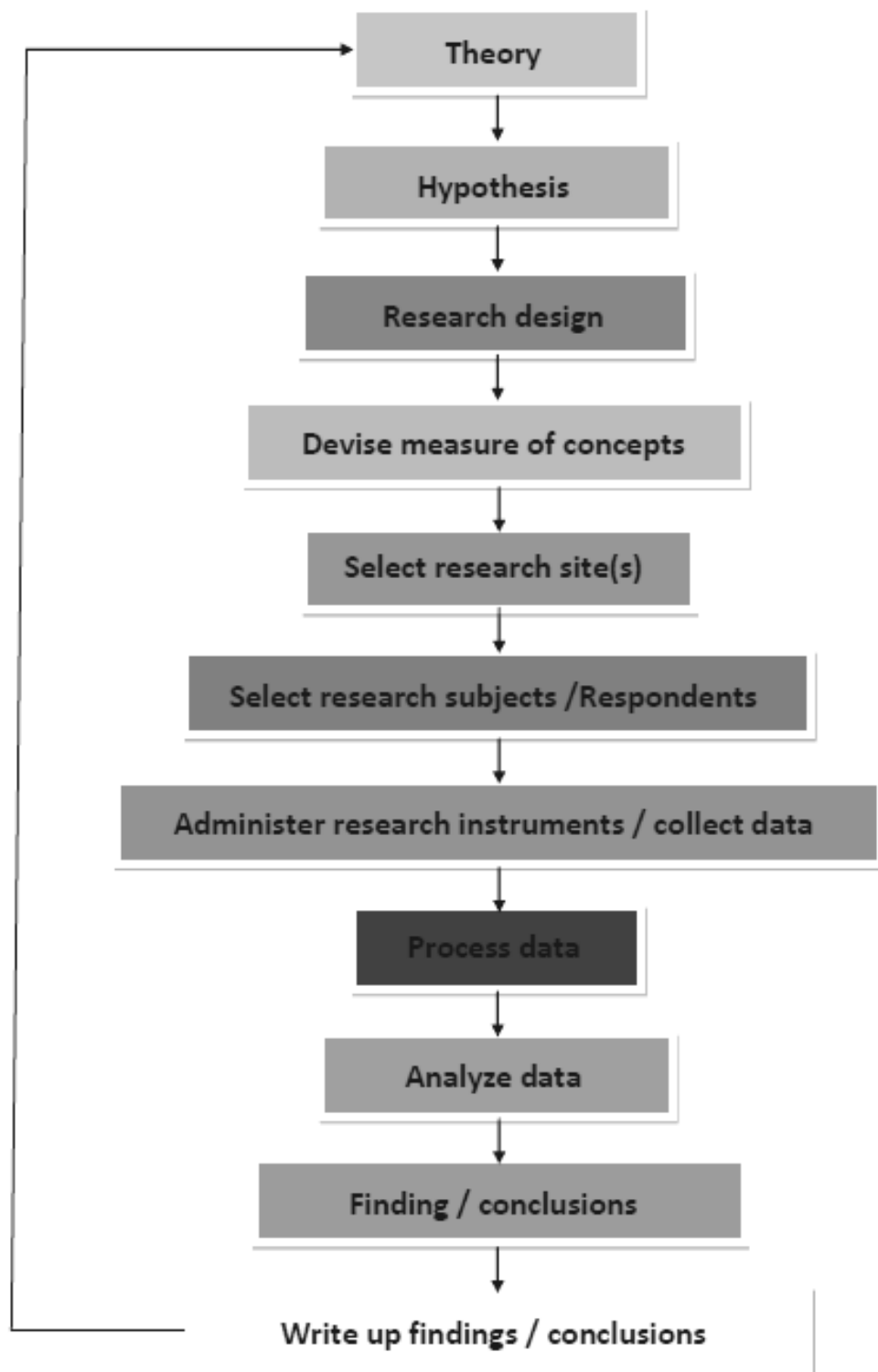


Figure 1: The process of the quantitative research (Saunders et al., 2011)

1.10. Objectives

1.10.1. Primary objective

The main aim of this study is to compare the feeling safety and fear between inhabitants of two sample parts of Tehran and Stockholm.

The case studies that are selected both have some similarities.

- They are both part of capital cities in Iran and Sweden, but they are kind of suburb.
- The population is mixed with people from different cultural background

1.10.2. Secondary objectives

To find out whether:

- 1: The feeling of safety and fear are different between single and married people.
- 2: The feeling of safety and fear are different between men and women.
- 3: The feeling of safety and fear are different between employed and unemployed.
- 4: The feeling of safety and fear are different between native and nonnative inhabitant.
- 5: The feeling of safety and fear are different between owners and tenants.
- 6: The feeling of safety and fear are different between people with various educational levels.
- 7: The feeling of safety and fear are different between people from different age groups.
- 8: The feeling of safety and fear are different between type of crime and gender.
- 9: There is a significant relation between feeling fear situation and gender.
- 10: There is a significant relation between feeling scared and gender.
- 11: There is a significant relation between being subject of crime and gender.
- 12: There is a relation between safety of physical environment and fear of crime.
- 13: Is there a relation between safety of physical environment and experiencing of crime
- 14: There is a relation between safety of physical environment and rate of crime.
- 15: There is a relation between fear of crime and experiencing of crime.
- 16: There is a relation between fear of crime and rate of crime.
- 17: There is a relation between experiencing of crime and rate of crime
- 18: There is a significant difference in fear of crime by gender.

- 19: There is a significant difference in experiencing of crime by gender.
- 20: There is a significant difference in rate of crime by gender.
- 21: There is a significant difference in fear of crime by marital status
- 22: There is a significant difference in experiencing of crime by marital status.
- 23: There is a significant difference in rate of crime by marital status.
- 24: There is a significant difference in feeling safe between livings in their neighborhoods or somewhere that is famous in media from rate of crime.

1.11. Research questions

- 1: Are the feeling of safety and fear different between inhabitants of two sample parts of Tehran and Stockholm?
- 2: Is there a significant difference in feeling safe between single and married.
- 3: Is there a significant difference in feeling safe between men and women.
- 4: Is there a significant difference in feeling safe between employed and unemployed.
- 5: Is there a significant difference in feeling safe between native and nonnative inhabitant.
- 6: Is there a significant difference in feeling safe between owners and Tenants.
- 7: Is there a significant difference in feeling safe between educational levels.
- 8: Is there a significant difference in feeling safe between age groups.
- 9: Is there a significant relation between type of crime and gender.
- 10: Is there a significant relation between feeling fear situation and gender.
- 11: Is there a significant relation between feeling scared and gender.
- 12: Is there a significant relation between being subject of crime and gender.
- 13: Is there a relation between safety of physical environment and fear of crime.
- 14: Is there a relation between safety of physical environment and experiencing of crime
- 15: Is there a relation between safety of physical environment and rate of crime.
- 16: Is there a relation between fear of crime and experiencing of crime.
- 17: Is there a relation between fear of crime and rate of crime.
- 18: Is there a relation between experiencing of crime and rate of crime
- 19: Is there a significant difference in fear of crime by gender.
- 20: Is there a significant difference in experiencing of crime by gender.

- 21: Is there a significant difference in rate of crime by gender.
- 22: Is there a significant difference in fear of crime by marital status
- 23: Is there a significant difference in experiencing of crime by marital status.
- 24: Is there a significant difference in rate of crime by marital status.
- 25: Is there a significant difference in feeling safe between livings in their neighborhoods or somewhere that is famous in media from rate of crime.

1.12. Hypotheses

- Hypothesis 1: There is significant difference in the feeling of safety between Tehran and Stockholm.
- Hypothesis 2: There is significant difference in the feeling of safety between single and married.
- Hypothesis 3: There is significant difference in the feeling of safety between men and women.
- Hypothesis 4: There is significant difference in the feeling of safety between employed and unemployed.
- Hypothesis 5: There is significant difference in the feeling of safety between native and nonnative inhabitant.
- Hypothesis 6: There is significant difference in the feeling of safety between owners and Tenants.
- Hypothesis 7: There is significant difference in the feeling of safety between educational levels.
- Hypothesis 8: There is significant difference in the feeling of safety between age groups.
- Hypothesis 9: There is significant relation between type of crime and gender.
- Hypothesis 10: There is significant relation between feeling fear situation and gender.
- Hypothesis 11: There is significant relation between feeling scared and gender.
- Hypothesis 12: There is significant relation between being subject of crime and gender.
- Hypothesis 13: There is a relation between safety of physical environment and fear of crime.
- Hypothesis 14: There is a relation between safety of physical environment and experiencing of crime
- Hypothesis 15: There is a relation between safety of physical environment and rate of crime.
- Hypothesis 16: There is a relation between fear of crime and experiencing of crime.
- Hypothesis 17: There is a relation between fear of crime and rate of crime.
- Hypothesis 18: There is a relation between experiencing of crime and rate of crime
- Hypothesis 19: There is significant difference in fear of crime by gender.

Hypothesis 20: There is significant difference in experiencing of crime by gender.

Hypothesis 21: There is significant difference in rate of crime by gender.

Hypothesis 22: There is significant difference in fear of crime by marital status

Hypothesis 23: There is significant difference in experiencing of crime by marital status.

Hypothesis 24: There is significant difference in rate of crime by marital status.

Hypothesis 25: There is significant difference in the feeling of safety between livings in their neighborhoods or somewhere that is famous in media from rate of crime.

The noticed Factors in questionnaire designing and hypothesis were extracted from CPTED/DOC² and it was a main source of standard for my research.

² Crime Prevention Through Environmental Design / Designing Out Crime

1.13. General information about the selected sites in Iran and Sweden

1.14. IRAN

Iran also known as Persia is a country in southwest Asian, country of mountains and deserts. Eastern Iran is dominated by a high plateau, with large salt flats and vast sand deserts. Comprising a land area of 1,648,195 km² (636,372 sq mi), it is the second-largest nation in the Middle East and the 18th-largest in the world; with over 77 million inhabitants, Iran is the world's 17th most populous nation. (www.Iran.ir)

Iran is ranked as an upper-middle income economy by the World Bank.(GDP \$818.653 billion , GDP \$357.221 billion (2010))³

And Iran has one of the highest urban growth rates in the world. From 1950 to 2002, the urban proportion of the population increased from 27% to 60%. The United Nations predicts that by 2030, 80% of the population will be urban.⁴

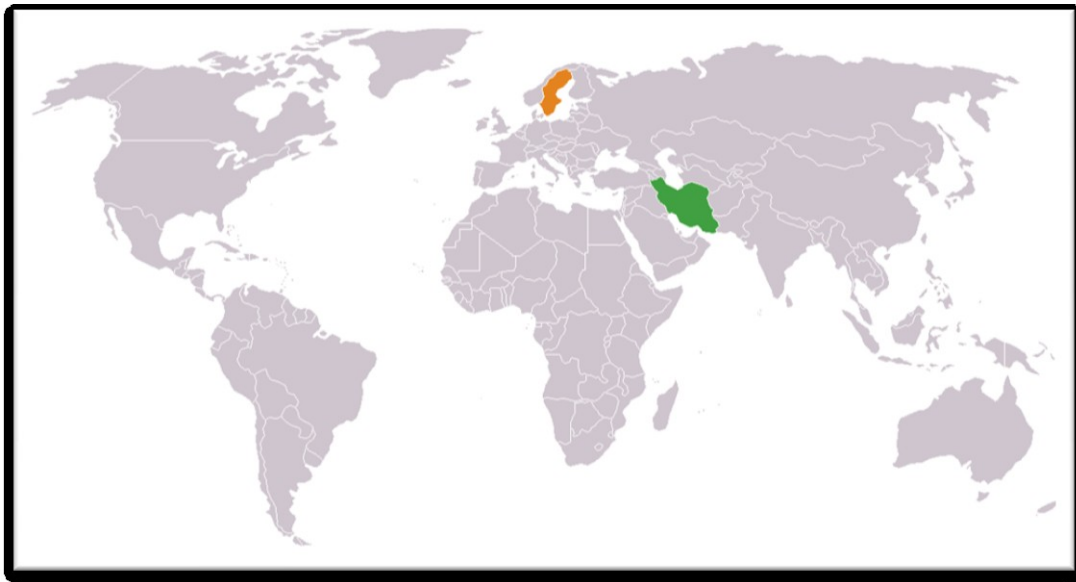


Figure 2: Geographical location of IRAN & SWEDEN in the world ⁵

1.14.1. Tehran

Tehran is the capital, the country's largest city and the political, cultural, commercial and industrial center of the nation. Over two hundred years as the capital of Iran, Tehran has developed from a 4.2 square kilometer city in 1727 with 3000 inhabitants into a tightly packed city With a population of around 8.3 million and surpassing 14 million in the wider metropolitan area, over 868 square kilometers. The city is located at latitude 35.40 N and longitude 51.26 E in the Central Iranian Plateau and is ordered

³ Wikipedia

⁴ "Islamic Azad University". Retrieved 28 January 2008". Wayback.archive.org. 2007-11-10. Retrieved 2013-06-21.

⁵ Wikipedia

by the Alborz Mountains in the north and by the Kavir desert in the south. Tehran is Iran's largest city and urban area, and the largest city in Western Asia.⁶



Figure 3: Map of IRAN⁷

Tehran is spread out over flatlands and mountain slopes, having an elevation difference of 800 meters from north to south. Parallel to the topographical variation there is a great gradient of wealth and life-style for Teheran's inhabitants.

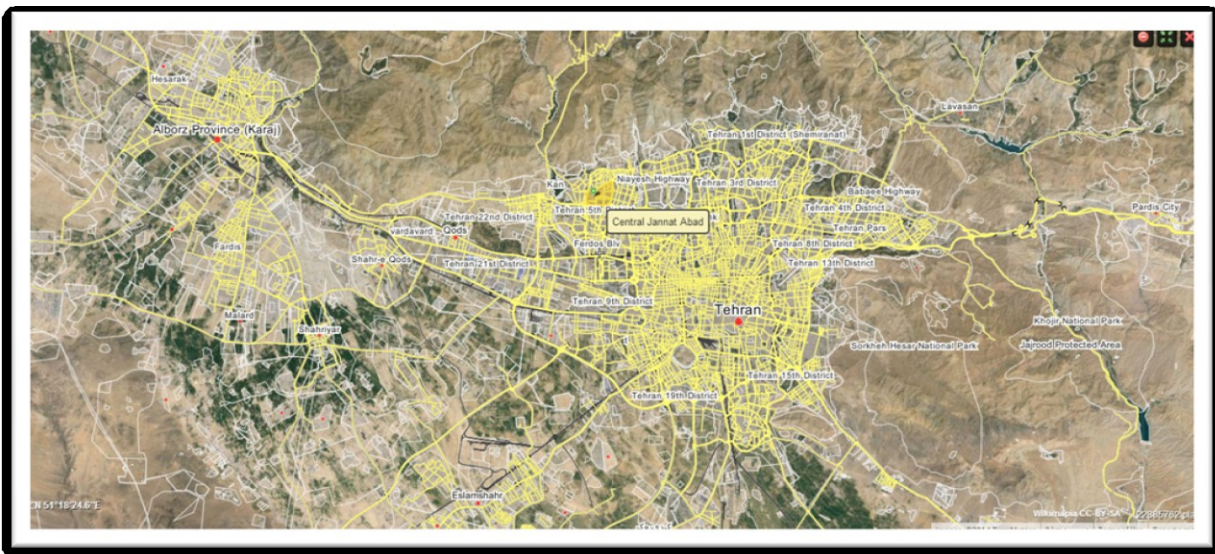


Figure 4: map of Tehran⁸

Figure 5: Tehran municipality LOGO

TEHRAN.IR



⁶ Municipality of Tehran, 2013

⁷ Google map

⁸ Google map

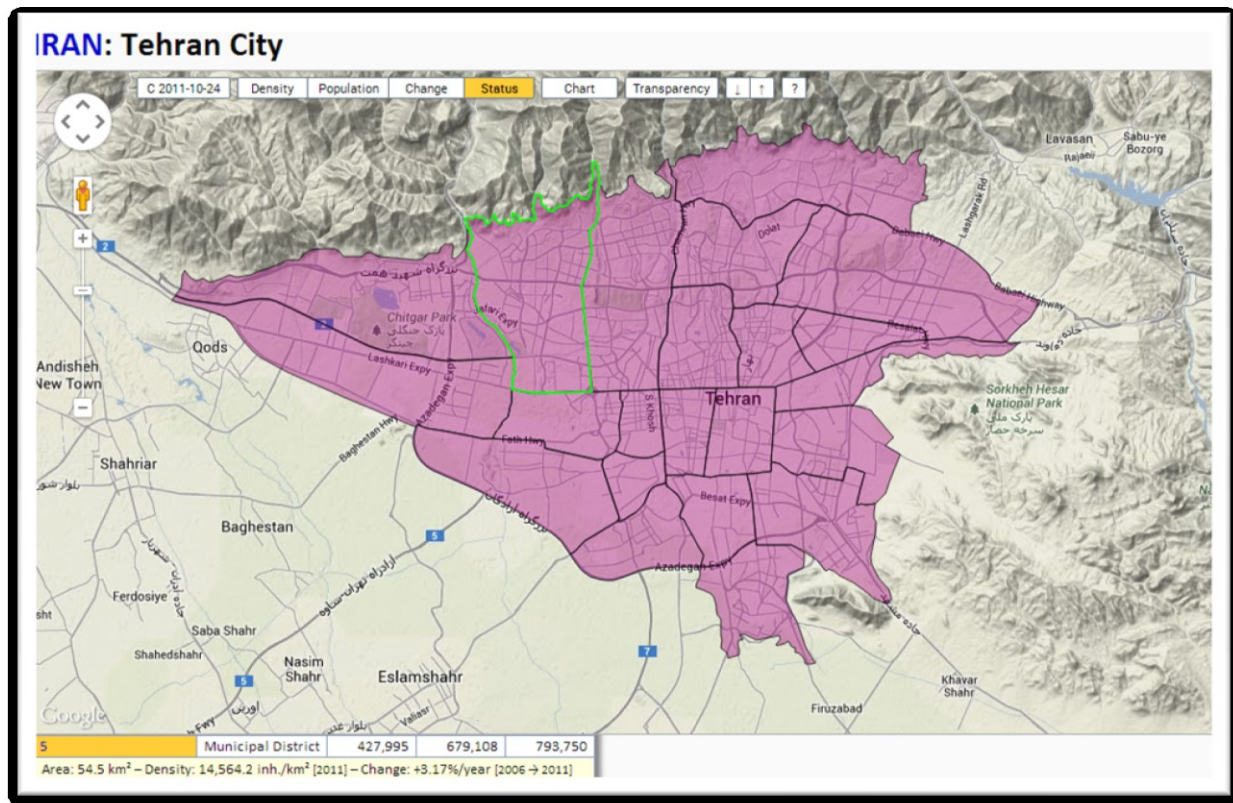


Figure 6: Location of Tehran's district 5⁹

Tehran is divided into 22 districts, each of which is administrated by their own district mayors who send the report to the mayor of metropolitan Tehran.

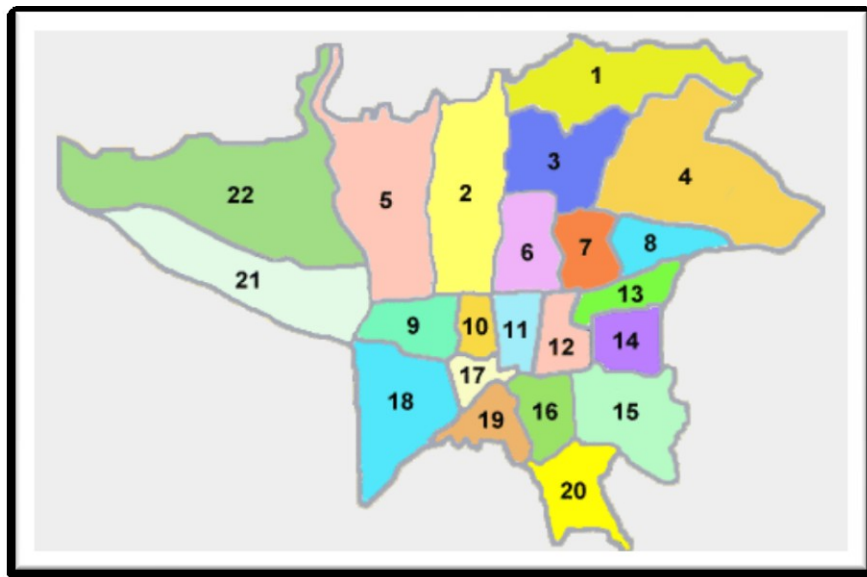


Figure 7: 22 districts of Tehran

⁹ <http://www.citypopulation.de/php/iran-tehrancity.php>

1.14.2. District 5:

District 5 of Tehran Municipality located in northwest of the capital. The northern part is located on the height of the Alborz Mountain slopes and its southern part ends to Karaj Special road. it is one of the biggest districts among 22 districts of Tehran with 5287.1 hectare area. The district 5 is divided into smaller parts as 7 regions (Nahie) and 29 neighborhoods. The case study of this research is Central and Northern Janatabad neighborhoods. The district 5 had a positive population growth rate between years 1986-1996 with 5.8% and between years 1996-2006 became 4.5%. Around 3.2% of the growth was related to immigration from outside the area and 1.3% was the natural growth.

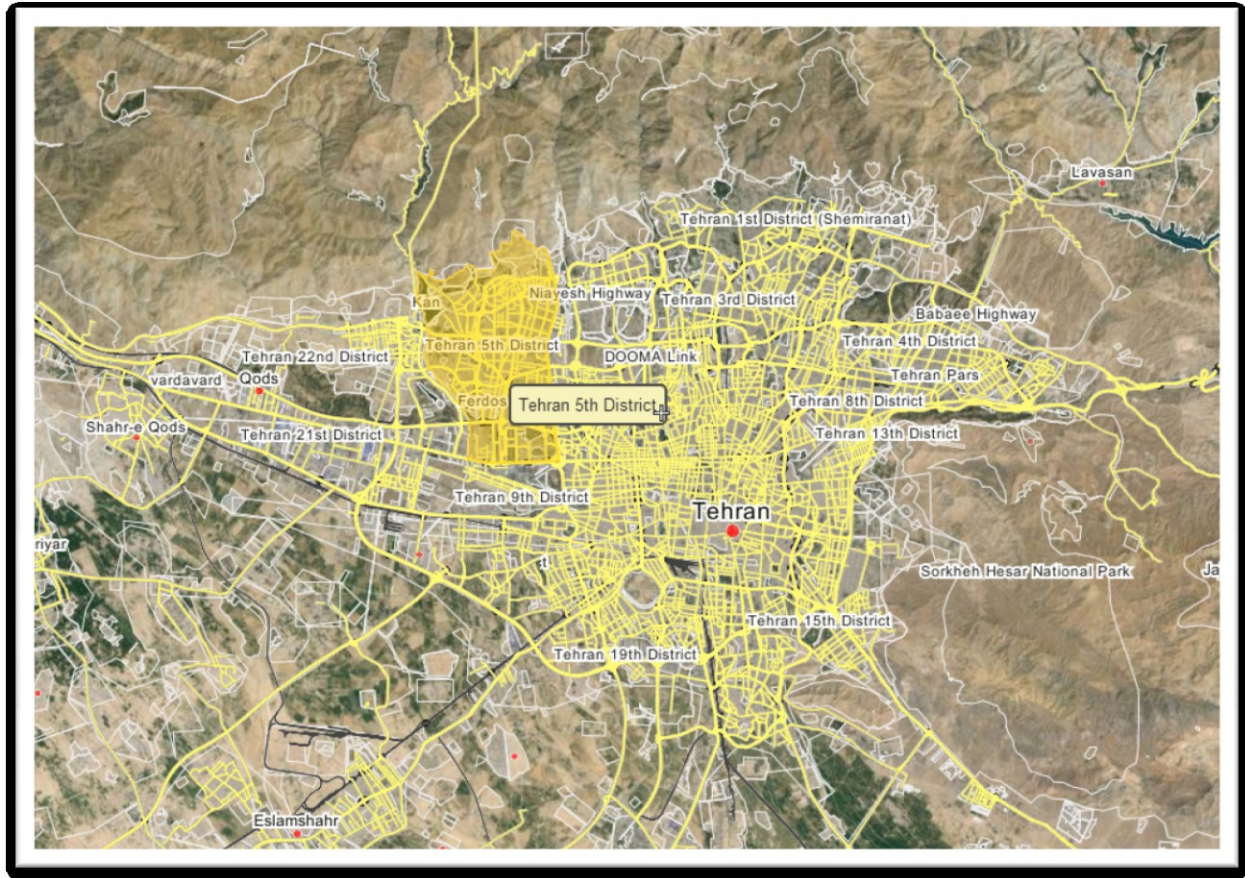


Figure 8: 5th District of Tehran ¹⁰

¹⁰ Google map

1.14.3. Janatabad:

Table 1: Information about Janatabad in district 5 of Tehran

Descriptions	District 5	JanatAbad	Central JanatAbad
District	5	5	5
Section	-	7	7
Area(ha)	۵۴۱۳,۶	772.6	177.1
Population in 2009	۷۳۸۲۸۸	156500	36500
Population growth rates (between 1996-2006)	۴,۵ %	3.8%	2.3%
Population Estimates (2013)	۸۷۴۰۲۹	173400	40800
Population Estimates (2025)	۱۱۰۸۴۶۵	197900	46870
Sex ratio (2006)	1.03 male(s)/female	1.03 male(s)/female	1.29 male(s)/female
Density of population (gross – per ha)	۱۲۴,۵	188.9	۱۹۰,۹۴

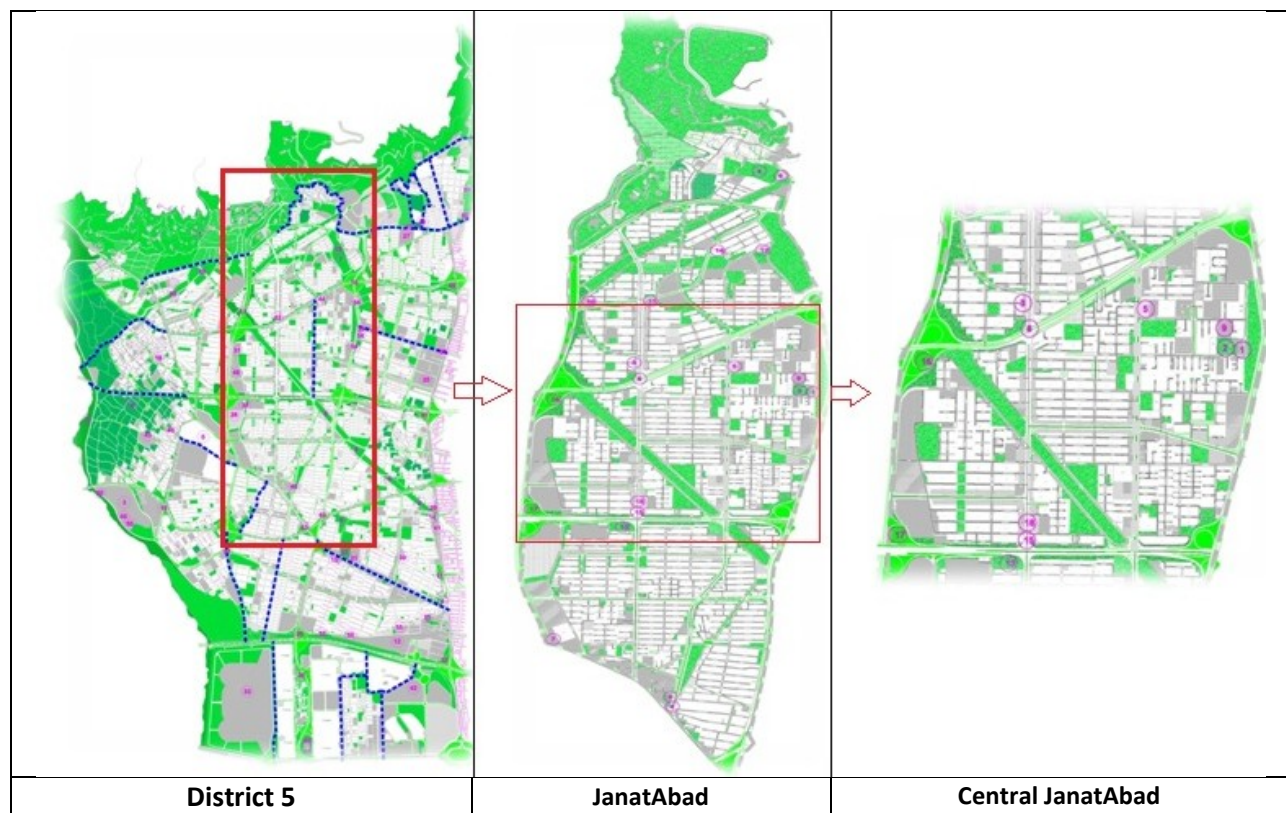


Figure 9: Location of Janatabad in district 5



Figure 10: Photos from District 5¹¹

¹¹ Tehran.ir

1.15. SWEDEN

Sweden is a Scandinavian country in Northern Europe. Sweden borders Norway and Finland, and is connected to Denmark by a bridge-tunnel across the Oresund. At 450,295 square kilometers (173,860 sq mi), Sweden is the third-largest country in the European Union by area, with a total population of about 9.6 million. Sweden has a low population density of 21 inhabitants per square kilometer (54 /sq mi) with the population mostly concentrated to the southern half of the country. About 85% of the population lives in urban areas. Sweden's capital city is Stockholm, which is also the largest city.



Figure 11: Location of Sweden in the world

1.15.1. Stockholm

Stockholm is the capital of Sweden. Stockholm is the most populous city in Sweden and Scandinavia, with 897,700 people living in the municipality and a total population of 2,163,042 in the metropolitan area, accounting for 22% of the Swedish population in 2013.

“370,482 Of the population of 765,044 in 2004 were men and 394,562 women. The average age is 39.8 years; 40.5% of the population is between 20 and 44 years. 309,480 people, or 40.4% of the population, over the age 15 were unmarried. 211,115 people, or 27.5% of the population, were married. 85,373, or 11.1% of the population, had been married but divorced. Approximately 27% of Stockholm's residents are of an immigrant or non-Swedish background. Residents of Stockholm are known as “Stockholmare”. Some of the suburbs have large populations of immigrants.”¹²

¹² Wikipedia



Figure 12: Stockholm municipality LOGO ¹³



Figure 13: Location of Stockholm in Sweden ¹⁴

¹³ Stockholm.se

¹⁴ Google map

In the entire Stockholm metropolitan area, with its 26 municipalities, the population reaches more than 2 million inhabitants. The Stockholm urban area, a purely statistical concept serving no administrative function, had a total population of 1,372,565 in 2010.

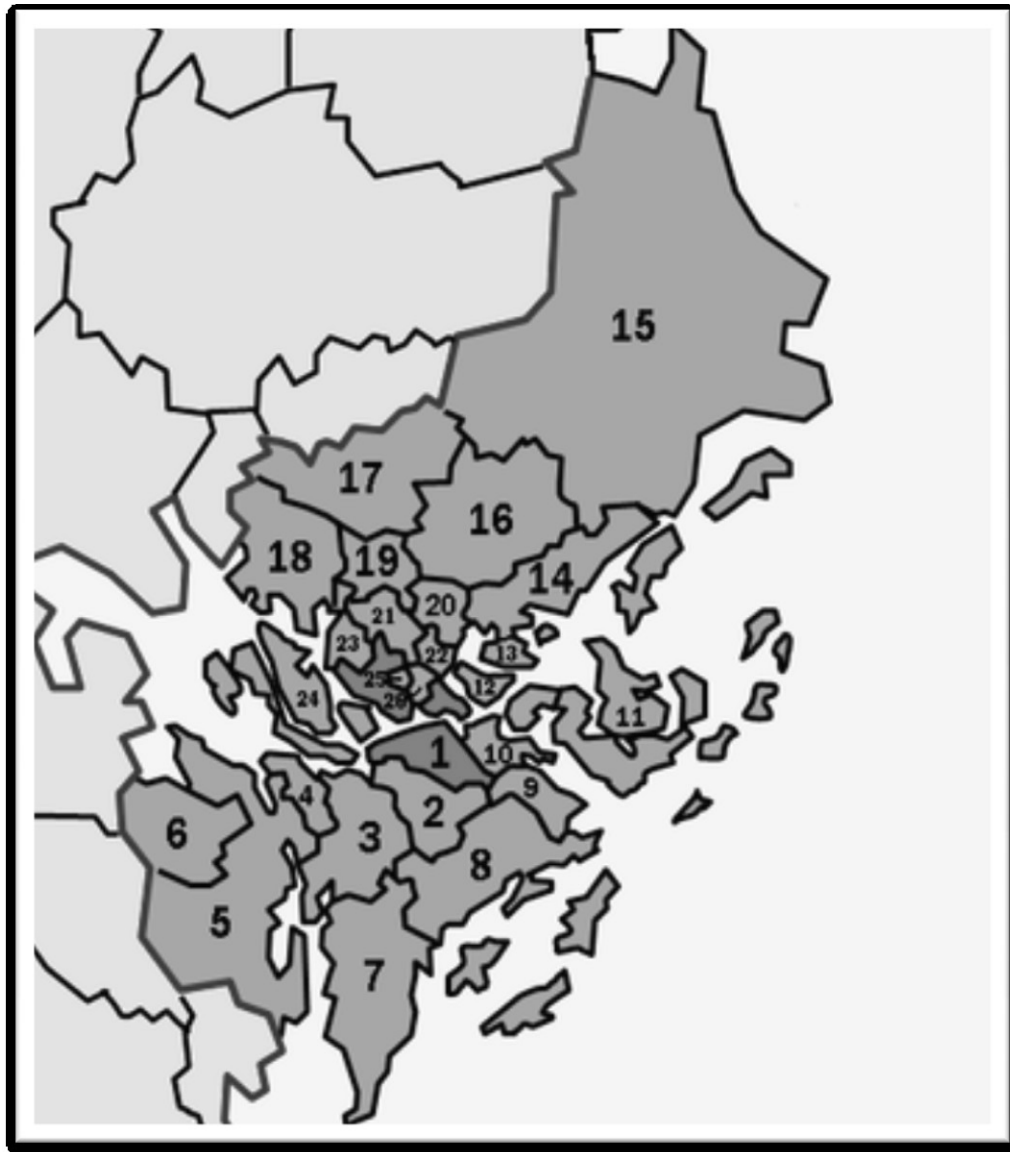


Figure 14: 26 Districts of Stockholm¹⁵

¹⁵ Wikipedia

1.15.2. Sundbyberg

Sundbyberg Municipality in Stockholm County in east central Sweden is just north of the capital Stockholm. Sundbyberg is wholly within the Stockholm urban area and has a 100% urban population. Sundbyberg, with an area of 8.83 square kilometers (3.41 sq mi), the smallest municipality in Sweden, but also the most densely populated.

Table 2: Information of Sundbyberg

Information of Sundbyberg	
District	Sundbyberg
Section	Sundbyberg
Area(ha)	881.54
Population in 2013	42626
Population growth rates (2010-2013) ¹⁶	3.33%
Population Estimates (2025) ¹⁷	60000
Sex ratio ¹⁸	0.98 male(s)/female
Density of population (gross – per ha)	48.4

¹⁶ (2010 est.) <http://www.enjoystockholm.com/cmarter.asp?doc=586>

¹⁷ <http://cleanupdownload.blogspot.se/2014/02/sollentuna-municipality-has-67500.html>

¹⁸ http://www.indexmundi.com/sweden/sex_ratio.html

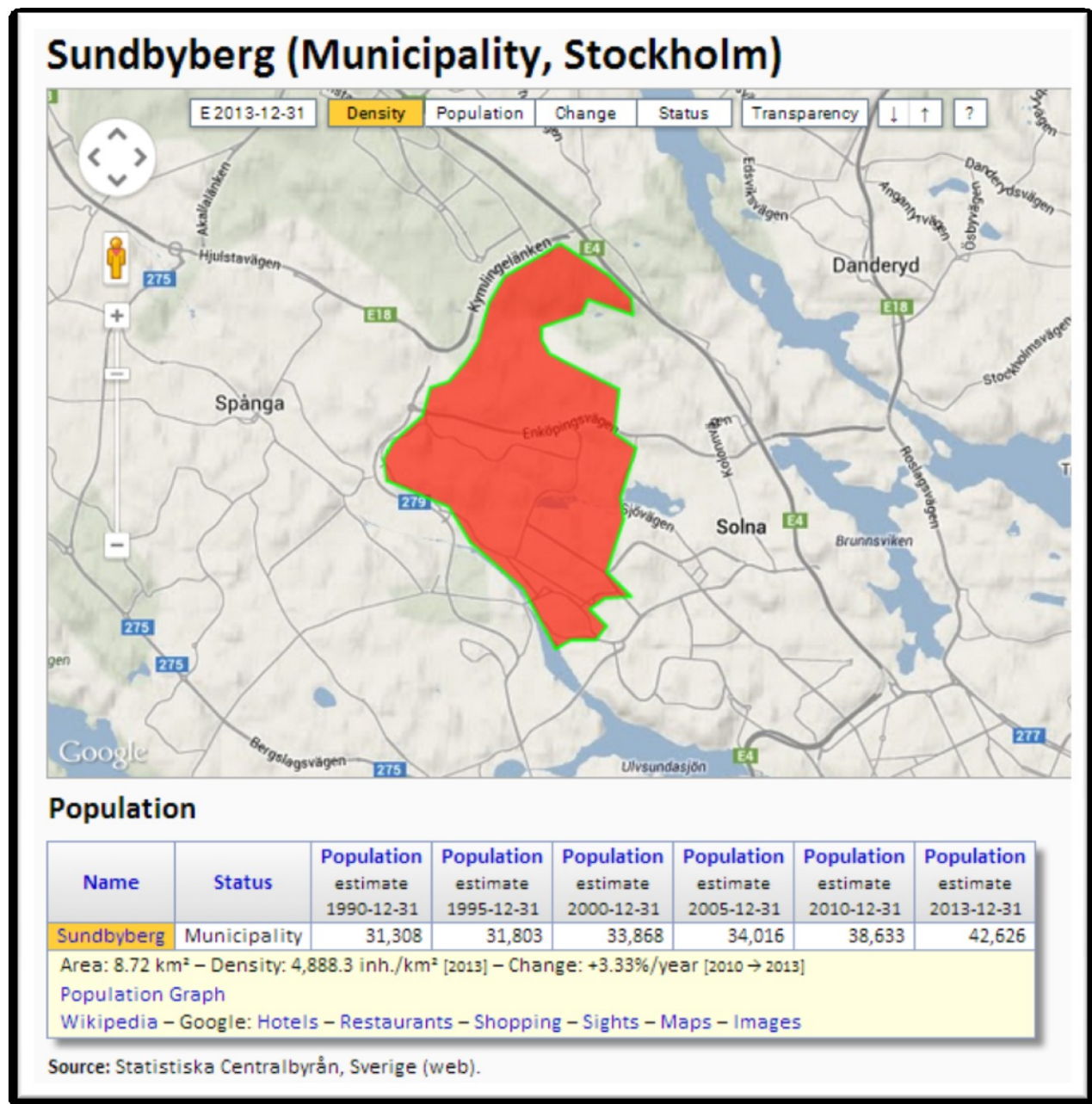


Figure 15: Sundbyberg location and population ¹⁹

1.15.3. Central Sundbyberg

“Central Sundbyberg (Centrala Sundbyberg) is considered the oldest and most original part of Sundbyberg. Its proximity to Stockholm City Centre, nostalgic environment and well-connected transportation networks has made this part of town an attractive housing area. Forms of public transport include the Stockholm Metro (Tunnelbanan), Stockholm commuter rail (Pendeltåg) and SL buses. Trams returned to Sundbyberg in 2013 after 54 years of absence when Tvärbanan was expanded

¹⁹ <http://www.citypopulation.de/>

from Alvik to Solna. Tracks are laid in one of the main streets with two stops in this area. On the small streets of Central Sundbyberg, there are boutiques, restaurants, banks and other important services.”



Figure 16: Sundbyberg maps²⁰

²⁰ Google maps



Figure 17: Photos from Sundbyberg ²¹

1.16. Outline

The structure of the remainder of this study is as follow. The subsequent section reviews existing literature and the theoretical background of the elements of my hypothesis. Next Section provides an overview of the data sample, describes the methodology, result, discussion on the results and finally conclusion, respectively.

²¹ Google maps

2. Literature review:

2.1. Definition of feeling of safety and fear in a city

The notion of safety concerns with physical protection as of dismantling violence and traffic accidents. Security also concerns broader than safety, more intangible threats for instance, terrorists, natural disaster and war. "Security is the quest for a situation or moment in which something undesirable does not exist or does not occur". (Crawford, 2002)

Fear concerns with individual's ability to control his/her own life. People are scared because of their inability to prevent the crime and/or its consequences. "Fear is embedded in the physical and social characteristics of place and the familiarity of that space to individual". (Crawford, 2002)

Criminologists define fear as "an emotional response of dread or anxiety to crime or symbols that a person associates with crime," and find a causal and direct relationship between fear and perceived risk, arguing that "to produce a fear reaction in humans, a recognition of a situation as possessing at least potential danger, real or imagined, is necessary". (Ferraro, 1995)

A sense of safety can be considered as one of the necessities of life that can be experienced at different levels, such as safety at home, safety in neighborhood, safety in city, national security and international security. (Aalbers and Rancati, 2008)

Jane Jacobs (1962) believed that when people say that a city is dangerous or is a jungle means primarily that they do not feel safe on the sidewalk. In the book *The Death and Life of Great American Cities* she described the street of a successful city neighborhood should have three main qualities:

First there should be a clear demarcation between public space and private space. Second, there must be eyes upon the streets. "The buildings on the street equipped to handle strangers and ensure the safety of both residents and strangers must be oriented to the street". And third, the sidewalk should have users on it fairly continuously. (Jacobs, 1961)

2.2. What influences crime and perceptions of safety?

Since the aim of this study is feeling fear and safety in city, it is important to investigate previous studies on perception of safety and crime. In previous researches, there are different aspects which deal with experiencing feeling of fear and safety in cities. To be more understandable I divide them into two main categories. The first group relates to physical

context, that what is important in the actual environment to experience such feelings. Second is the individual characteristic, which deals with gender, age and being of minority groups.

2.3. *Physical environment*

Here we define the physical environment as objective and perceived characteristics of the physical context that is used as public space in one neighborhood.

As Day explains, “. . . people fear other physical features, such as bushes, low lighting, and dark tunnels. Such features often limit the ‘prospect,’ or the ability to see into a place where someone may be hiding. Such features may also provide ‘refuge’ for a criminal to wait for a potential victim. Feared features are often high in ‘roundedness’ or limits on the ability to escape if danger arises. Fearful places typically display some combination of low prospect, high refuge, and high boundedness” (Zelinka and Brennan, 2001)

The quality of light:

Improving the lighting has been associated with less crime and increased pedestrian’s activity after darkness. (Foster and Giles-Corti, 2008) “Street lighting and surveillance from housing provide the opportunity for people to monitor the neighborhood” these neighborhoods may affect perceived safety” (Foster and Giles-Corti, 2008). Leowen et al. (1993) found that light in open space and access to a refugee are the most important features which were cited by students in their research (Loewen et al., 1993). Loukaitou-Sideris (2006) believes that dark public space often generates feeling of fear(Loukaitou-Sideris, 2006). It is interesting that Boomsma and Steg (2013) have suggested that people can accept lower lighting levels when social safety is not threatened. (Boomsma and Steg, 2013)

Vegetation:

Donovan and Prestemon (2012) in their research “The effect of trees on crime in Portland, Oregon” found that during two years of study (2005-2007) in general, trees in public right away are linked to lower crime rates. View-obstructing trees are associated with increased crime; while at the same time larger trees are associated with reduce crime. They reflected on “that trees may reduce crime by signaling to potential criminals that a house is better cared for and therefore, subject to more effective authority than a comparable house with fewer trees.” (Donovan and Prestemon, 2012)

Shaffer and Anderson (1983) studied college students to evaluate scenes of 180 parking lots in their research; they found that rated security was higher if the vegetation was well maintained.

They examined also examined (1984) students' perception of personal safety in 17 urban recreational sites with 160 photographs. It was found the higher visibility and more developed park features the more perceived security (Shaffer and Anderson, 1985). Also Kuo (1998) looked at the influence of trees in an urban plaza on perceive safety. It was reported that trees density and grass maintenance has strong effect on feeling secure. (Kuo et al., 1998)

2.4. *Physical disorder and its influence of citizens*

The presence of physical disorders example of vandalism litter or graffiti provide negative impact on people's perception of crime. Maintenance of houses and gardens can also influence crime and perception of safety. (Foster and Giles-Corti, 2008)

Graffiti, social disorganization, litter, lack of neighborhood cohesion also by the presence of undesirables, beggars, prostitutes, and drug addicts are fear generators (Nelson et al., 2001).

Sense of community is defined by (McMillan and Chavis, 1986) " a feeling that members have belonging and being important to each other, and a shared faith that members' needs will be met the commitment to be together".

Social ties, the perception of being supported and sense of community have impact on feeling of un-safety (Zani et al., 2001).

"Social safety can be defined as the feeling of being protected against danger sphere caused by human action in the public sphere" (Boomsma and Steg, 2013).

"Actual social safety reflects actual crime rates and may not always result in perceived social safety; this means that people may not feel although no real danger are present" (Boomsma and Steg, 2013).

Low perceived social safety influences behavior; women avoid certain places and situations that they perceive as unsafe resulting restriction of daily activities (Boomsma and Steg, 2013). Zani et al. (2001) found that "personal involvement in negative situations is a strong predictor of feeling of un-safety whereas sense of community plays a limited role in reducing it." (Zani et al., 2001) Although fear of the crime has an effect on a community's ability to develop social connections as people who are fearful might limit their social contact (Ross, 1993).

2.5. *Individual characteristic*

2.5.1. Fear of crime

Perception of safety can encompass judgment about crime (people's estimations of crime and likelihood that a criminal event will occur) or emotional reactions to crime (fears of crime) (Foster and Giles-Corti, 2008).

Ferraro (1995, p.8) defines fear of crime as “an emotional reaction of dread or anxiety to crime or symbols that a person associate with crime”. (Ferraro, 1995)

There are two kinds of people's responds to relieve their fear

- 1- Constrained behavior which might be to avoid certain places and changing behavior.
- 2- Protective behavior which might increase security precautions (Skogan and Maxfield, 1981).

Hale (1996) demonstrates that socio-demographic groups tend to show greater fear for crime. “Women and elderly people tend to feel more physical vulnerable.(Hale, 1996)

Ethnic minorities and lower socio-economic groups are said to be ecologically vulnerable because they have fewer financial recourses to protect themselves or their homes against crime, and often live in neighborhood with concentrated deprivation” (Foster and Giles-Corti, 2008).

Fearo and Randy L. Grange (1987) discuss the fears of crime that reflect a general cognitive perception of safety in one's neighborhood as “being an effective personal emotional reaction to the possibility of being victim of a specific type of crime”. (Ferraro and Grange, 1987)

These feeling demonstrated to be the highest among women and elderly. “High levels of fear are displayed among gender, age and ethnic identity in relation to perception of threat. They seem to be more vulnerable” (Nelson et al., 2001).

2.5.2. Experience of crime

Fear of crime is also reflecting individual's experiences. Individuals who have been victimized are likely to have a high awareness of threat and fear, while the victimization experiences of friends and relatives is likely to have similar effect (Nelson et al., 2001). The influence of moral panic, the report of crime on media can also generate fear among individuals (Nelson et al., 2001). Those with greater fear like women and elderly have the lowest risks of victimization (Miethe, 1995). Women and residential dwellers have perceived higher risk of being victimized by crime (Miethe, 1995). Race, age and income make difference in fear of crime.(Miethe, 1995).

As Day (1999, 325) concludes, “Fear in public space is shaped by one's identity—including race, class, and gender. It is misleading to speak of women's fear as it were uniform, though race, class, and gender are not always equally salient in the experience.” (Day, 1999)

3. Methodology:

Present study is an analytical observational study which has been conducted to compare the safety and fear feeling in two cities of Tehran (the capital city of Iran) and Stockholm (the capital city of Sweden).

I selected quantitative research method with use of questionnaire, which is effective in answering the research questions, gathering the data from the field using and finally analyzed the data.

This study was a cross-cultural comparison between individuals from these two very different countries. I started the research process by identifying the research problem, setting out the objectives of the study, developing research questions, reviewing the related literature and previous studies.

It is important to categorize the research approach in terms of whether it is inductive or deductive. The main difference between these two approaches is that a deductive approach is aimed and concerned with testing theory while the inductive approach starts with collecting data to generate a new theory.

The current study is conducted by using deductive approach in which I wanted to test different theories and hypotheses about feeling of fear and safety context. I have started the research process by exploring and collecting the data from different resources (factual reference sources, in print and online and the virtual libraries) and by using multiple sources of evidence; direct observation and questionnaire.

3.1. *Direct observation*

In order to understand the behavior of people in the research location, observation is a very useful method of data collection. In my study as it provided direct access to the social phenomena under consideration, it helped me ask people what they would do in certain situation. This method made me to understand and capture their behavior instead of lying on previous studies which had done already. Furthermore it was a good way to show me what can be missed in interview with people. An issue I faced in this way was “observer effect”. As the presence of an observer in some way influences the behaviors of those being observed, it can change the results and distort the data which undermine the value of observation as a method of data gathering. Furthermore in this method the observer just can focus on external behavior and miss people’s feeling (Patton, 2002) and I was not an exception.

3.2. Questionnaire

The questionnaire was another research instrument for data gathering in this research. Since each person (respondent) was asked to respond to the same set of questions, it offered an appropriate way of collecting responses from a large sample prior to quantitative analysis. I used Self-administered questionnaires which were completed by the respondents.

As I wished to collect some exploratory information (i.e. qualitative information for the purposes of better understanding of my hypotheses) and quantitative information (to test the hypotheses and statistical analysis of data that have previously been generated), a formal standardized questionnaire was designed in two languages of Farsi and English.

After articulation the questions that present research is intended to address, I determined the hypotheses around which my questionnaire was to be designed. To get the answer to my objectives I needed to go through literature to understand how previous studies have found different factors which influence the feeling of fear and safety in city. I searched for literature related to the subject in different ways. Internet and search engines with key words such as fear and safety, crime in city and etc. were used to achieve these aims. Finally, in this questionnaire some factors which are expected affecting the safety and fear feeling listed, especially concerning the physical environments, rate of crime and experiencing crime.

To ensure that each respondent receives the same stimuli, I tried to use simple words and prescribed wording and order of questions. As my research was a study on attitude and behavior of a group of people, for some questions I tried to use answer choices that range from one extreme to another extreme (for example strongly agree to strongly disagree). In this way Likert scale was used for rating the questionnaire responses, because it allows the researcher to uncover degree of opinion on a symmetric agree-disagree scale for a series of statements. (Burns and Bush, 2006)

As Likert scaling assumes that distances on each item are equal (Alphen et al, 1994), scales kept with an odd number of values (1-5) with a midpoint.

Having a range of responses enabled respondent rapid completion of the questionnaire during the interviewing process and facilitated data analysis. Some questions had simple "yes/no" answers.

To make sure interviewers handle questions consistently and to determine whether the questions as they were worded would achieve the desired results, whether the questions have been placed in the best order and were understood by all classes of respondent at first I did a pilot study in both cities of Tehran and Stockholm through the Internet by mailed questionnaire.

After some changes in questionnaire and making some necessary adjustment, the study started. I tried my best to organize a questionnaire which encourages participants to provide accurate, unbiased and complete information. The respondents which participated in this analytical study were composed of the normal population from two approximately similar districts in Tehran and Stockholm representing the normal populations.

The study in Sweden has been done during February 2014. The Swedish sample selection was based on interview with passerby was staying in Sundbyberg region which randomly asked for filling up the questionnaire form. It consisted of native participants including 57 females and 43 males aged 20 to 66.

In Iran investigation has been done during January 2014 in individual interview in Janatabad district in Tehran. The participants were 123 women and 77 men, age from 22 to 60.

A copy of the questionnaire was given to everybody in the selected group after he/she agreed to participant in the study. It takes about 20 to 30 minutes to fill up the form. After completion, the questionnaires were collected and the data were extracted and summarized in extraction tables. There were no questionnaire were excluded from analysis. The final analysis was done on 300 subjects.

3.3. Sequence for developing the questionnaire

Generally a good questionnaire should obtain relevant information to the objectives of the research and this information should have maximal reliability and validity.

Reliability is the degree to which a questionnaire collects and produces stable and consistent results and validity refers to how well a questionnaire obtains what is purported to obtain as objectives of the research. In the present study to develop a valid and reliable questionnaire I followed several steps took considerable time.

In this part I try to describe the sequential steps involved in the development and testing of my questionnaire which I used for data collection. Some parts may overlap with previous explanation about questionnaire preparation but, they are needed for better understanding of reliability and validity of present study. Figure 18 illustrates five sequential steps. Before going to the next step, each step completed after fine tuning and testing. Good preparation and understanding of previous step provided the foundation for initiating the next step.

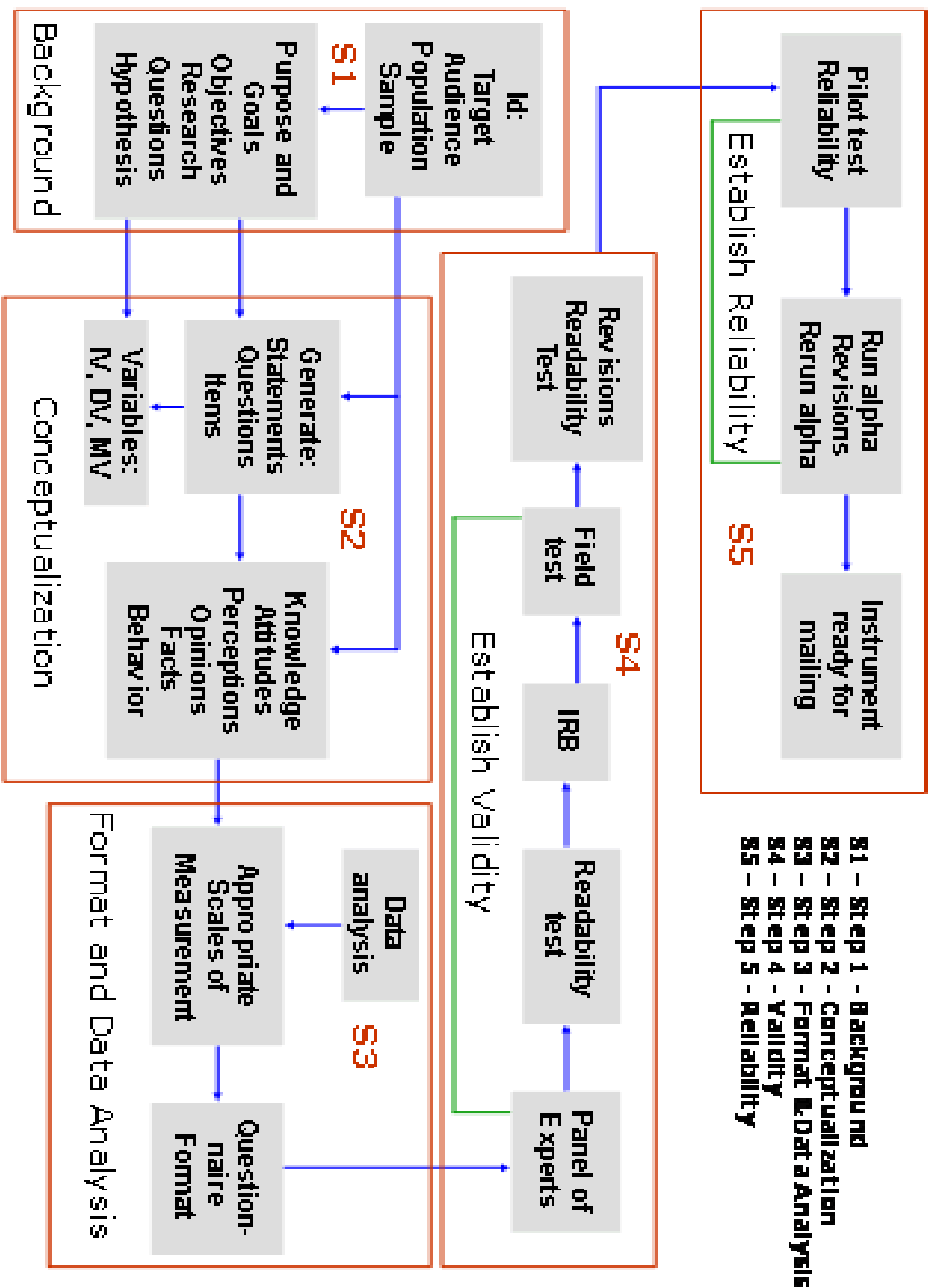


Figure 18 : Sequence for developing the present questionnaire (Radhakrishna, 2007)

3.3.1. Step 1: Background

In the initial step, I tried to examine the purpose, objectives, research questions, and hypothesis of my research. In this part I determined the participants of this study, their background, especially their educational/readability levels, access, and decided about the process to select the respondents. To better understanding of the problem, I gathered some information through literature search and readings different articles.

3.3.2. Step 2: Questionnaire Conceptualization

The second step was to generate statements/questions for the questionnaire. In this step, content (from literature/theoretical framework) was transformed into statements/questions. Furthermore, I tried to establish a link between the objectives of my study and their translation into content. In this part I indicated what the questionnaire should determine. Major variables (independent, dependent) were identified and defined in this step.

3.3.3. Step 3: Format and Data Analysis

In this step, I tried to focus on writing statements/questions, questionnaire layout, format, question ordering, font size, and proposed data analysis. In addition in this part I selected appropriate scales for the answering which quantified the subject's response on a particular variable. In this way determining the relationship between the level of measurement and the appropriateness of data analysis was important for me. For example, if in a part of questionnaire ANOVA (analysis of variance) was the mode of data analysis, the independent variable were measured on a nominal scale with two or more levels (yes, no, not sure), and the dependent variable were measured on an interval/ratio scale (strongly agree to strongly disagree).

3.3.4. Step 4: Establishing Validity

After I prepared a draft questionnaire, establishing validity was the next step. Validity refers to whether the questionnaire accurately measures what was intended. In other words I tried to establish whether the questionnaire's findings can "really" provide what I wanted to measure? Whether my questionnaire items ruling out other possible explanations for the results?

Depends on the objectives of the study, there are different types of validity (content, construct, criterion, and face). In this part I tried to address the following questions:

Is the questionnaire valid? In other words, can the findings of my questionnaire determine what I want?

Does it represent the content?

Is it appropriate for the respondents which I selected?

Is it complete enough to gather all the information needed to address the aims of my study?

Does it look like a real questionnaire?

Addressing these questions by using a panel of experts and field tests helped me to enhance my questionnaire validity.

To test if my questionnaire could answer these basic questions and to show appropriateness, meaningfulness, and usefulness of the specific interferences from the test scores I tested the validity of my questionnaire. Indeed the validation was the process of accumulating evidence to support such interferences.

There are three types of validity:

a) Content Validity

It extent to which the measure reflects a specific domain of content, When a test has content validity, the items on the test represent the entire range of possible items the test should cover. In this study to establish content validity I did a pilot study which will be explained more in part of testing the reliability.

b) Face validity

In this type of validity it is determined if the test seems to measure what is intended to measure. "Common sense" seems to be the test for this type of validity. In other words It is established by looking at whether a test appears to measure the target variable. In this study I established the face validity by consultation with supervisor of this research and other questionnaire design experts.

c) Construct Validity

A test has construct validity if it demonstrates an association between the test scores and the prediction of a theoretical trait. In other words it extends to which a measure relates to other measures in ways which are consistent with theoretically derived hypotheses. This may be tested via appropriate vicariate or multivariate statistics. To establish the construct validity in this study confirmatory factor analysis has been done.

3.3.5. Confirmatory Factor Analysis

After the questionnaire design, I faced a problem. Some unobserved (latent) variables (factors) were assumed to exert causal influences on observed variables. My questionnaire might have over 100 questions testing different concepts. More variables require a larger sample size, which was difficult to find in my research. Then I tried to boil each of these questions down to its corresponding state standard. To reduction of the overall number of variables used to explain outcomes, I used confirmatory factor analysis.

Factor analysis is a set of statistical methods examine the patterns of correlations between observed variables. In other words it used to measure the influence of unmeasured factors on observed variables in the theorized way. If a set of variables are highly correlated, they are likely influenced by the same factor. If variables are not highly correlated they are probably influenced by different factors. Confirmatory Factor Analysis (CFA) is a specific type of factor analysis that tests the hypothesis that a certain set of variables is influenced by specific factors. It can also be useful because allowed me to reduce the number of questions in my questionnaire without losing information.

CFA requires special purpose software packages such as Mplus, LISREL, etc. In present research Lisrel was used.

In SFA a large class of various tests exists for assessing how well the model matches the observed data. χ^2 is a classic goodness-of-fit measure to determine overall model fit. A small χ^2 and failure to reject the null hypothesis is a sign of a good model fit. Another test is the chi-square test which indicates the amount of difference between expected and observed covariance matrices. A chi-square value close to zero indicates little difference between the expected and observed covariance matrices.

Another commonly reported statistic is the Root Mean Square Error of Approximation (RMSEA). It avoids issues of sample size by analyzing the discrepancy between the hypothesized model, with optimally chosen parameter estimates, and the population covariance matrix.

Comparative fit index (CFI) is another measure of fit between the hypothesized model and the observed covariance matrix. The CFI range is between 0 and 1, with a cutoff value of 0.9 generally indicating acceptable model fit.

This study has only focused on presenting the recommended ranges for each index and excluded the complete definition of them. AGFI, RMR, SRMR, NFI, and NNFI are the other indices which are used in Confirmatory Factor Analysis (They all are showed in Figure 19)

Fit Index	Acceptable Threshold Levels	Description
<i>Absolute Fit Indices</i> Chi-Square χ^2	Low χ^2 relative to degrees of freedom with an insignificant p value ($p > 0.05$)	
Relative χ^2 (χ^2/df)	2:1 (Tabachnik and Fidell, 2007) 3:1 (Kline, 2005)	Adjusts for sample size.
Root Mean Square Error of Approximation (RMSEA)	Values less than 0.07 (Steiger, 2007)	Has a known distribution. Favours parsimony. Values less than 0.03 represent excellent fit.
GFI	Values greater than 0.95	Scaled between 0 and 1, with higher values indicating better model fit. This statistic should be used with caution.
AGFI	Values greater than 0.95	Adjusts the GFI based on the number of parameters in the model. Values can fall outside the 0-1.0 range.
RMR	Good models have small RMR (Tabachnik and Fidell, 2007)	Residual based. The average squared differences between the residuals of the sample covariances and the residuals of the estimated covariances. Unstandardised.
SRMR	SRMR less than 0.08 (Hu and Bentler, 1999)	Standardised version of the RMR. Easier to interpret due to its standardised nature.
<i>Incremental Fit Indices</i> NFI	Values greater than 0.95	Assesses fit relative to a baseline model which assumes no covariances between the observed variables. Has a tendency to overestimate fit in small samples.
NNFI (TLI)	Values greater than 0.95	Non-normed, values can fall outside the 0-1 range. Favours parsimony. Performs well in simulation studies (Sharma et al, 2005; McDonald and Marsh, 1990)
CFI	Values greater than 0.95	Normed, 0-1 range.

Figure 19: Fit indices and their acceptable thresholds (Hooper et al., 2008)

In this step of my research, according to all were explained above, I tried to verify the validity indicators of a Physical environment safety, Fear of crime, experience of crime and Rate of crime by LISREL software. The details of verifying the validity of these variables are explained in Appendix 1, Appendix 2,

Appendix 3, Appendix 4 and Appendix 5. (Page135-140)

Verification of the validity indicators of a physical environment safety:

Initially we investigate indicators of physical safety to find whether this item represents a valid measure of physical safety, or not? In other words, you can thoroughly examine the physical safety or not?

Table 3: Validity test in the case of Physical environment safety indicators

Indicator	Value	
Chi-Square	176.96	<i>According to LISREL output in Table 3 shows χ^2/df was 1.31 and this value is less than 2.0, so it is fit and acceptable. Also root mean square error approximation (RMSEA) it should be < 0.08 that in this model is 0.055. The tests of goodness of fit are encouraging; validation indexes are well into the threshold required for a good fit. In particular GFI, AGFI, CFI and NFI are should be more than 0.90 and in this model all these values are more than 0.90. Also RMR should be less than 0.05 and in this model is 0.039. So our model is correct.</i>
df	135	
Chi-Square/ df	1.31	
RMSEA	0.055	
GFI	0.98	
AGFI	0.94	
CFI	0.96	
NFI	0.98	
RMR	0.039	

The models analyses (path diagram) represent the results of assess on physical environment safety indicators.
Appendix 1

Verification of the validity indicators of Fear of crime:

Firstly we investigate indicators of fear of crime to find whether this item represents a valid measure of that, or not? In other words, you can thoroughly examine the fear of crime or not?

Table 4: Validity test in the case of Fear of crime indicators

Indicator	Value	
Chi-Square	7.94	<i>According to LISREL output in Table 4 shows χ^2/df was 1.58 and this value is less than 2.0, so it is fit and acceptable. Also root mean square error approximation (RMSEA) it should be < 0.08 that in this model is 0.034. The tests of goodness of fit are encouraging; validation indexes are well into the threshold required for a good fit. In particular GFI, AGFI, CFI and NFI are should be more than 0.90 and in this model all these values are more than 0.90. Also RMR should be less than 0.05 and in this model is 0.025. So our model is correct.</i>
df	5	
Chi-Square/ df	1.58	
RMSEA	0.034	
GFI	0.95	
AGFI	0.92	
CFI	0.93	
NFI	0.92	
RMR	0.025	

The model analyses (path diagram) represents the results of assess on fear of crime indicators. Appendix 2

Verification of the validity indicators of crime experience:

Firstly we investigate indicators of crime experience to find whether this item represents a valid measure of that, or not? In other words, you can thoroughly examine the experience of crime or not?

Table 5: Validity test in the case of crime experience indicators

Indicator	Value	
Chi-Square	3.39	<i>According to LISREL output in Table 5 shows χ^2/df was 1.69 and this value is less than 2.0, so it is fit and acceptable. Also root mean square error approximation (RMSEA) it should be < 0.08 that in this model is 0.045. The tests of goodness of fit are encouraging; validation indexes are well into the threshold required for a good fit. In particular GFI, AGFI, CFI and NFI are should be more than 0.90 and in this model all these values are more than 0.90. Also RMR should be less than 0.05 and in this model is 0.027. So our model is correct.</i>
Df	2	
Chi-Square/ df	1.69	
RMSEA	0.045	
GFI	0.95	
AGFI	0.92	
CFI	0.94	
NFI	0.95	
RMR	0.027	

The models analyses (path diagram) represent the results of assess on experience of crime indicators. Appendix 3

Verification of the validity indicators of rate of crime:

Firstly we investigate indicators of rate of crime to find whether this item represents a valid measure of that, or not? In other words, you can thoroughly examine the rate of crime or not?

Table 6: Validity test in the case of Rate of crime indicators

Indicator	Value	
Chi-Square	1.95	<i>According to LISREL output in Table 6 shows χ^2/df was 0.97 and this value is less than 2.0, so it is fit and acceptable. Also root mean square error approximation (RMSEA) it should be < 0.08 that in this model is 0.021. The tests of goodness of fit are encouraging; validation indexes are well into the threshold required for a good fit. In particular GFI, AGFI, CFI and NFI are should be more than 0.90 and in this model all these values are more than 0.90. Also RMR should be less than 0.05 and in this model is 0.023. So our model is correct.</i>
df	2	
Chi-Square/ df	0.97	
RMSEA	0.021	
GFI	0.96	
AGFI	0.95	
CFI	0.97	
NFI	0.93	
RMR	0.023	

The model analyses (path diagram) represents the results of assess on rate of crime indicators. Appendix 4

3.3.6. Step 5: Establishing Reliability

In this final step, to establish the reliability of the questionnaire a pilot test was carried out. Reliability refers to random error in measurement. Reliability indicates the accuracy or precision of the measuring instrument (Norland, 1990) (Radhakrishna, 2007). To answer the question “does the questionnaire consistently measure whatever it measures” I designed a pilot test.

Reliability was established using a pilot test by collecting data from 20 subjects not included in the sample, which I sent them a copy of my questionnaire. Data collected from pilot test is analyzed using SPSS²². SPSS provides two key pieces of information. These are "correlation matrix" and "view alpha if item deleted" column. In this step, the items/statements that had 0s, 1s, and negatives were eliminated. Cronbach's Alpha is a Tool for Assessing the Reliability of Scales in a questionnaire and it is one of the most widely-used measures of internal consistency. In this study to evaluate the reliability, Cronbach's alpha coefficient was used. For calculating Alpha coefficient scores first, variance must be calculated for each subset of questions sections. Therefore, the reliability coefficient (alpha) can range from Excellent ($\alpha \geq 0.9$) which representing total absence of error and Unacceptable ($\alpha < 0.5$) that representing a questionnaire is not OK and is with full of error. (Table 7)

In my pilot study, a reliability coefficient (alpha) was reported Table 7 which was considered acceptable reliability.

Table 7: Alpha level for each of the indicators in research

<i>Indicate</i>	Cronbach's alpha coefficient	<i>As indicated in the Table 7, all Alpha levels are more than 0.70 obtained. And this represents the inter-correlations between variables used to measure perceptions and thus can say that in our study has the reliability and validity.</i>
<i>physical environment</i>	0.844	
<i>Fear of crime</i>	0.701	
<i>Experience of crime</i>	0.713	
<i>Crime rate</i>	0.764	

Source: research findings

Cronbach's alpha coefficients diagram Appendix 5

Figure 96: Alpha level for each of the indicators in research

²² Statistical Package for Social Sciences

3.4. Statistical hypothesis testing

In this study I had two groups of variables: qualitative variables whose values varied by attributes of respondents such as gender and marital status and quantitative variables which are measured using a unit of measurement, have different values, and their values can be ranked from low to high.

After data collection from the questionnaires and data extraction, the next step was statistical hypothesis testing. In this way several tests were used in determining what outcomes of this study would lead to a rejection of the null hypotheses.

I calculated test statistics from the data which have been extracted already from the questionnaires.

There were different types of test statistics. The first issue in this step was to determine whether the variable is qualitative or quantitative.

There are some tests to compare the means of variables:

To compare the means of two groups t-tests are applicable. T-test is a statistical hypothesis test which can be used to determine if two sets of data are significantly different from each other. This test is mostly commonly applied when the test statistic would follow a normal distribution pattern.

There are two types of t-test, the paired t-test and the independent t-test

With paired (dependent) samples, it is possible to take each measurement in one sample and pair it sensibly with one measurement in the other sample. The paired t-test is used when we have a paired design. With independent samples, there is no sensible way to pair off the measurements. The independent t-test is used when we have an independent design. In this study, in order to compare two cities in rate of crime by marital status, independent t-test was used.

When we take samples from a population, sampling error may happen, in other words we expect each sample mean to differ simply because we are taking a sample rather than measuring the whole population. It is often referred to more informally as the effects of "chance". Thus, we always expect there to be some differences in means among different groups. In my study my question was that whether the difference among groups greater than that expected had caused by chance or not. To check if there was a true (real) difference in the population mean or not I used ANOVA test. In statistics, one-way analysis of variance (one-way ANOVA) is used to compare means of two or more samples (using the F distribution). This technique can be used only for numerical data. (Crawford et al., 2004)

Then in present research In order to compare means of two or more samples, One-way ANOVA test was used.

Mann–Whitney U test was another test which I used in data analysis. In statistics, the Mann–Whitney U test (also called the Mann–Whitney–Wilcoxon (MWW) is a non-parametric test of the null hypothesis that two populations are the same against an alternative hypothesis, especially which a particular population tends to have larger values than the other. In present study it was used to analyze rank-ordered data.

In this study in order to investigate about the relationship between two categorical variables chi-squared test or χ^2 test was used. The Chi-square value is a single number that adds up all the differences between our actual data and the data expected if there is no difference. If the actual data and expected data (if no difference) are identical, the Chi-square value is zero. A bigger difference will give a bigger Chi-square value.

In order to investigate the relationship between two indicators of research, Pearson product-moment correlation coefficient was used which helped to describe the type of relationship existing between two variables. In statistics, the Pearson product-moment correlation coefficient is a measure of the linear correlation (dependence) between two variables X and Y, giving a value between +1 and –1 inclusive, where 1 is total positive correlation, zero is no correlation, and –1 is total negative correlation. It shows the degree of linear dependence between two variables. (Lee Rodgers and Nicewander, 1988)

In this research in order to express the strength of the relationship between two quantitative variables (ratio or interval scale), Pearson’s correlation coefficient was used. In other words to assess the strength of relationship between pairs of variables correlation coefficient was used because it can quantify the strength of the linear relationship between two ranked or numerical variables.

4. Research findings & Data analysis:

This chapter describes the analysis of data followed by a discussion of the research findings. The findings relate to the research questions that guided the study. Data were analyzed to identify, describe and explore the relationship between feeling safety and fear of crime and comparison between them in two different environments.

Research findings are described and regulated in two sections illation and descriptive. In descriptive part, data summarized in the form of frequency distribution tables, charts and statistical indicators for both cities.

Demographic characteristics will come first and then the research findings with research indexes items, and in the analytical results with according to measurement of the variables, using statistical tests to assess the relationship between variables is discussed.

A total of 300 questionnaires were received, 200 from Tehran and also 100 from Stockholm,

4.1. *Descriptive findings*

Description of the results related to general characteristics of the respondents will be in appendix .

4.2. *Indices of research*

The topic of the Investigating the status of respondents in relation with each of the parameters (factors) have been issue to compute command, studied and constructively questioned. It is noteworthy that for each of the parameters of the study computes to combine all questions and answer in each part.

In continuation of research status respondents were separated in relation with each item that have been studied and each parameter of statistical indicators research in general and was separated for both towns as well.

In addition we will analyze responder's statues in each question and items.

In this section we study general measures of statistical indicators, as well as the both cities.

4.3. Index of physical safety

In this section we will reviews the statistical indicator that shows (Table 8) the level of physical environment safety in each city and between those.

Stockholm: According to Standard Division and the mean, the safety in this city is high but in **Tehran** is rather lower.

Table 8: Physical safety level statistical indicators

City	Mean (18-90)	Standard Division
Stockholm	67.3	7.58
Tehran	51.9	7.81

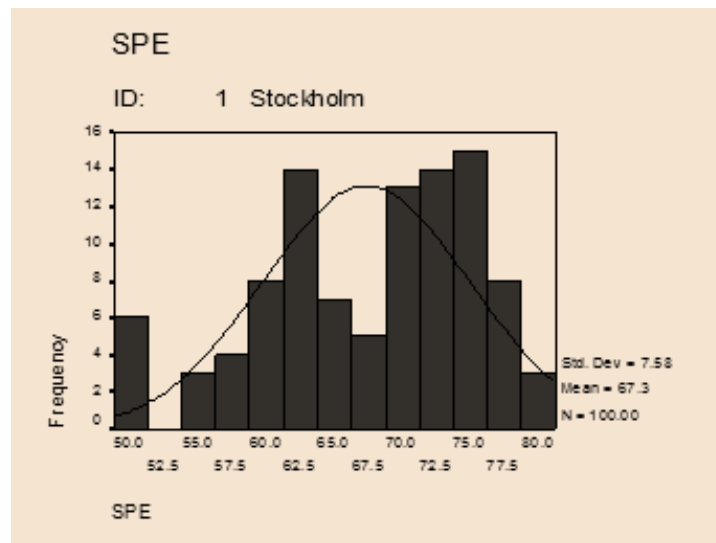


Figure 20: Physical safety level statistical in Stockholm

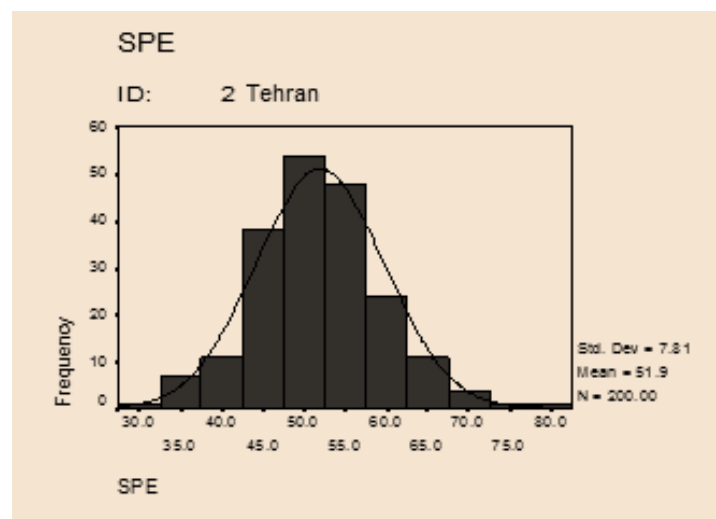


Figure 21: Physical safety level statistical in Tehran

4.4. Survey of constructive item for index of physical environment safety:

18 questions to measure these indicators have been adjusted based on Likert scale (Five-point item). Tables (Table 9 to Table 26) below show the frequency distribution for each question in both cities.

Table 9: Feeling secure in two sites (%)

I feel secure where I live	Always	Often	Sometimes	Rarely	Never
Stockholm	44	43	9	2	2
Tehran	4.5	13	41	23.5	18

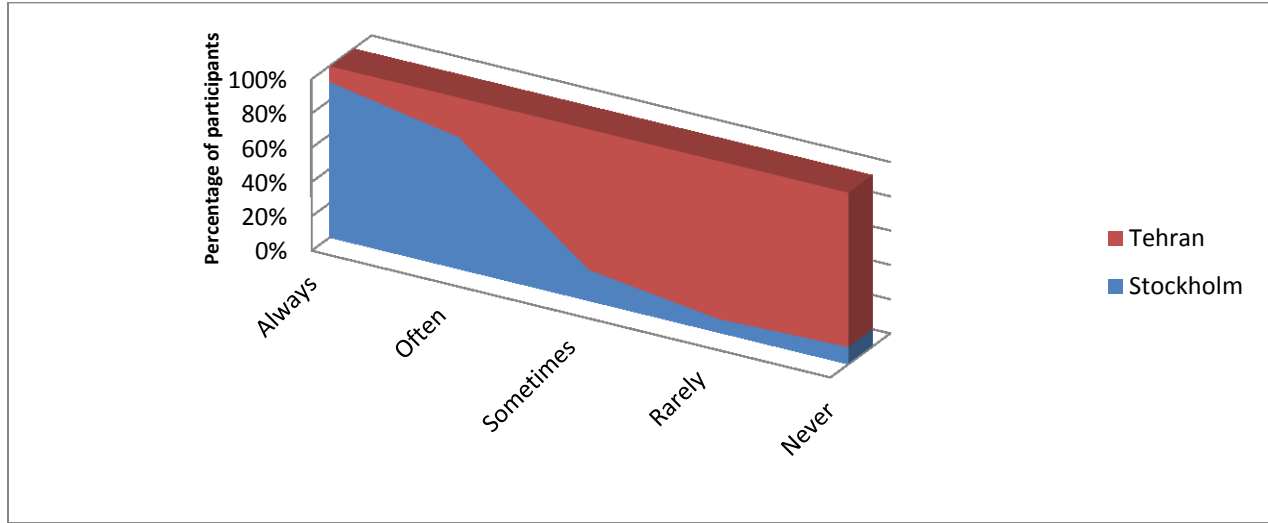


Figure 22: 3D chart of feeling secure distribution in two cities

Table 10: Feeing secure on the main street in two cities (%)

I feel secure on the main street.	Always	Often	Sometimes	Rarely	Never
Stockholm	49	41	6	2	2
Tehran	5.5	19	36	27.5	12

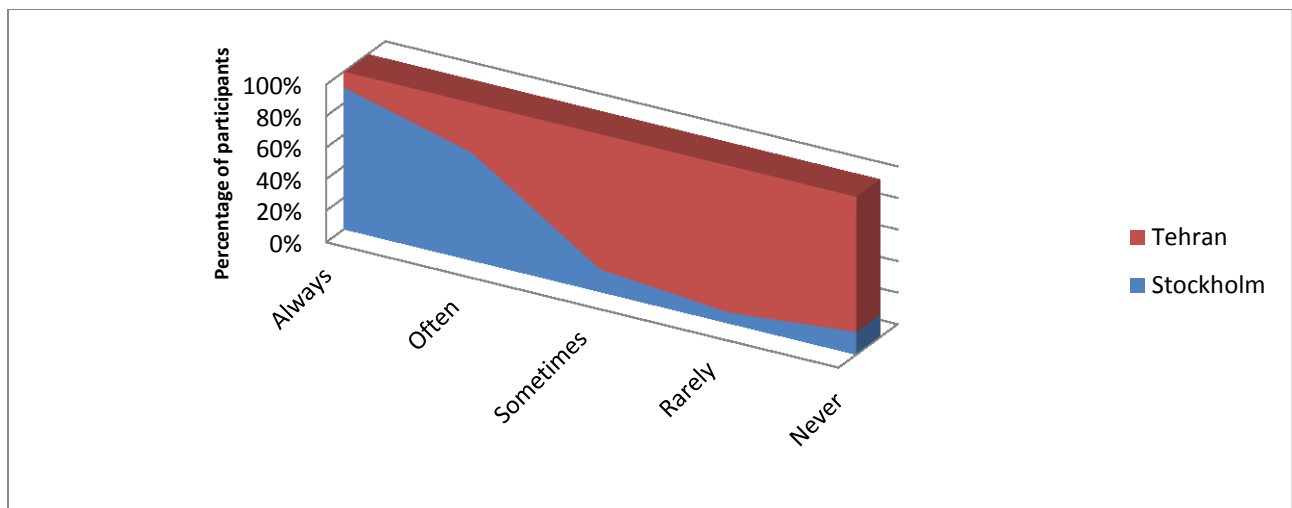


Figure 23: 3D chart of feeling secure on the main street distribution in two cities

Table 11: Feeling secure on local Parks (%)

I feel secure on local parks.	Always	Often	Sometimes	Rarely	Never
Stockholm	32	36	25	5	2
Tehran	3	18	35.5	26.5	17

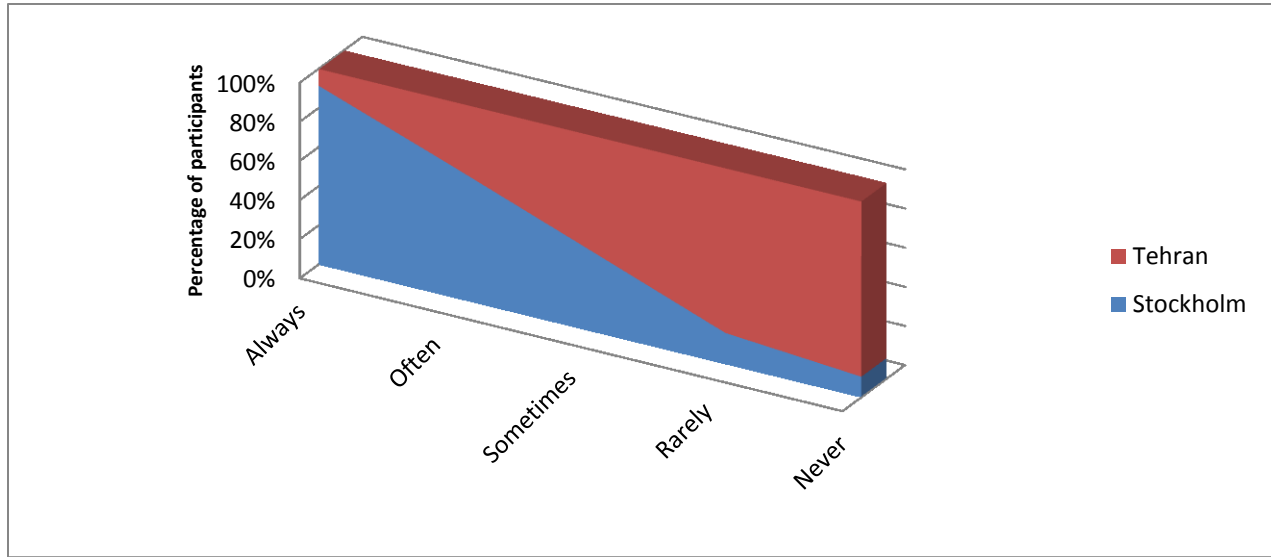


Figure 24: 3D chart of feeling secure on local parks distribution in two cities

Table 12: Feeling secure passing deserted area (%)

I feel secure passing deserted (Not crowded) places.	Always	Often	Sometimes	Rarely	Never
Stockholm	22	30	32	14	2
Tehran	1.5	7.5	36	33.5	21.5

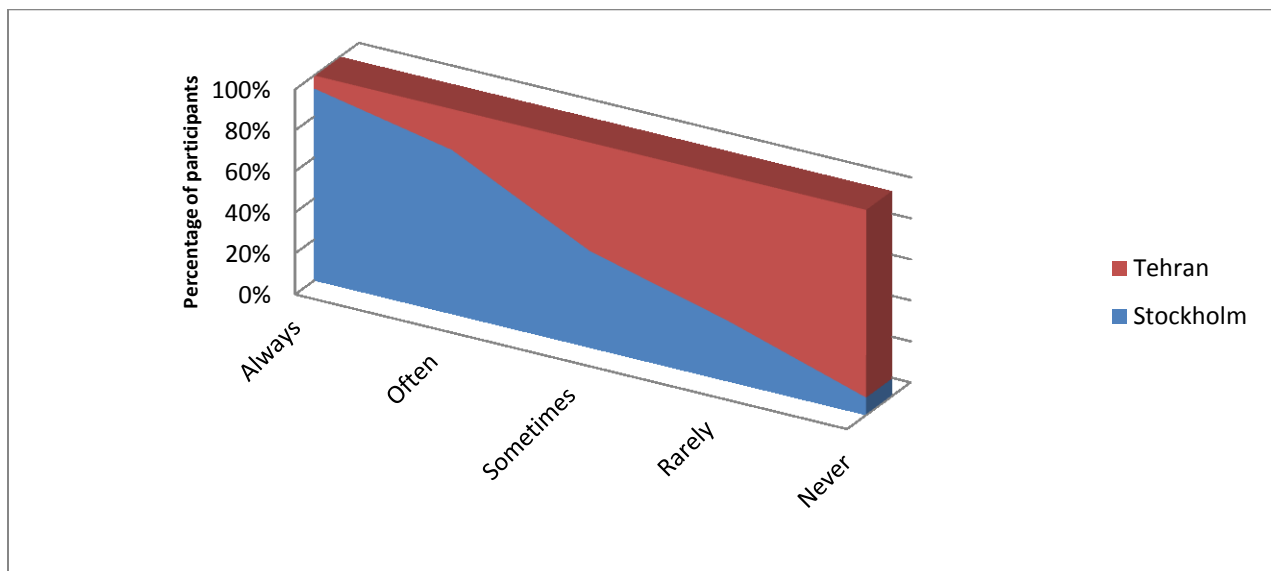


Figure 25: 3D chart of feeling secure passing deserted area distribution in two cities

Table 13: Feeling secure & construction sites (%)

I feel secure passing Construction sites.	Always	Often	Sometimes	Rarely	Never
Stockholm	19	41	34	6	0
Tehran	0.5	10	34.5	28	27

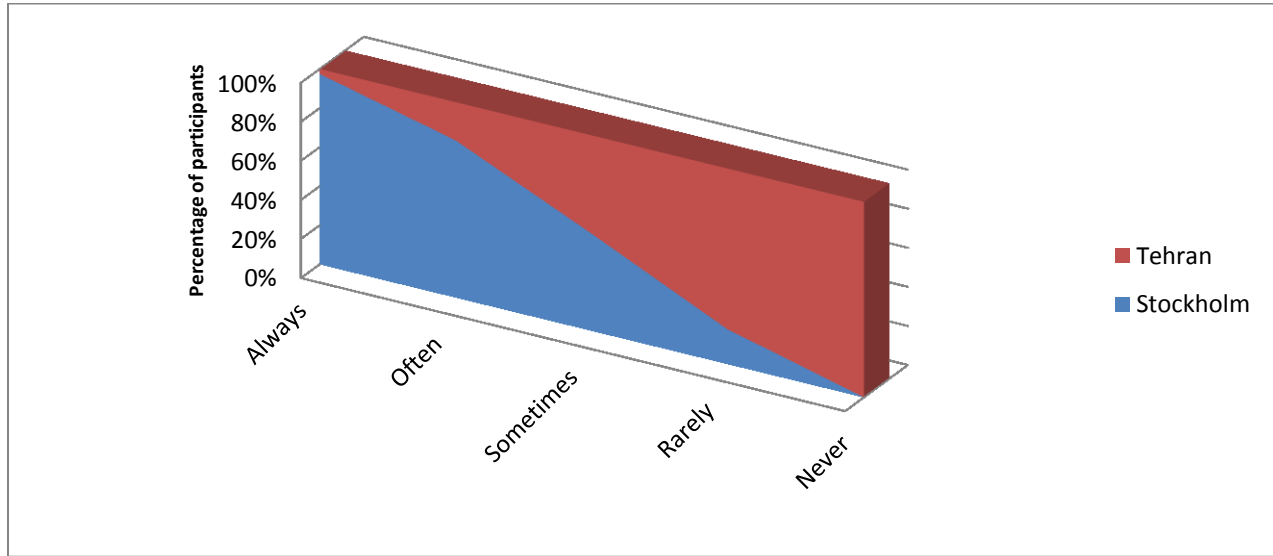


Figure 26: 3D chart of feeling secure passing construction sites distribution in two cities

Table 14: Feeling secure in residential areas without shops (%)

I feel secure in residential areas without shops.	Always	Often	Sometimes	Rarely	Never
Stockholm	26	49	23	0	2
Tehran	2.5	13	51.5	24.5	8.5

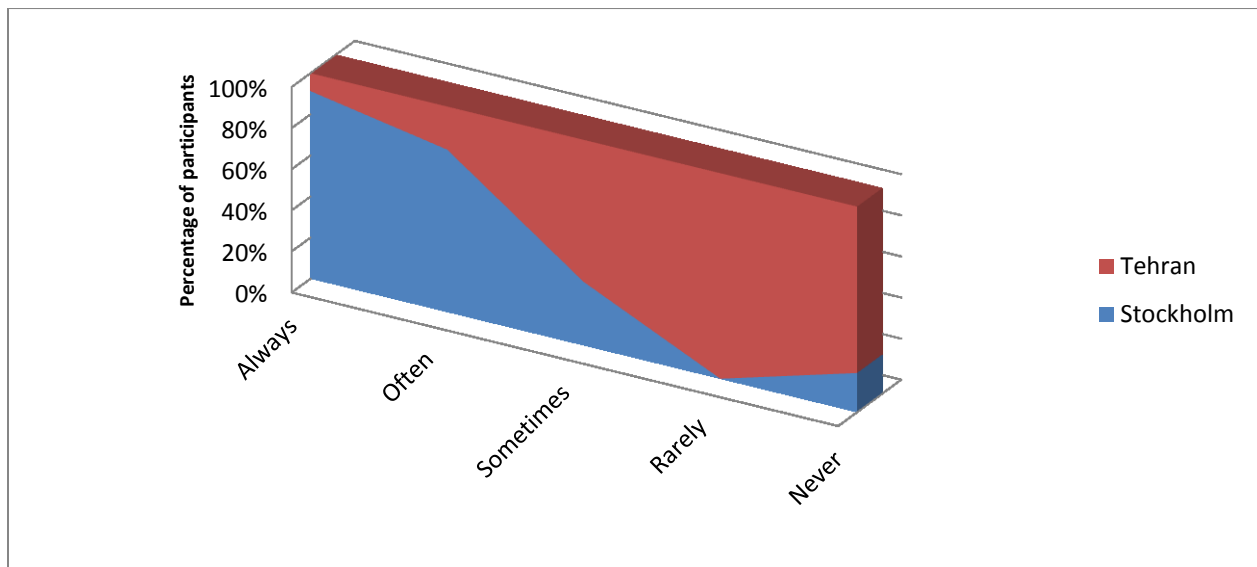


Figure 27: 3D chart of feeling secure in residential areas without shops distribution in two cities

Table 15: Feeling secure where windows are facing the walk side (%)

I feel secure where windows are facing the walk side.	Always	Often	Sometimes	Rarely	Never
Stockholm	41	43	16	0	0
Tehran	4.5	18	53	20.5	4

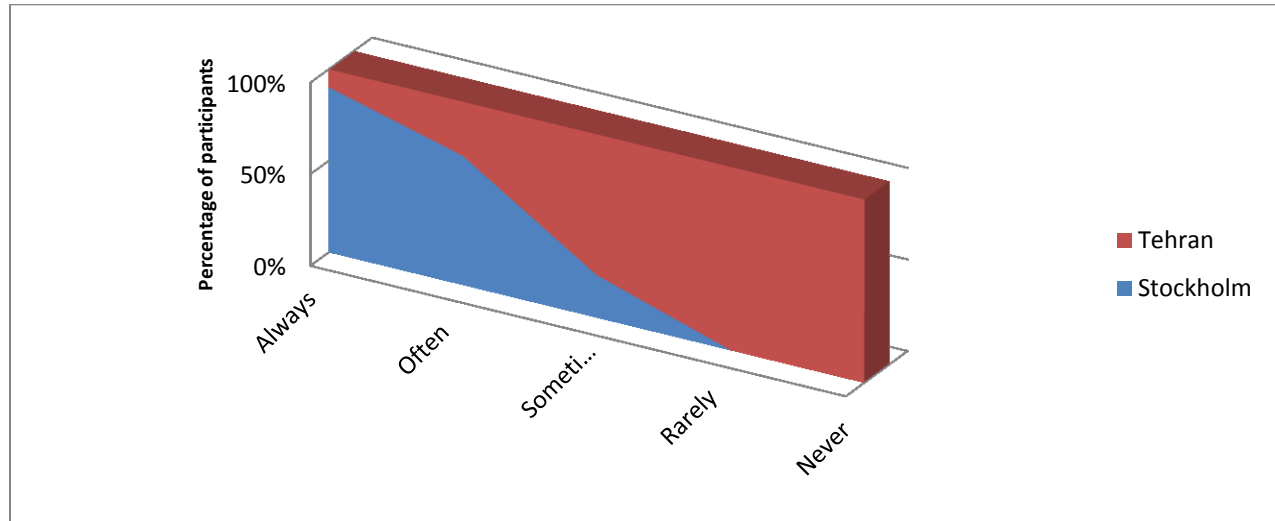


Figure 28: 3D chart of feeling secure in where windows are facing the walk side distribution in two cities

Table 16: Feeling secure in crowded and busy pedestrian walks with shops (%)

I feel secure in crowded and busy pedestrian walks with shops.	Always	Often	Sometimes	Rarely	Never
Stockholm	47	34	14	3	2
Tehran	5	20.5	43	24	7.5

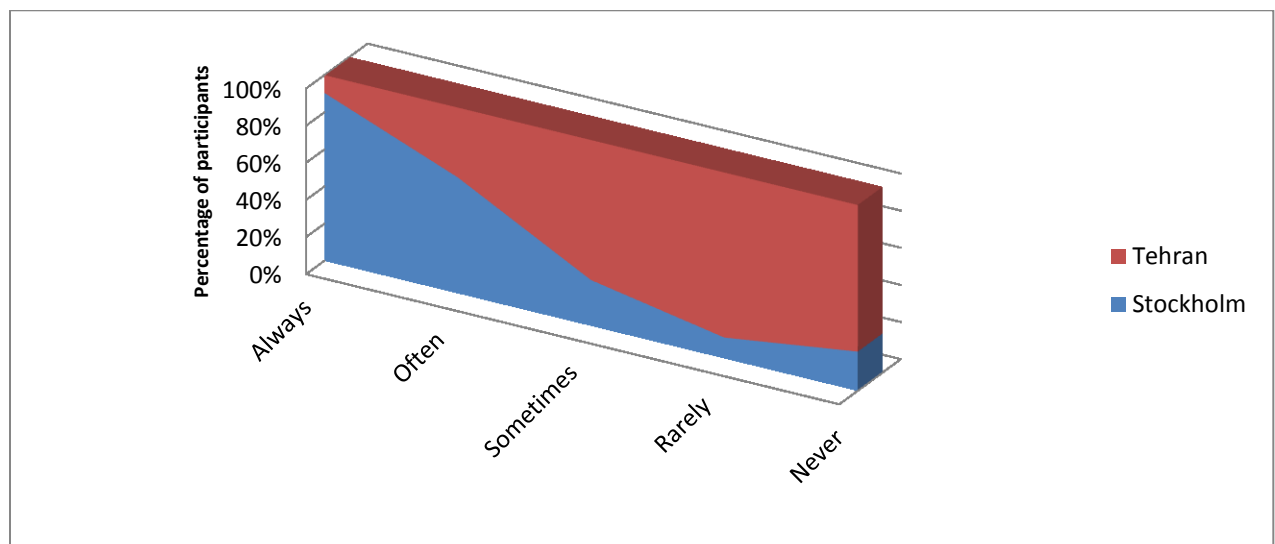


Figure 29: 3D chart of feeling secure in crowded pedestrian walks with shops distribution in two cities

Table 17: Feeling secure passing zebra crossing (%)

I feel secure passing zebra crossing.	Always	Often	Sometimes	Rarely	Never
Stockholm	50	36	10	4	0
Tehran	6.5	16.5	48.5	20.5	8

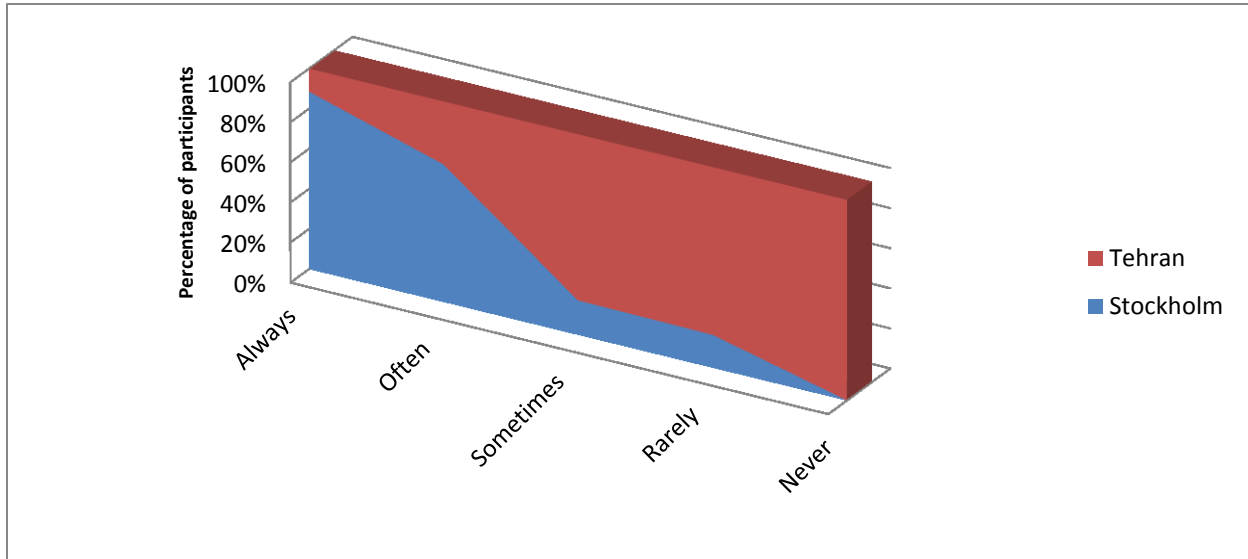


Figure 30: 3D chart of feeling secure passing zebra crossing distribution in two cities

Table 18: Feeling insecure passing streets with bushes and tall trees (%)

I feel insecure passing streets with bushes and tall trees.	Always	Often	Sometimes	Rarely	Never
Stockholm	14	21	27	19	19
Tehran	16.5	20	35.5	20.5	7.5

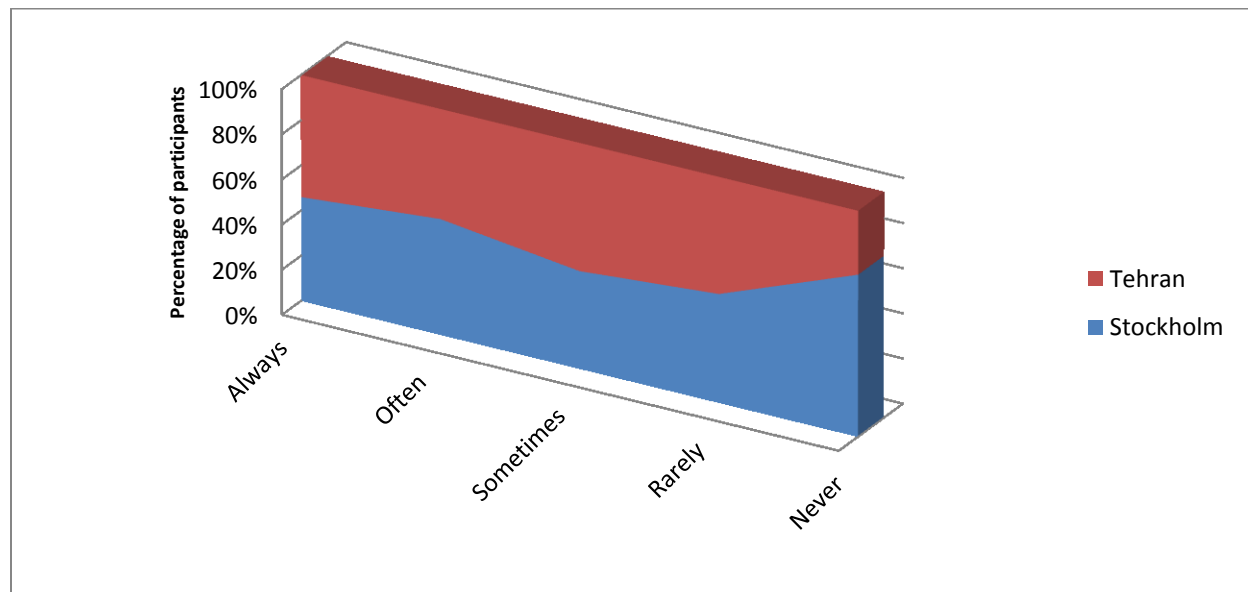


Figure 31: 3D chart of feeling insecure passing streets with bushes and tall trees distribution in two cities

Table 19: Lighting of the street where I live is good enough (%)

The light of the street where I live is good enough.	Always	Often	Sometimes	Rarely	Never
Stockholm	33	41	24	2	0
Tehran	7	14.5	47	20	11.5

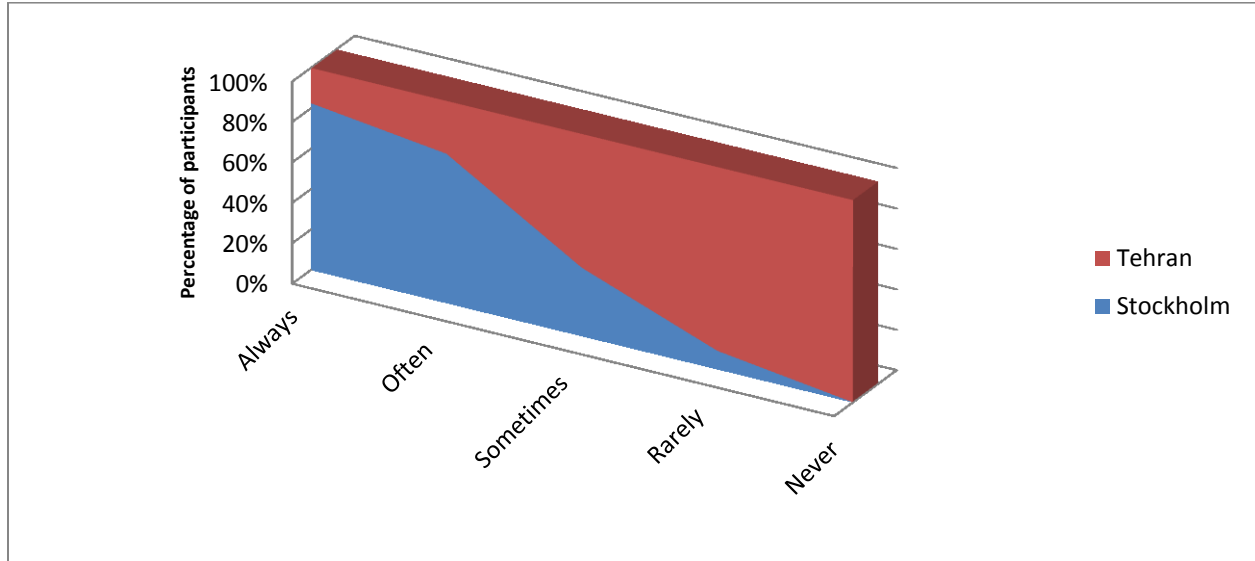


Figure 32: 3D chart of lighting of the street where I live is good enough distribution in two cities

Table 20: Feeling secure in darkness (%)

I feel secure in darkness.	Absolutely	Positive	Neutral	Negative	Not at all
Stockholm	13	35	33	15	4
Tehran	5	12.5	46	24.5	12

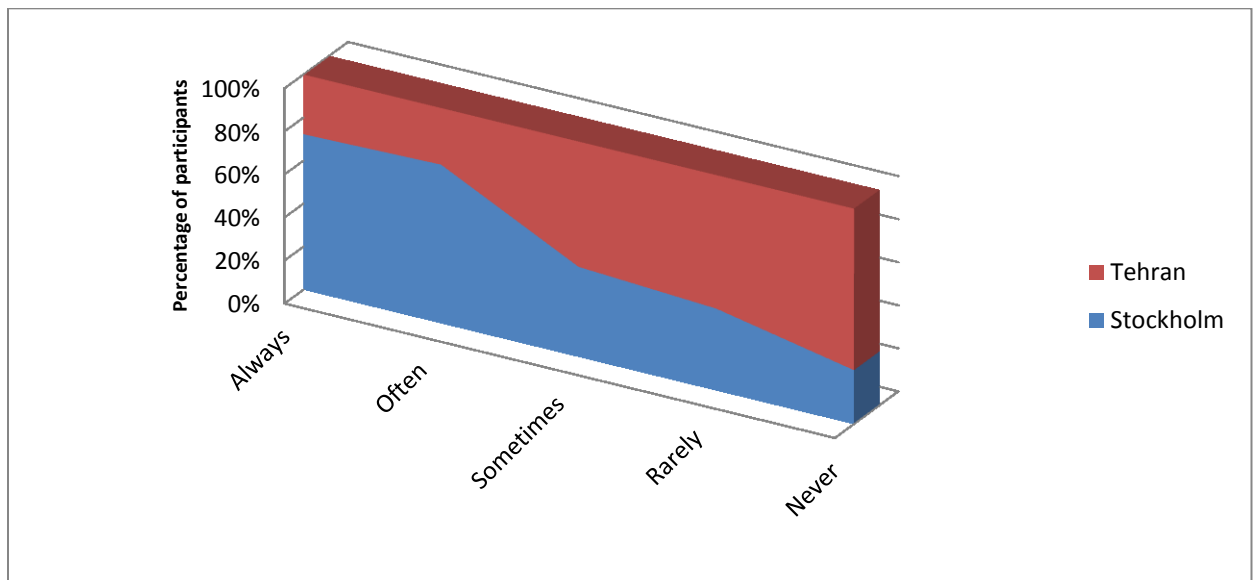


Figure 33: 3D chart of Feeling secure in darkness distribution in two cities

Table 21: Feeling secure on days rather than nights (%)

I feel rather secure on days than nights.	Always	Often	Sometimes	Rarely	Never
Stockholm	38	31	19	8	4
Tehran	15.5	28.5	35.5	16	4.5

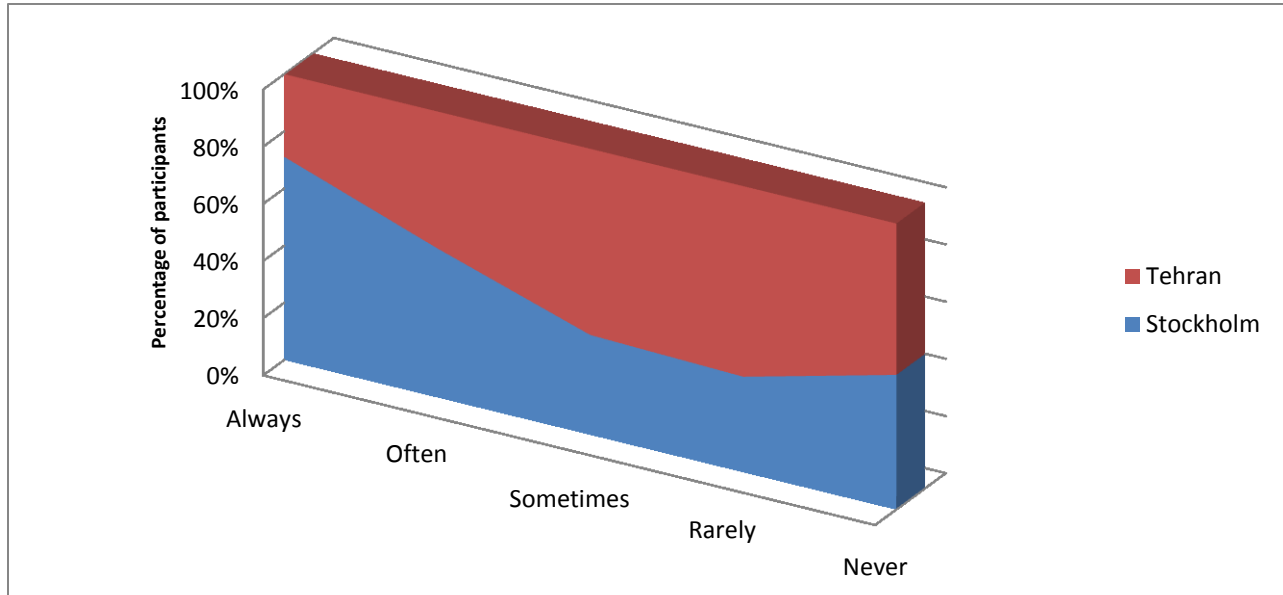


Figure 34: 3D chart of feeling secure on days rather than nights distribution in two cities

Table 22: Feeling insecure in dead-end allies (%)

I feel insecure in dead-end allies.	Always	Often	Sometimes	Rarely	Never
Stockholm	13	33	31	13	10
Tehran	6.5	26	50.5	11.5	5.5

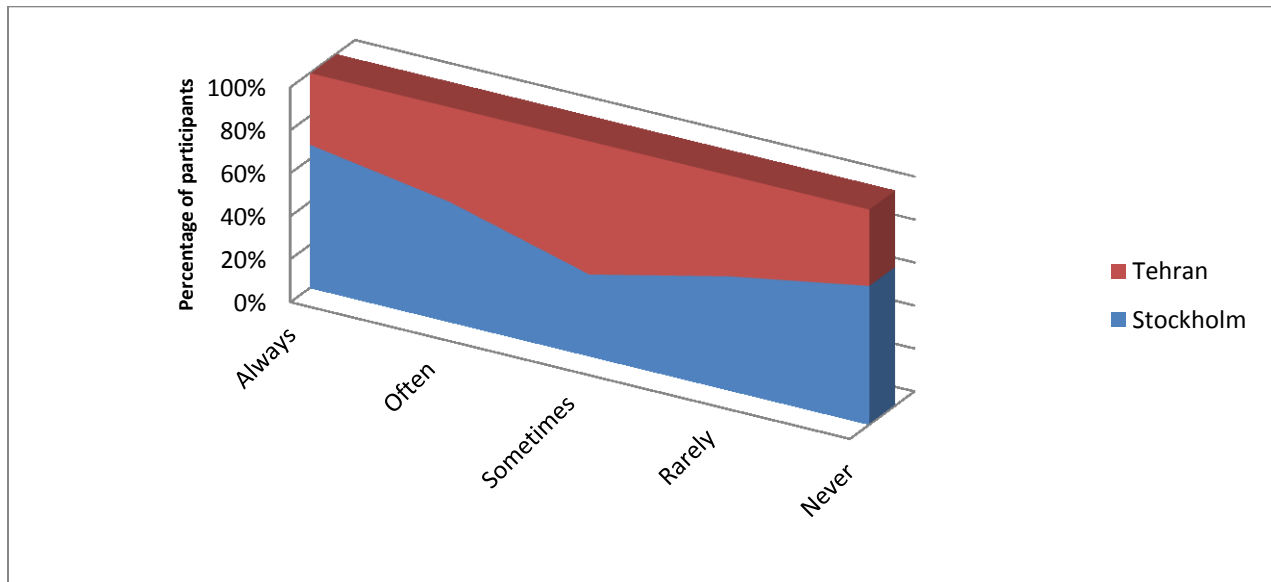


Figure 35: 3D chart of feeling insecure in dead-end allies' distribution in two cities

Table 23: Feeling secure waiting for bus or a friend (%)

I feel secure waiting for bus or a friend.	Always	Often	Sometimes	Rarely	Never
Stockholm	45	45	6	0	4
Tehran	3	24	46.5	17.5	9

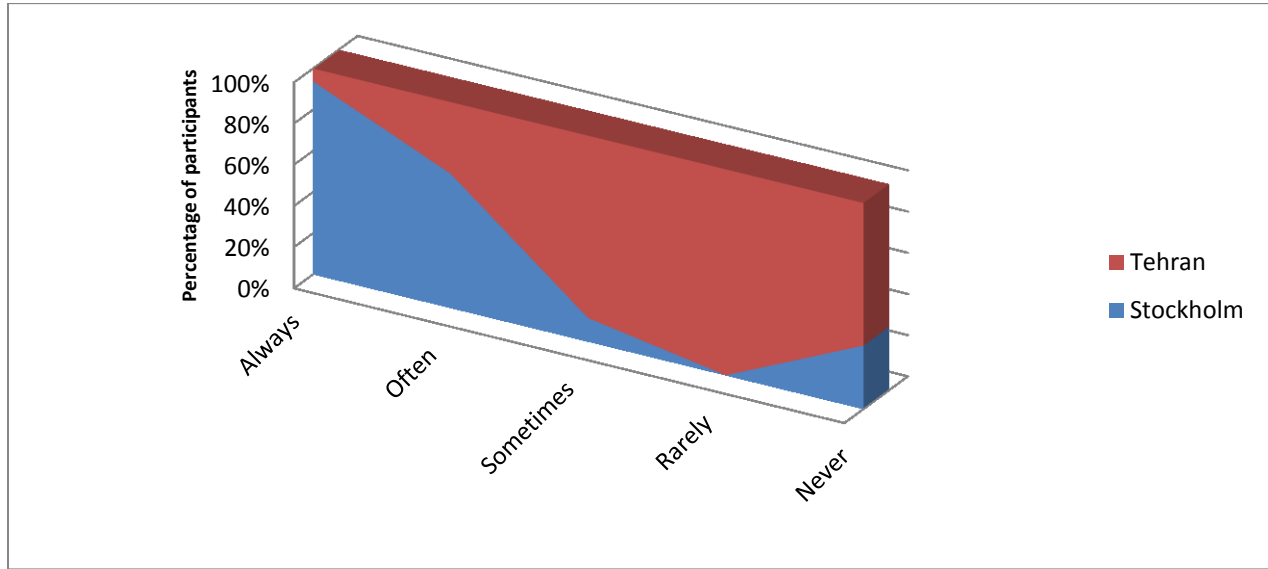


Figure 36: 3D chart of feeling secure waiting for bus or a friend distribution in two cities

Table 24: Knowing neighborhood (%)

I know my neighborhood.	Always	Often	Sometimes	Rarely	Never
Stockholm	41	26	31	2	0
Tehran	13	20	49.5	12.5	5

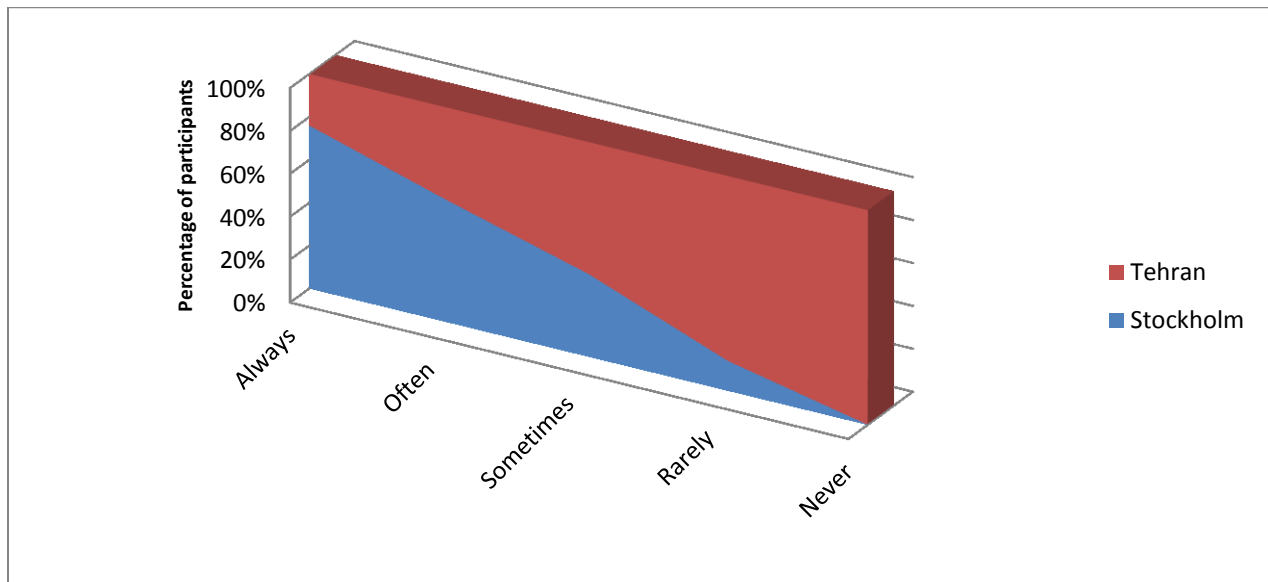


Figure 37: 3D chart of knowing neighborhood distribution in two cities

Table 25: Knowing neighbors (%)

I know my neighbors.	Always	Often	Sometimes	Rarely	Never
Stockholm	4	13	35	31	17
Tehran	7.5	23.5	39	21	9

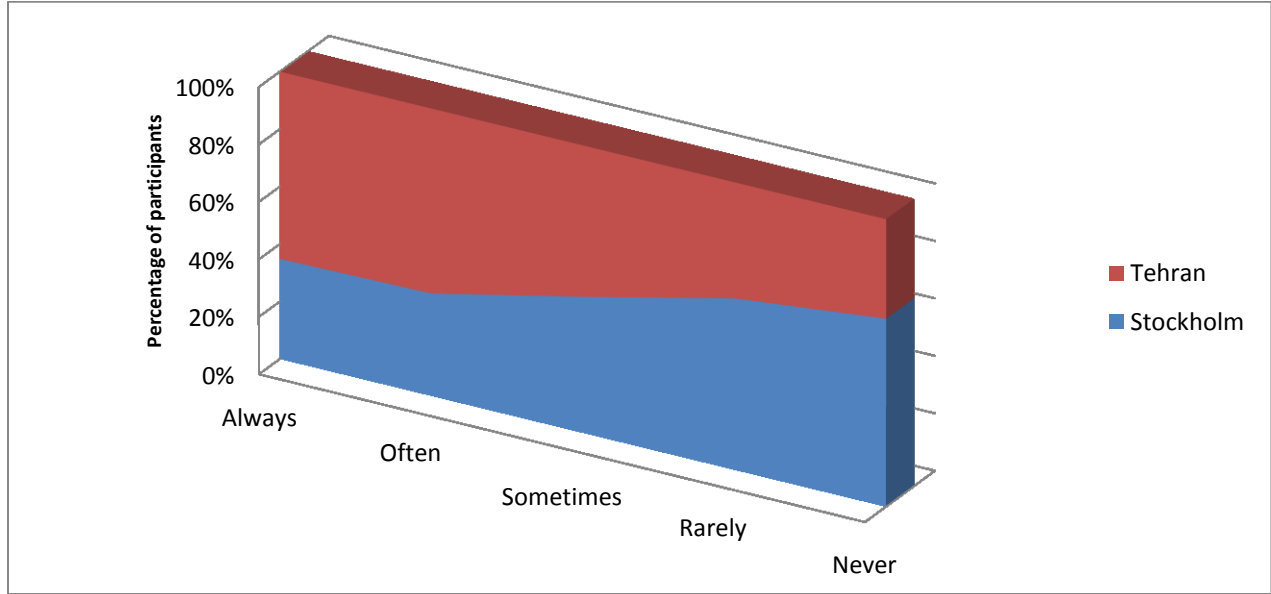


Figure 38: 3D chart of knowing neighbors distribution in two cities

Table 26: Using public transportation (%)

I use public transportation.	Always	Often	Sometimes	Rarely	Never
Stockholm	57	18	14	7	4
Tehran	9	26	39.5	12.5	13

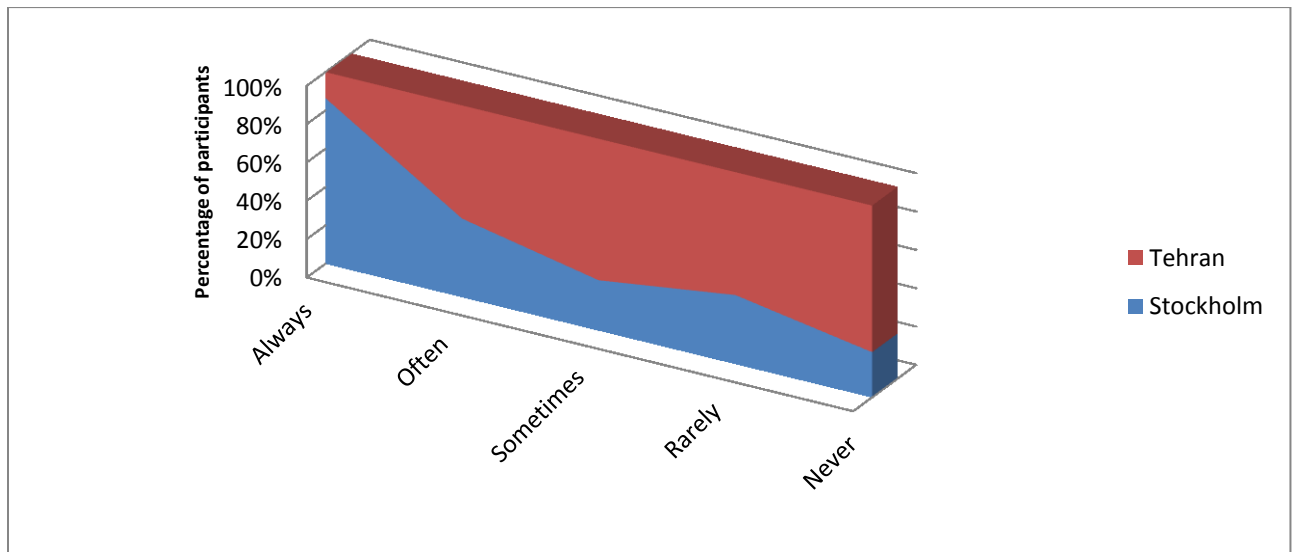


Figure 39: 3D chart of using public transportation distribution in two cities

Table 27: Feeling safety (Physical environment safety indicators overview)

Physical environment safety indicators		Stockholm (Mean)	Tehran (Mean)
1	I feel secure where I live.	4.25	2.63
2	I feel secure on the main street.	4.33	2.79
3	I feel secure on local parks.	3.91	2.64
4	I feel secure passing deserted (not crowded) places.	3.56	2.34
5	I feel secure passing construction sites.	3.73	2.29
6	I feel secure in residential areas without shops.	3.97	2.77
7	I feel secure where windows are facing the walk side.	4.25	2.99
8	I feel secure in crowded and busy pedestrian walks with shops.	4.21	2.92
9	I feel secure passing zebra crossing.	4.32	2.93
10	I feel insecure passing streets with bushes and tall trees.	2.92	3.18
11	The light of the street where I live is good enough.	4.05	2.86
12	I feel secure in darkness.	3.38	2.74
13	I feel rather secure on days than nights.	3.91	3.35
14	I feel insecure in dead-end allies.	3.26	3.17
15	I feel secure waiting for bus or a friend.	4.27	2.95
16	I know my neighborhood.	4.06	3.24
17	I know my neighbors.	2.56	3
18	I use public transportation.	4.17	3.06

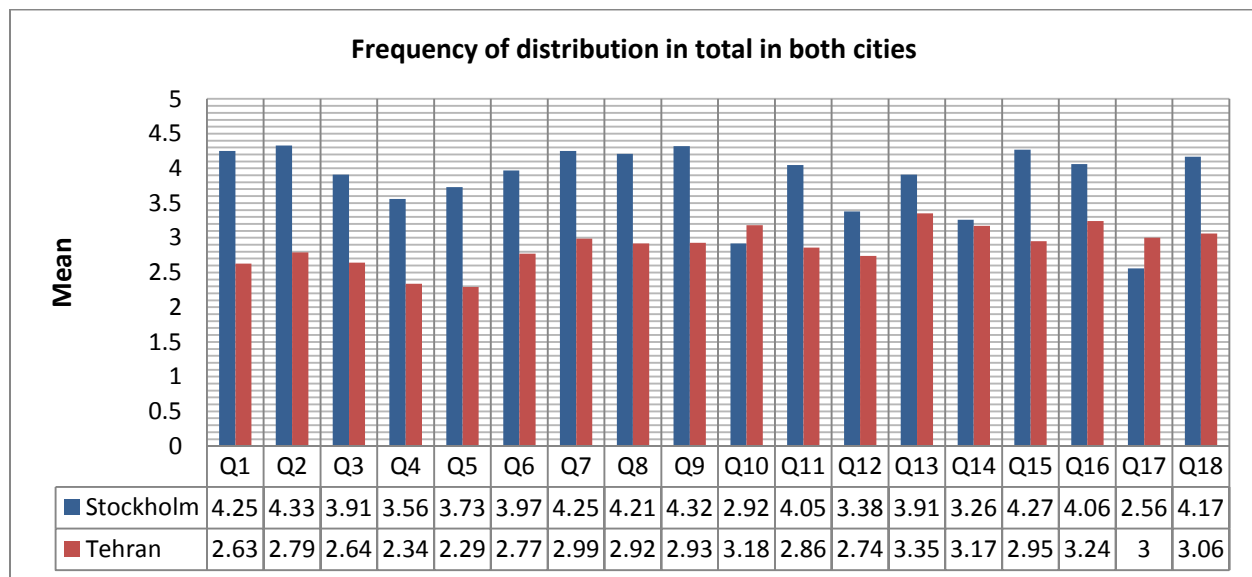


Figure 40: Frequency distribution of mean total in both cities

4.5. Index of fear of crime

In this part we analyze the levels of indicators from fear of crime in both cities and you can see the results below. (Table 28)

Stockholm: according to range of mean and also mean and SD, results describe level of fear of crime in this city is rather low.

Tehran: to range of mean and also mean and SD, results shows that fear of crime in the city is in a rather moderate towards high rate. (Range between 5-25 . 5 means who answered 1 in Likert in 5 questions and 25 for who answer 5 in 5 questions)

Table 28: Levels of fear of crime indicators

City	Mean (5-25)	Standard Division
Stockholm	14	3.06
Tehran	15.5	2.83

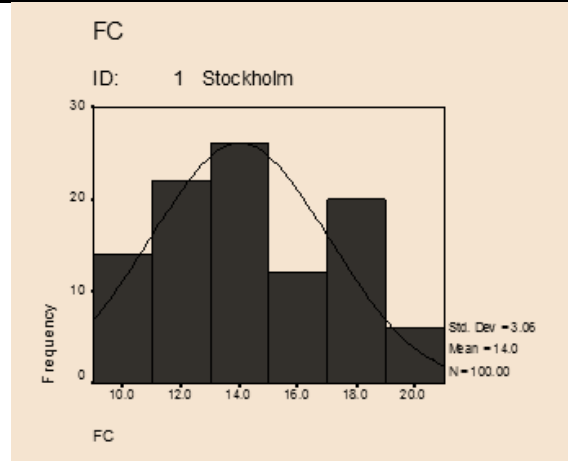


Figure 41: Levels of fear of crime indicators in Stockholm

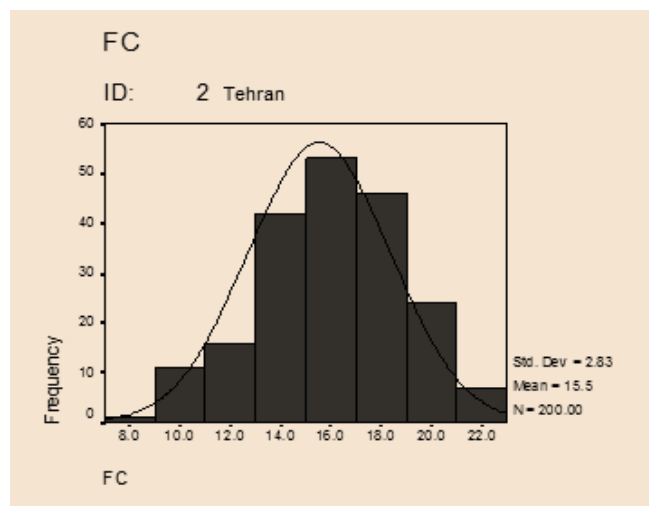


Figure 42: Levels of fear of crime indicators in Tehran

4.6. Survey the constructive item for index of Fear of crime

Five questions to measure these indicators have been adjusted based on Likert scale (Five-point item). Table below (Table 29 to Table 33) shows the frequency distribution for each question in both cities.

Table 29: Feeling fearful about some risk of crime in neighborhood (%)

I am not anxious or fearful about some risk of crime in my neighborhood	Never	Rarely	Sometimes	Often	Always
Stockholm	2	16	21	55	6
Tehran	8	26.5	55	10	0.5

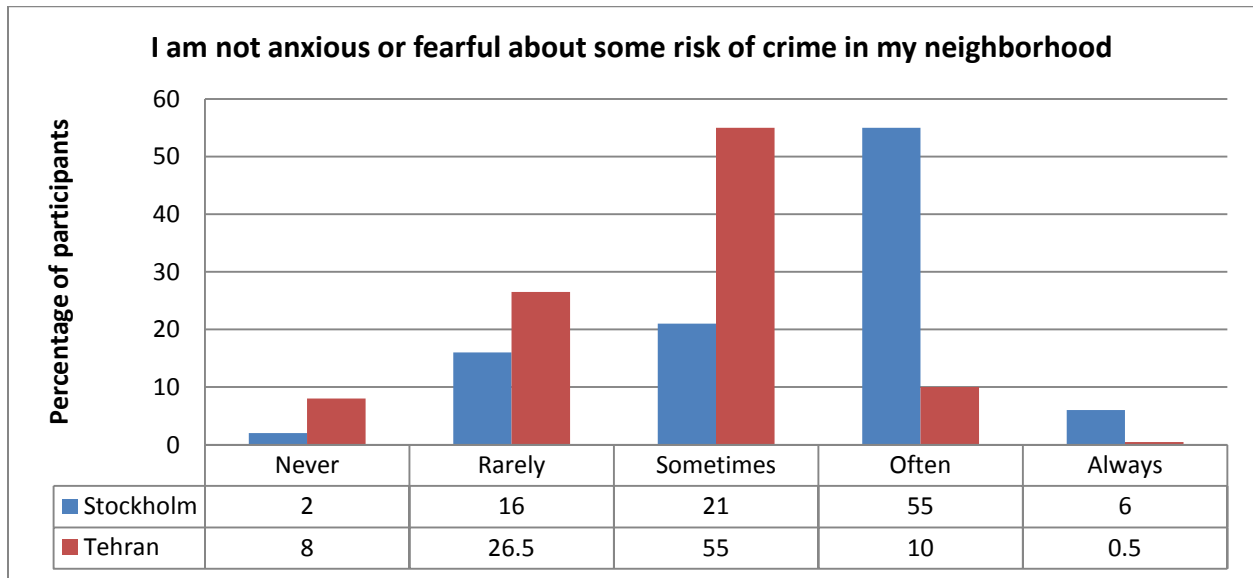


Figure 43: Distribution of feeling fearful about some risk of crime in neighborhood

Table 30: Feeling scared for close family to walk in neighborhood. (%)

I feel scared for my close family to walk in neighborhood.	Never	Rarely	Sometimes	Often	Always
Stockholm	14	52	16	12	6
Tehran	5.5	22.5	40.5	23	8.5

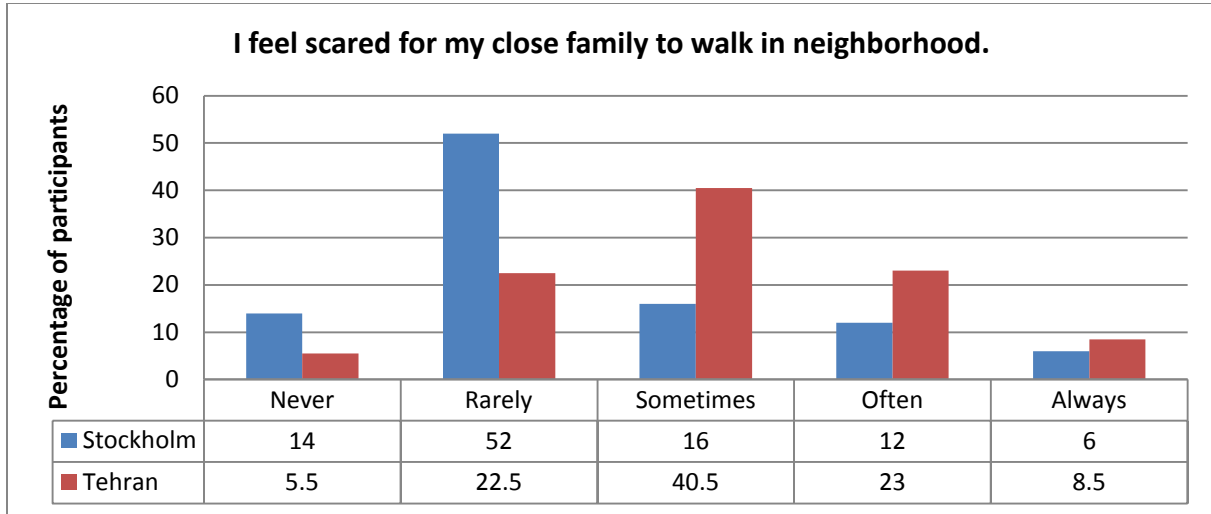


Figure 44: Distribution of feeling scared for close family to walk in neighborhood

Table 31: Feeling insecurity faced of stranger passersby (%)

Accumulation of stranger passersby will not feel of insecurity.	Never	Rarely	Sometimes	Often	Always
Stockholm	0	58	20	16	6
Tehran	10.5	22.5	53	12.5	1.5

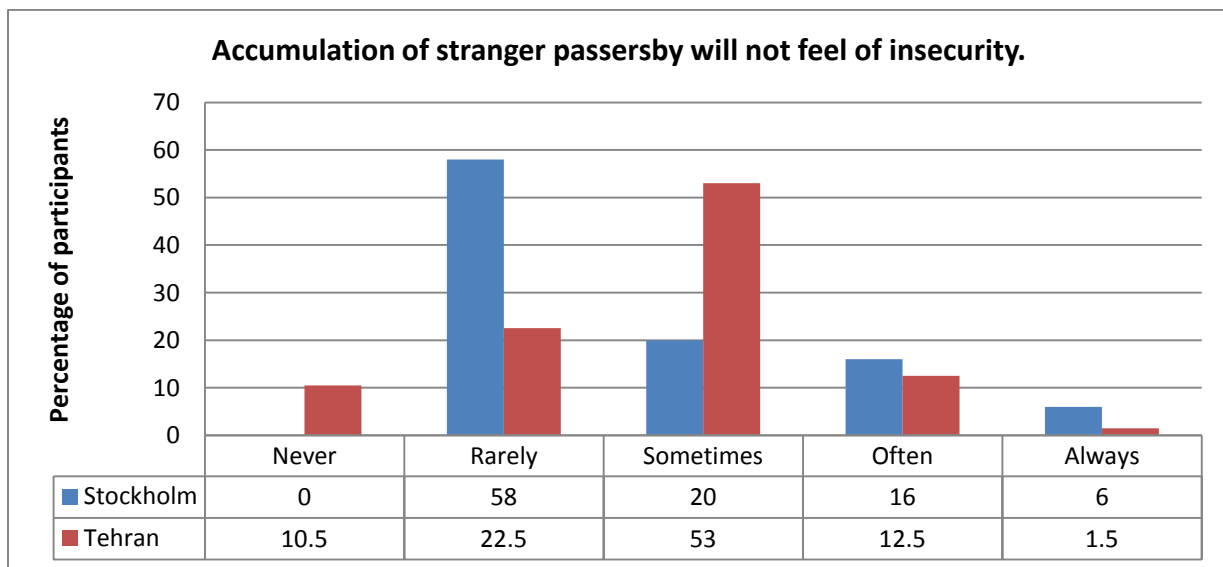


Figure 45: Distribution of feeling insecurity faced of stranger passersby

Table 32: Doing work during days rather than nights (%)

I prefer to do my stuff during days rather than nights.	Never	Rarely	Sometimes	Often	Always
Stockholm	3	14	29	44	10
Tehran	5	20	28	31	16

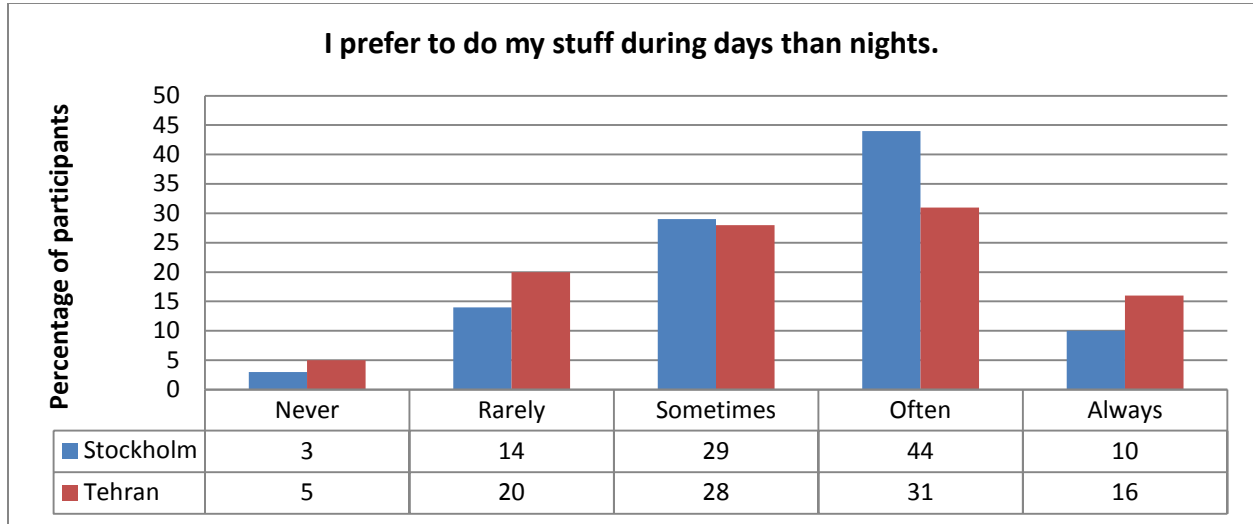


Figure 46: Distribution of doing stuff during days rather than nights

Table 33: Feeling fear when passing the borders of neighborhood (%)

Feeling fear when I passing the borders of my neighborhood	Never	Rarely	Sometime s	Often	Always
Stockholm	5	35	32	22	6
Tehran	6.5	17.5	44.5	24.5	7

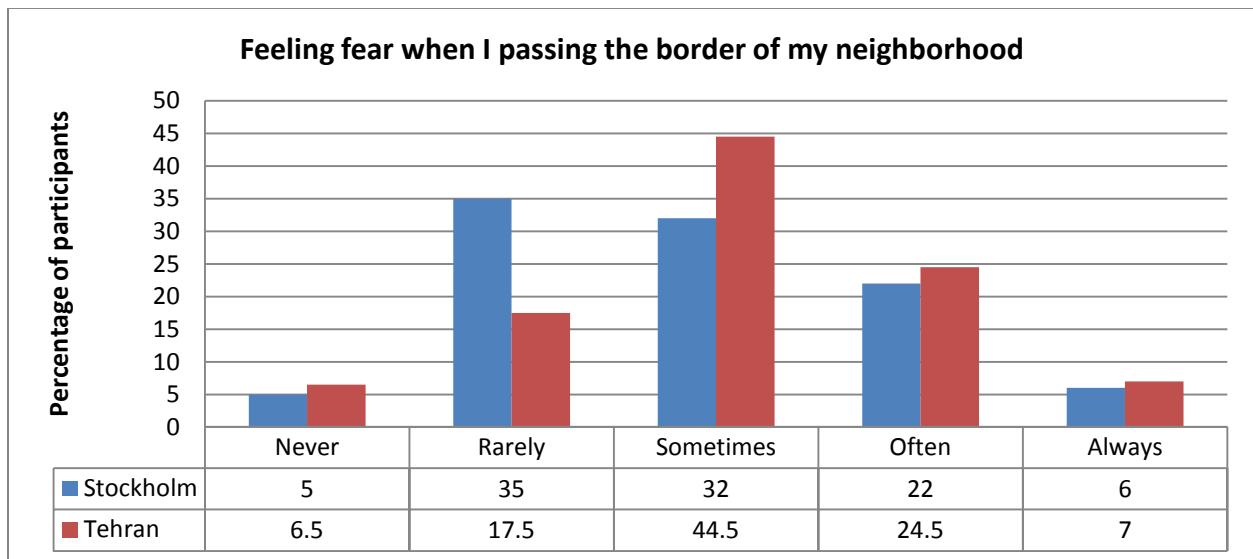


Figure 47: Distribution of feeling fear when passing the borders of neighborhood

Table 34: Fear of crime indicators

	Fear of crime indicator	Stockholm (Mean)	Tehran (Mean)
1	I am not anxious or fearful about some risk of crime in my neighborhood	3.47	2.69
2	I feel scared for my close family to walk in neighborhood.	2.44	3.07
3	Accumulation of stranger passersby will not feel of insecurity.	2.7	2.72
4	I prefer to do my stuff during days than nights.	3.44	3.33
5	Feeling fear with I passing the border of my neighborhood	2.89	3.08

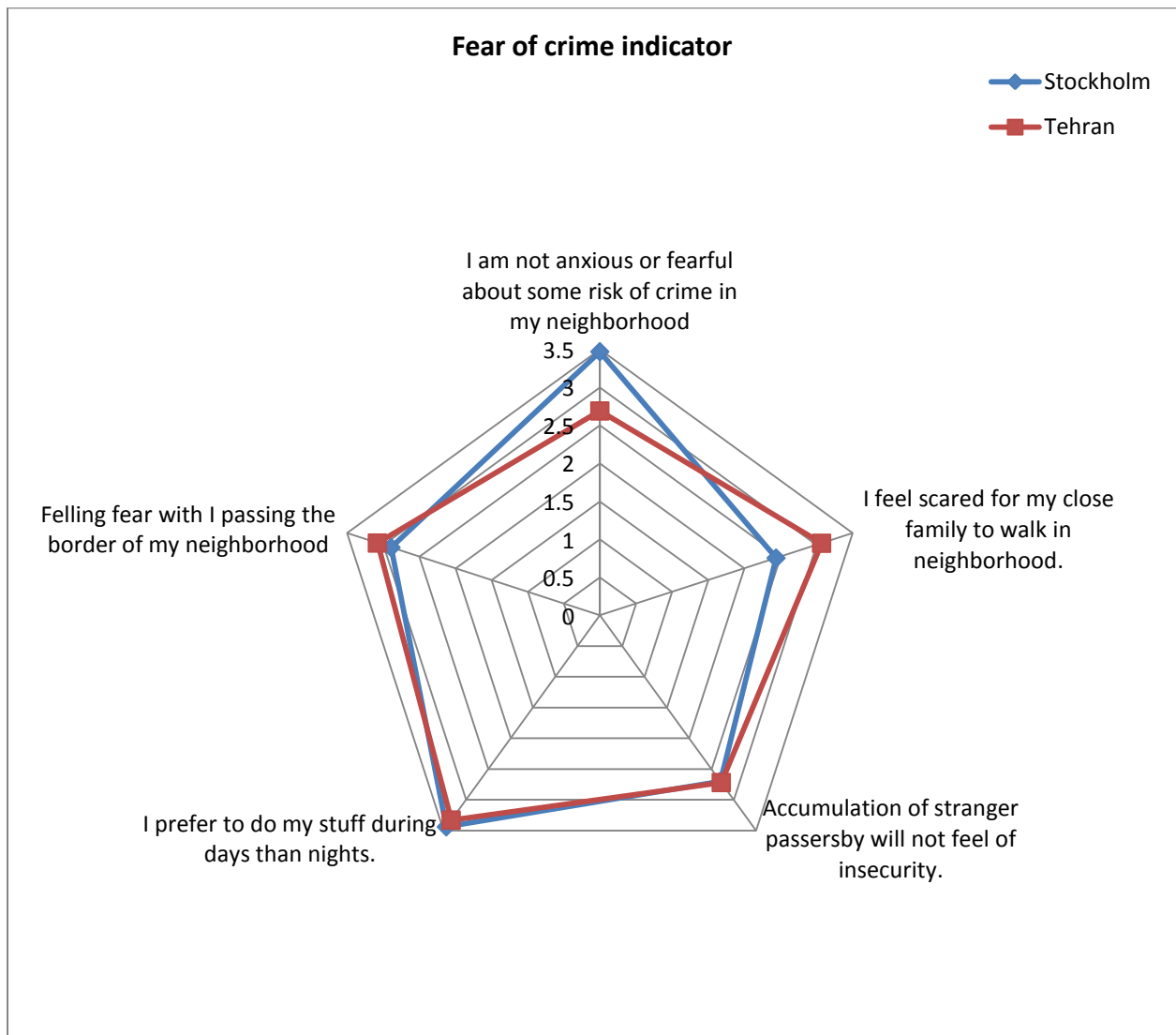


Figure 48: Radar chart - fear of crime indicator

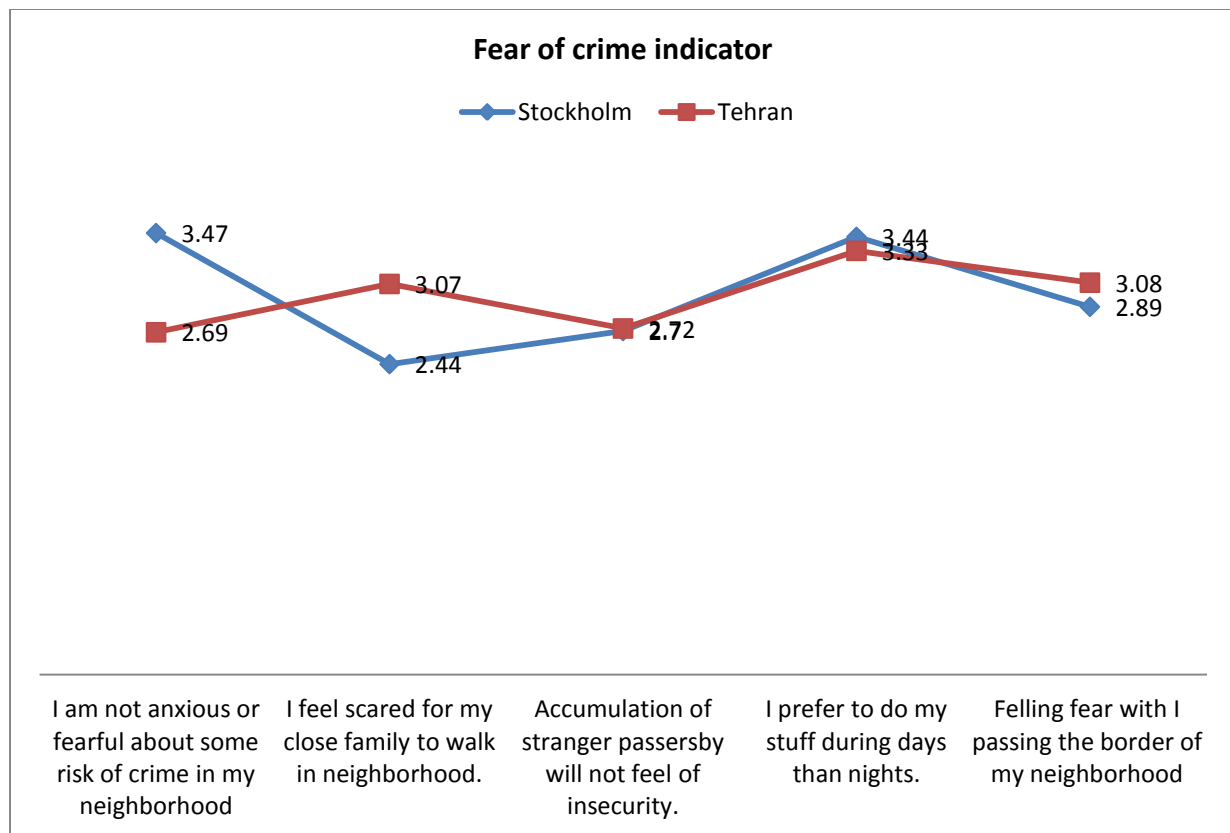


Figure 49: 2D line chart for distribution of fear of crime indicator in two cities

4.7. Index of crime experience

In this section we will review statistical indicators that show us the experience of crime: in both cities and in comparison between those.

According to SD and the mean (Table 35), the experience of crime in **Stockholm** is rather low, as it is shown to be low in **Tehran** as well but still rather higher than **Stockholm**.

Table 35: Index of crime experience

City	Mean (4-24)	Standard Division
Stockholm	7.20	2.39
Tehran	10.74	3.71

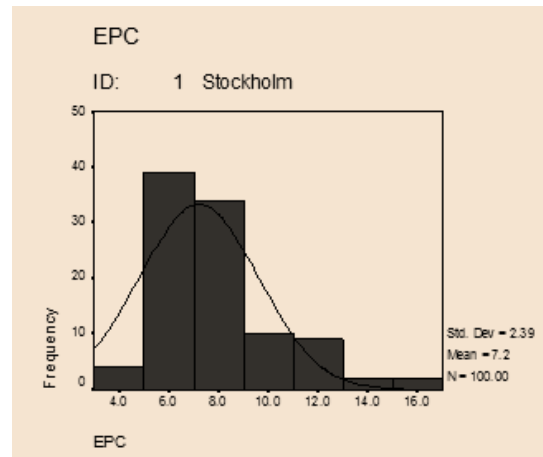


Figure 50: Index of crime experience in Stockholm

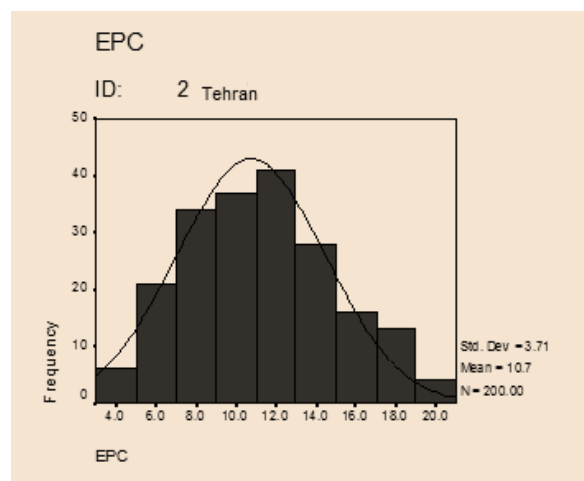


Figure 51: Index of crime experience in Tehran

4.8. Survey the constructive item for index of crime experience:

Five questions to measure these indicators have been adjusted based on Likert scale (six-point item). Tables below (Table 36 to Table 40) show the frequency of distribution for each question in both cities.

Table 36: Experience any kind of criminality on the street (%)

How much do you experience any kind of criminality on the street? (Neighborhood)	Never	Very Low	low	Neutral	Rather High	High
Stockholm	55	26	15	4	0	0
Tehran	35.5	27.5	24.5	10	2.5	0

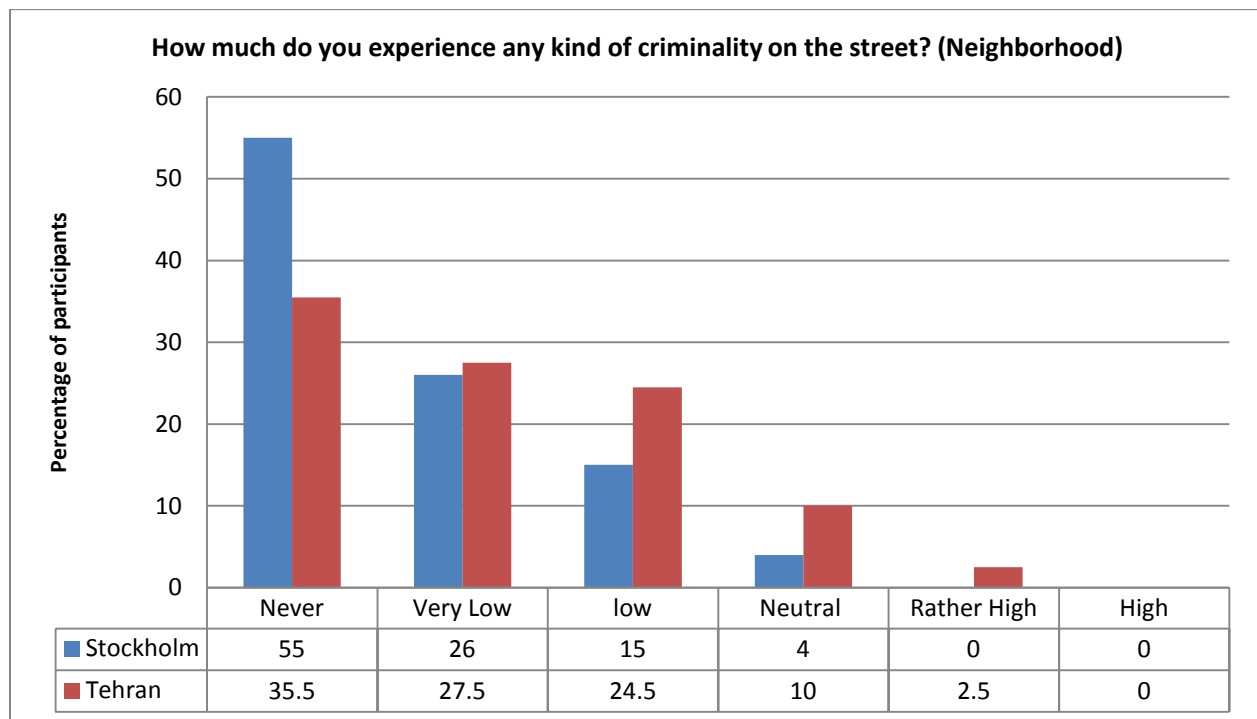


Figure 52: Distribution of experiencing any kind of criminality on the street

Table 37: Criminality happened to the family on the street (%)

How much any of your close family ever experienced any kind of criminality in your neighborhood?	Never	Very Low	low	Neutral	Rather High	High
Stockholm	58	26	16	0	0	0
Tehran	23.5	30	33	9.5	4	0

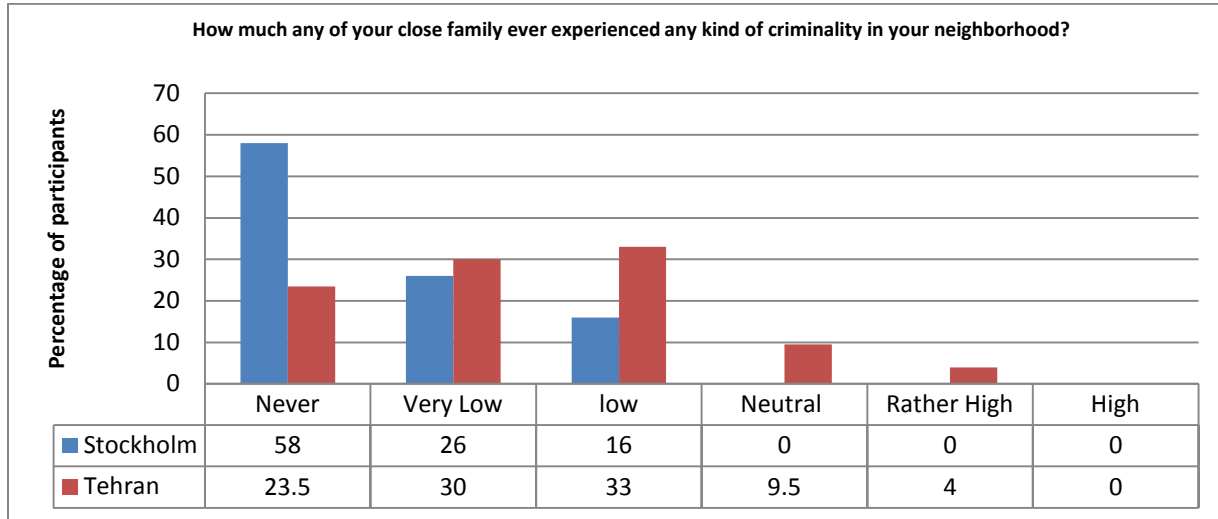


Figure 53: Distribution of Criminality that happened to the family on the street

Table 38: Seeing any kind of criminality in your neighborhood (%)

How much you ever seen any kind of criminality for somebody else in your neighborhood?	Never	Very Low	low	Neutral	Rather High	High
Stockholm	51	41	0	0	6	2
Tehran	12.5	27	31	19.5	7.5	2.5

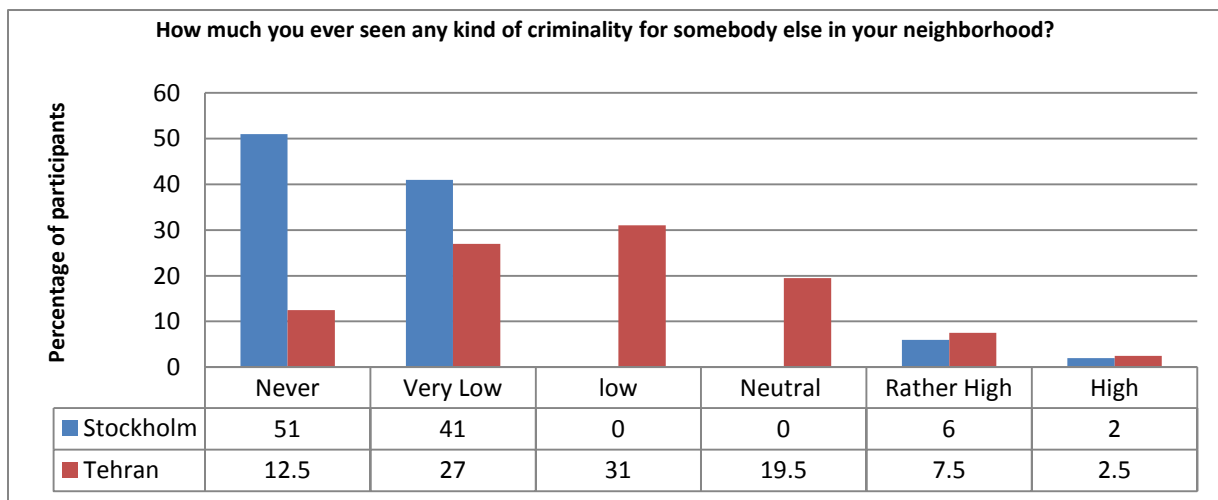


Figure 54: Distribution of seeing any kind of criminality in neighborhood

Table 39: Hearing any kind of criminality in your neighborhood (%)

How much you ever heard that any kind of criminality happened for someone else in your neighborhood?	Never	Very Low	low	Neutral	Rather High	High
Stockholm	19	50	22	4	2	3
Tehran	5.5	22.5	32.5	21.5	14.5	3.5

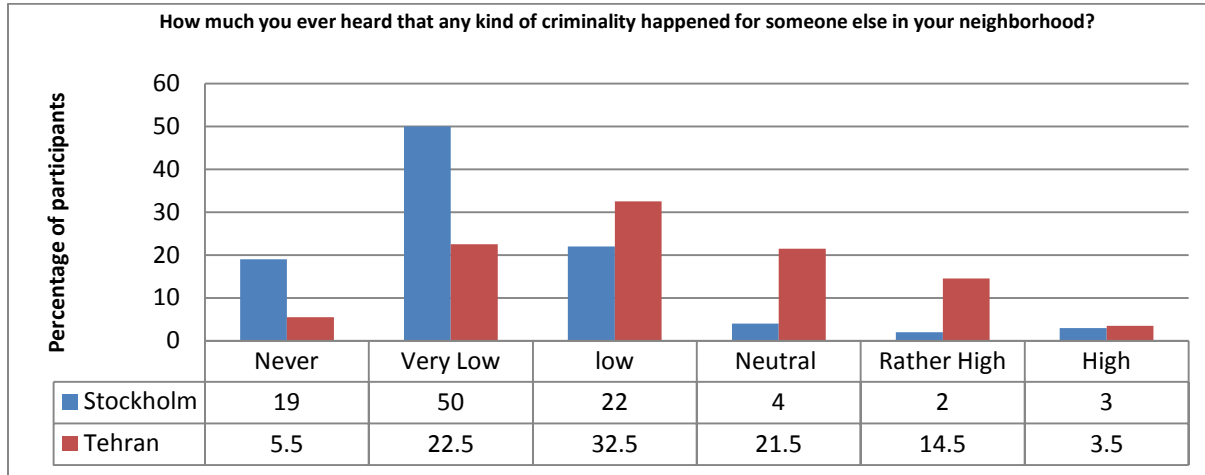


Figure 55: Distribution of hearing any kind of criminality in neighborhood

Table 40: Feeling insecure if living somewhere that notorious in criminality (%)

If I was living in Tensta (Rah-e-ahan) instead of your neighbors, I would rather feel insecure.	Never	Very Low	low	Neutral	Rather High	High
Stockholm	7	13	10	19	15	36
Tehran	9.5	12	24	23.5	17	14

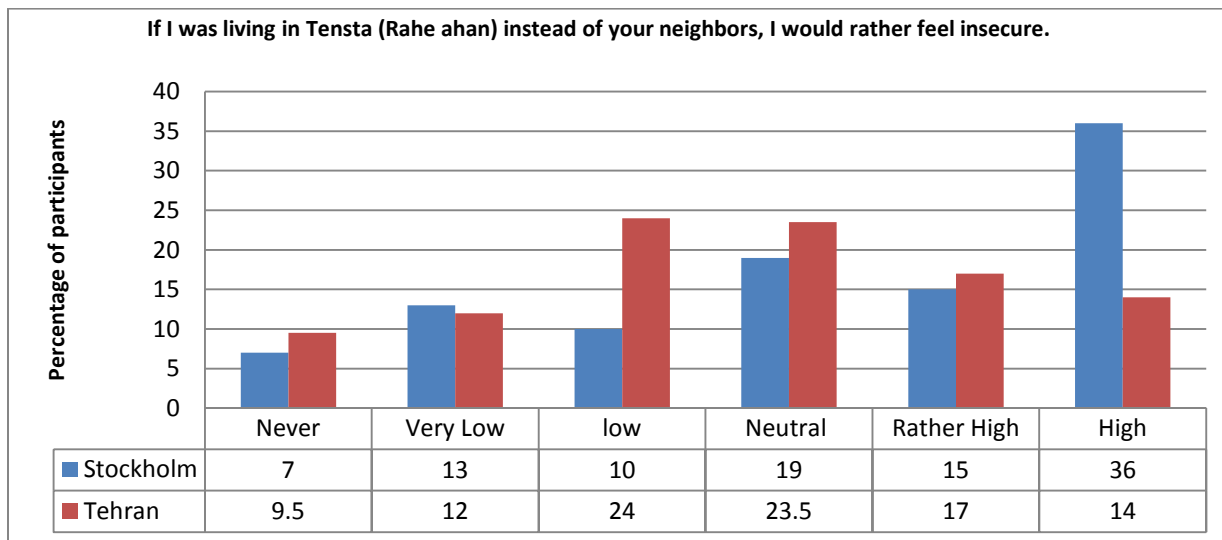


Figure 56: Distribution of feeling insecure if living somewhere that notorious in criminality

Table 41: Constructive items for index of crime experience

	Index of crime experience	Stockholm	Tehran
1	How much do you experience any kind of criminality on the street? (Neighborhood)	1.68	2.17
2	How much any of your close family ever experienced any kind of criminality in your neighborhood?	1.58	2.4
3	How much you ever seen any kind of criminality for somebody else in your neighborhood?	1.63	2.9
4	How much you ever heard that any kind of criminality happened for someone else in your neighborhood?	2.29	3.28
5	If I was living in Tensta (rah-e-ahan) instead of your neighbors, I would rather feel insecure.	4.3	3.69

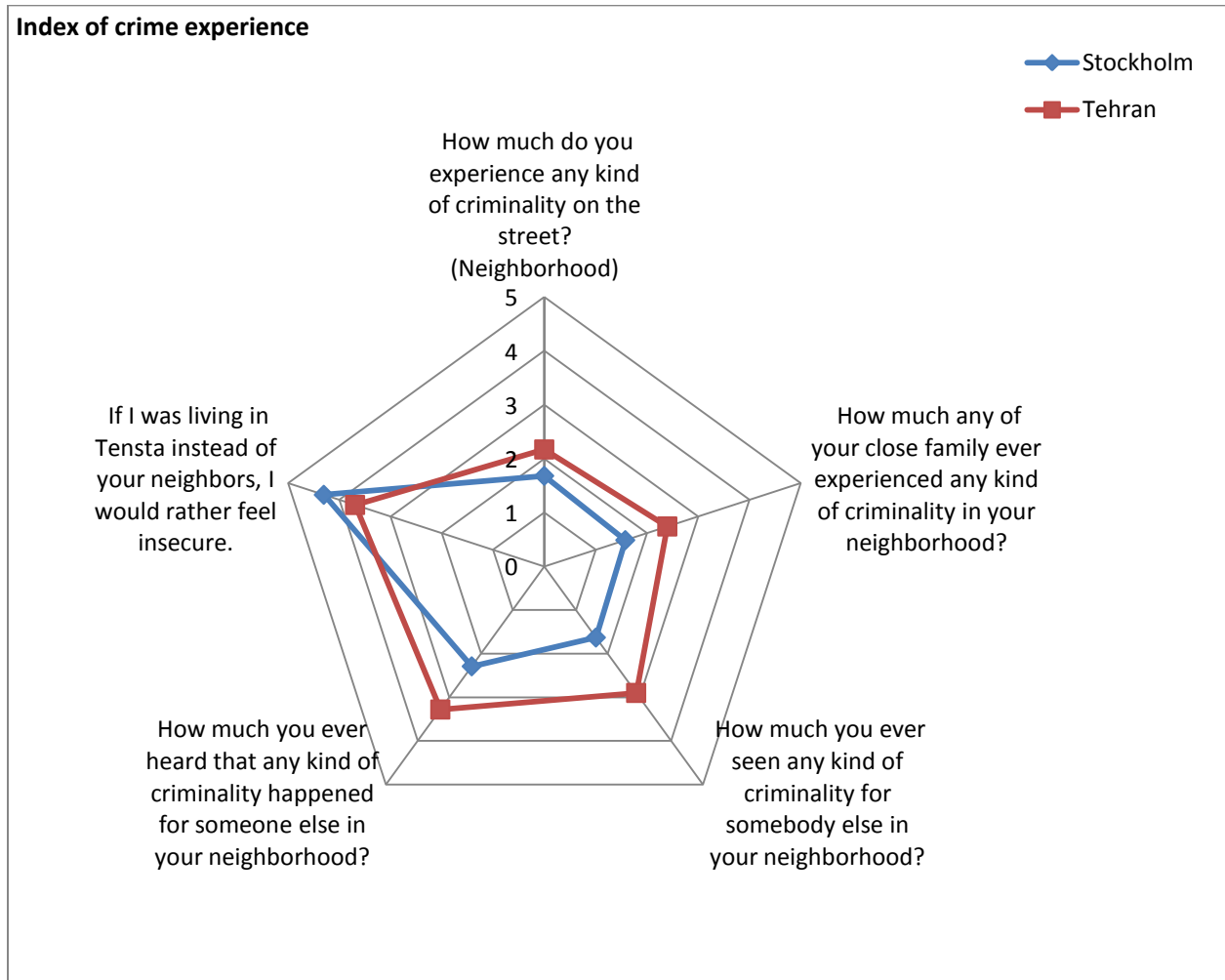


Figure 57: Radar chart - experience of crime indicator

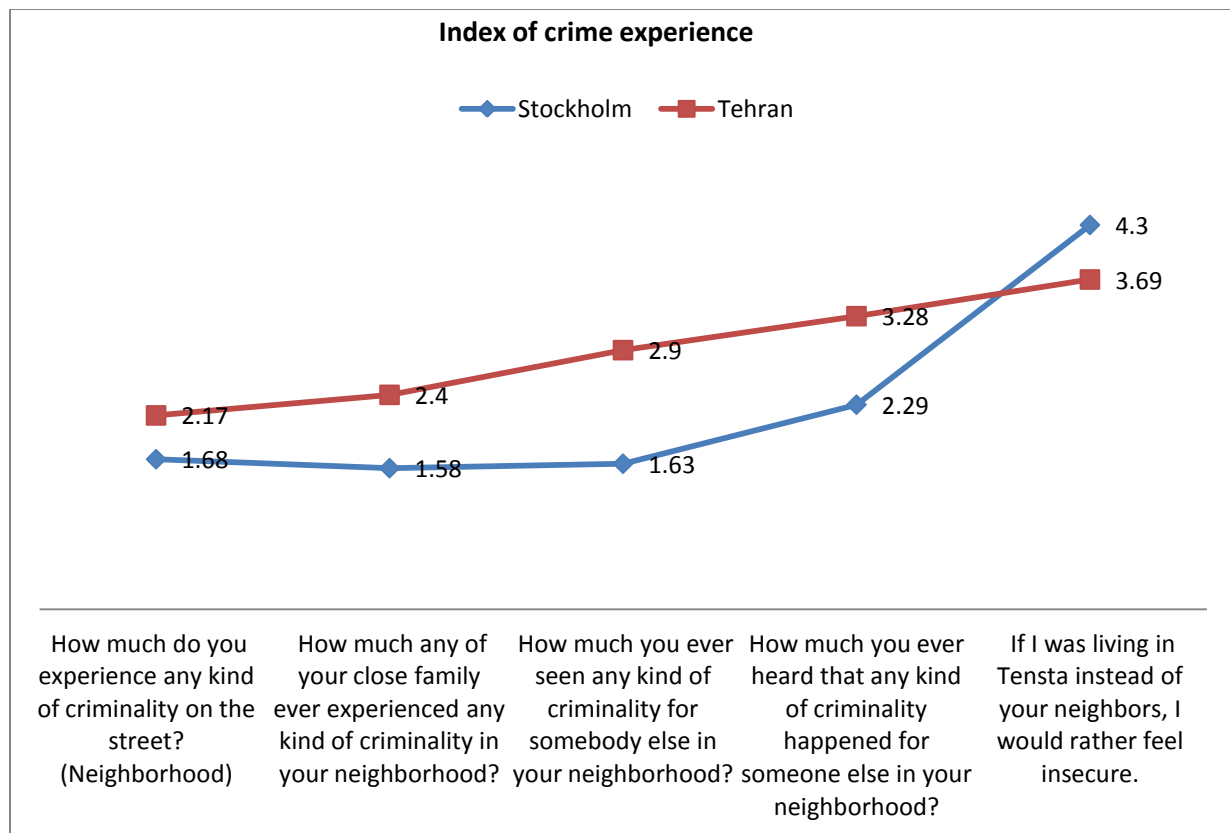


Figure 58: 2D line chart for distribution of crime experience indicator in two cities

4.9. Index of crime rate:

In this section we will reviews the statistical indicators that show us the crime rate from participates' view in the cities and a comparison between those.

According to SD and the mean (Table 42), the crime rate in **Stockholm** is low also as it is in **Tehran**.

Table 42: Index of crime rate

City	Mean (2-10)	Standard Division
Stockholm	3.90	1.42
Tehran	4.90	1.50

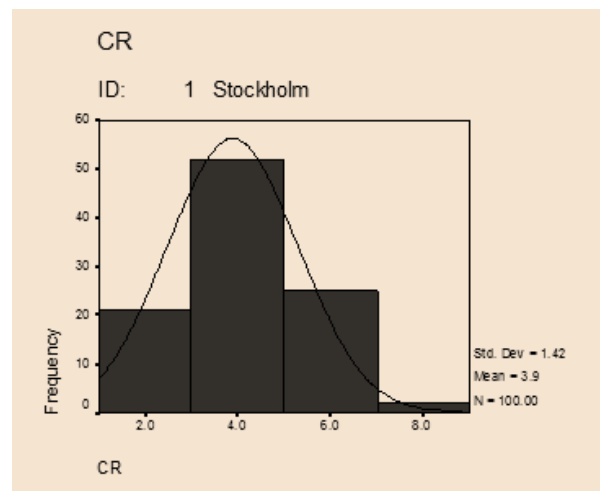


Figure 59: Index of crime rate in Stockholm

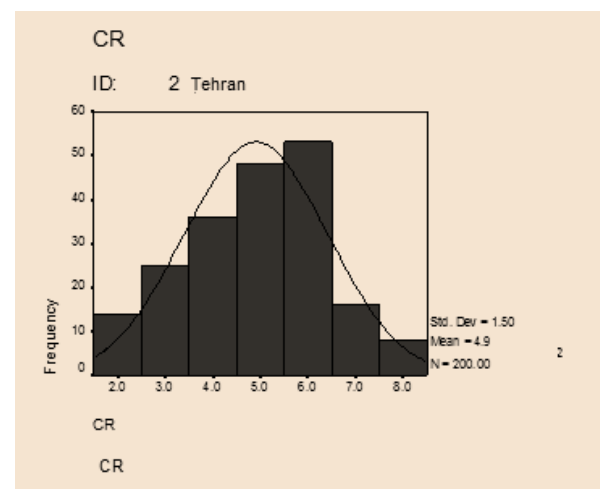


Figure 60: Index of crime rate in Tehran

4.10. Survey of the constructive item for index of crime rate:

Two questions to measure these indicators have been adjusted based on Likert scale (five-point item). Tables below (Table 43 to Table 44) show the frequency distribution for each question in both cities.

Table 43: Evaluation of crime in neighborhood (%)

My evaluation of crime in my neighborhood is	very low	Low	Average	Rather high	High
Stockholm	33	49	16	2	0
Tehran	14	32.5	43.5	10	0

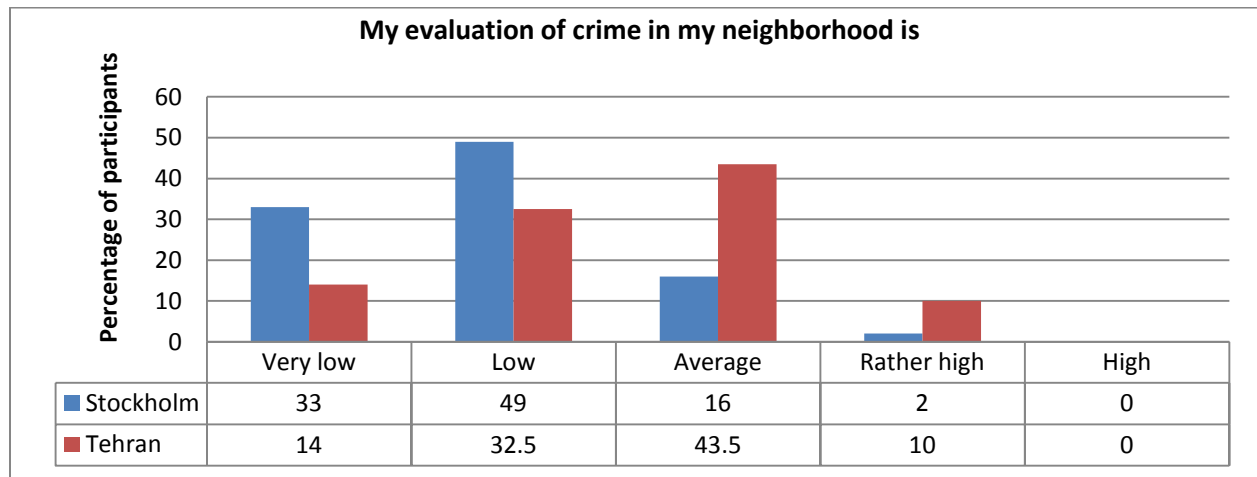


Figure 61: Distribution of evaluation of crime in neighborhood

Table 44: Evaluation of crime in neighborhood compared to other places (%)

My evaluation of crime in my neighborhood compared to other ones is	very low	Low	Average	Rather high	High
Stockholm	31	39	28	2	0
Tehran	14.5	37.5	41	6.5	0.5

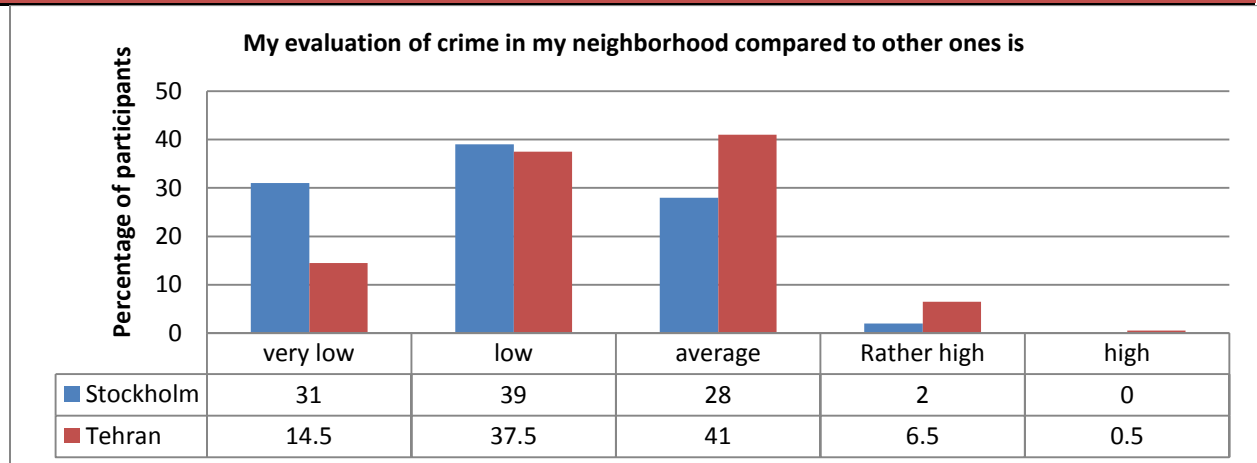


Figure 62: Distribution of evaluation of crime in neighborhood compared to other places

Table 45: Constructive items for index of crime rate:

	index of crime rate	Stockholm (Mean)	Tehran (Mean)
1	My evaluation of crime in my neighborhood is	1.87	2.5
2	My evaluation of crime in my neighborhood compared to other ones is	2.01	2.41

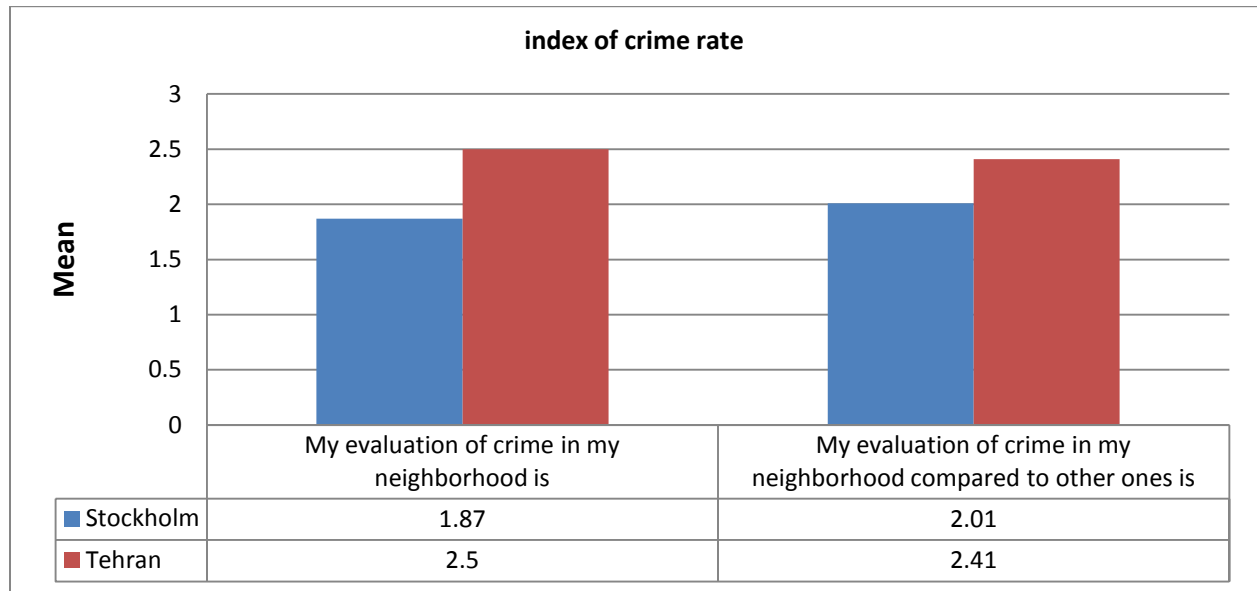


Figure 63: Distributions of constructive items for index of crime rate

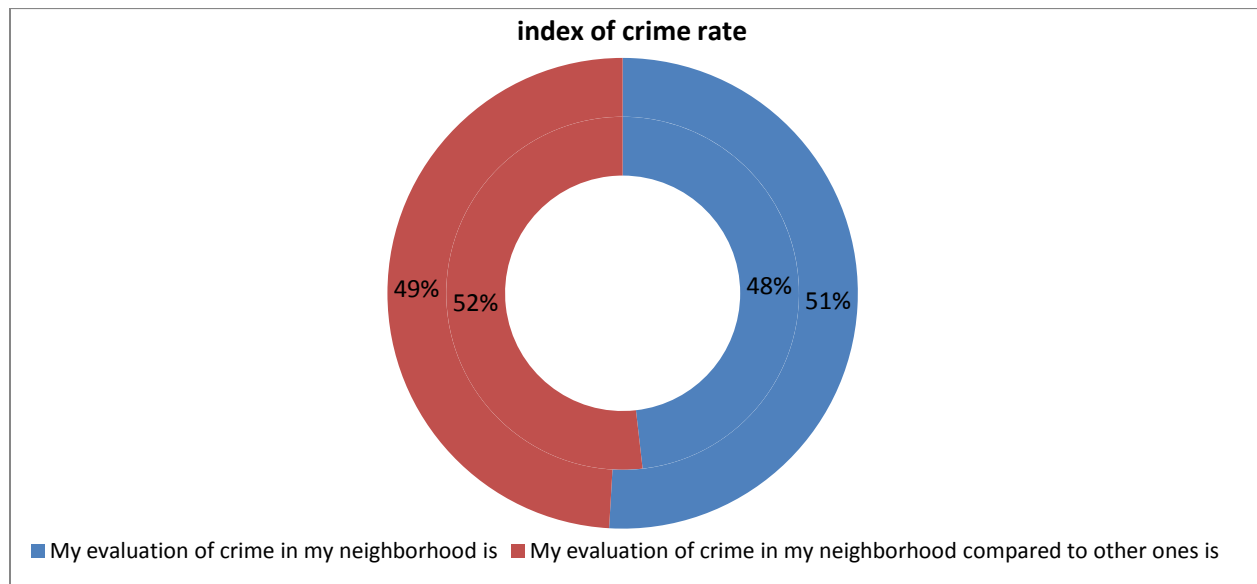


Figure 64: Doughnut charts of constructive items for index of crime rate in two cities

4.11. Comparison of feeling-safe average between two cities:

In order to compare two cities in **safety feeling**, **independent t-test** was used. The results are as follow (Table 46):

Table 46: Comparison average of feeling-safe average between two cities

Subject	City	Descriptive Statistics		t-Test for Equal Means		
		Mean	SD	T	df	Sig
Feeling Safety	Stockholm	67.33	7.58	16.286	298	0.001
	Tehran	51.9	7.8			

4.12. Comparison feeling safety and marital status:

In order to compare **the feeling safety** between **married and single**, **independent t-test** was used. The results are as follow (Table 47):

Table 47: Comparison feeling safety and marital status between two cities

Subject	City	Marital status	Descriptive Statistics		t-Test for Equal Means		
			Mean	SD	t	Df	Sig
Feeling safety	Stockholm	Single	68.03	6.89	1.291	98	0.2
		Married	65.97	8.71			
Feeling safety	Tehran	Single	52.77	8.59	1.504	198	0.134
		Married	51.08	6.91			

4.13. Comparison feeling safety and Sex:

In order to compare **the feeling safety** between **men and women**, **independent t-test** was used. The results are as follow (Table 48):

Table 48: Comparison feeling safety and Sex between two cities

Subject	City	Sex	Descriptive Statistics		t-Test for Equal Means		
			Mean	SD	t	Df	Sig
Feeling safety	Stockholm	women	66.64	7.37	-1.034	98	0.304
		men	68.23	7.85			
Feeling safety	Tehran	women	52.26	7.98	0.842	198	0.401
		men	51.31	7.52			

4.14. Comparison feeling safety and Employment status:

In order to compare **the feeling safety** between **employed and unemployed** people, **independent t-test** was used. The results are as follow (Table 49):

Table 49: Comparison feeling safety and Employment status between two cities

Subject	City	Employment status	Descriptive Statistics		t-Test for Equal Means		
			Mean	SD	T	Df	Sig
Feeling safety	Stockholm	employed	66.17	7.9	-2.070	98	0.041
		Unemployed	69.38	6.59			
Feeling safety	Tehran	Employed	51.38	7.61	-1.127	198	0.261
		Unemployed	52.64	8.07			

4.15. Comparison feeling safety and local or expatriates:

In order to compare **the feeling of safety** between native and nonnative, **independent t-test** was used. The results are as follows (Table 50):

Table 50: Comparison feeling safety and local or expatriates between two cities

Subject	City	Birthplace	Descriptive Statistics		t-Test for Equal Means		
			Mean	SD	t	df	Sig
Feeling safety	Stockholm	Native	68.28	6.74	1.952	98	0.054
		expatriates	65.1	8.98			
Feeling safety	Tehran	Native	52.18	8.17	1.541	198	0.125
		expatriates	50.93	7.37			

4.16. Comparison of feeling safety and Place of residence status:

In order to compare **the feeling of safety** between **owners and Tenants**, **independent t-test** was used. The results are as follows (Table 51):

Table 51: Comparison feeling safety and Place of residence status between two cities

Subject	City	Housing	Descriptive Statistics		t-Test for Equal Means		
			Mean	SD	t	Df	Sig
Feeling safety	Stockholm	Rental	67.04	7.6	-0.562	98	0.576
		Owned	67.96	7.63			
Feeling safety	Tehran	Rental	50.82	7.86	-1.935	198	0.054
		Owned	52.95	7.65			

4.17. Comparison of safety feeling and education level:

In order to compare **the safety feeling** between **educational levels**, **One-way ANOVA test** was used. The results are as follow (Table 52):

Table 52: Comparison feeling safety and education level between two cities

Subject	City	Education	Mean	Mean Squares		F ratio (msb/msw)	Level of significance
				MS Between	MS within		
Feeling safety	Stockholm	Under 12 years	-	128.185	55.308	2.318	0.08
		High school	65				
		Bachelor	69.72				
		Masters	67.82				
		PhD	63.87				
Feeling safety	Tehran	Under 12 years	52.09	5.205	62.139	0.084	0.987
		High school	51.85				
		Bachelor	51.87				
		Masters	51.53				
		PhD	54.33				

4.18. Comparison feeling safety and age groups:

In order to compare **the feeling safety** between **age** groups, **One-way ANOVA test** was used. The results are as follow (Table 53):

Table 53: Comparison feeling safety and age groups between two cities

Subject	City	Age	Mean	Mean Squares		F ratio	Level of significance
				MS Between	MS within	(msb/msw)	
Feeling safety	Stockholm	Less than 25	74.63	371.979	51.032	7.289	0.001
		25 - 35	67.13				
		Over 35	65.09				
Feeling safety	Tehran	Less than 25	54.37	265.49	85.217	4.029	0.019
		25 - 35	50.87				
		Over 35	51				

4.19. Comparison of safety-feeling indicators between cities:

In order to compare the safety feeling between cities, Mann–Whitney U test was used. The results are as follow (Table 54):

Table 54: Comparison of safety-feeling indicators between two cities

Items	City	Mean Rank	Mann-Whitney	Sig
Feel secure where live.	Stockholm	225.77	2473	0.001
	Tehran	112.87		
Feel secure on the main street.	Stockholm	223.68	2682.5	0.001
	Tehran	113.91		
Feel secure on local parks.	Stockholm	210.89	3961	0.001
	Tehran	120.31		
Feel secure passing deserted places.	Stockholm	208.88	4162	0.001
	Tehran	121.31		
Feel secure passing construction sites.	Stockholm	219.95	3055.5	0.001
	Tehran	115.78		
Feel secure in residential areas without shops.	Stockholm	218.23	3227.5	0.001
	Tehran	116.64		
Feel secure where windows are facing the walk side.	Stockholm	221.37	2913.5	0.001
	Tehran	115.07		
Feel secure in crowded pedestrian walks with shops.	Stockholm	215.94	3456	0.001
	Tehran	117.78		
Feel secure passing zebra crossing.	Stockholm	220.64	2986	0.001
	Tehran	115.43		
Feel insecure passing streets with bushes and tall trees.	Stockholm	139.94	8943.5	0.125
	Tehran	155.78		
The light of the street is good enough.	Stockholm	211.77	3873.5	0.001
	Tehran	119.87		
Feel secure in darkness.	Stockholm	185	6550	0.001
	Tehran	133.25		
Feel rather secure on days than nights.	Stockholm	180.88	6962	0.001
	Tehran	135.31		
Feel insecure in dead-end allies.	Stockholm	158.46	9204.5	0.234
	Tehran	146.52		
Feel secure waiting for bus or a friend.	Stockholm	221.98	2852	0.001
	Tehran	114.76		
Knowing neighborhood.	Stockholm	193.86	5664.5	0.001
	Tehran	128.82		
Knowing neighbors.	Stockholm	127.47	7696.5	0.001
	Tehran	162.02		
Using public transportation.	Stockholm	203.34	4716.5	0.001
	Tehran	124.08		

4.20. Comparison feeling of fear if living somewhere that is notorious on media:

In order to compare **the feeling of fear** between living in their neighborhoods or somewhere that is notorious in media from rate of crime, **Mann–Whitney U test** was used. The results are as follow (Table 55):

Table 55: Comparison of crime rate on media between two cities

item	Location	Mean Rank	Mann-Whitney	Sig
Living in Tensta (Rah-e-Ahan) Instead of your neighbors, I would rather feel insecure.	Stockholm	173.86	7664	0.001
	Tehran	138.82		

4.21. The relationship between type of crime and gender in both cities:

In order to investigate the relationship between **type of crime** and **gender** in two cities, **chi-squared test** was used. The results are as follow (Table 56).

Table 56: The relationship between type of crime and gender between two cities.

City	Crime Sex		Murder	Street fights	Drug Dealing	Rubbery	Accident	All	NONE	Chi-squared Test
Stockholm	Num	Women	0	2	2	17	0	57	36	Chi Square=7.95 df=5 Sig =0.047 Cramer =0.282
	%		0	3.5	3.5	29.8	0	100	63.2	
	Num	Men	0	4	4	4	0	43	31	
	%		0	9.3	9.3	9.3	0	100	72.1	
	Num	All	0	6	6	21	0	100	67	
	%		0	6	6	21	0	100	67	
Tehran	Num	Women	1	18	25	41	15	123	23	Chi Square=3.015 df=5 Sig =0.698
	%		0.8	14.6	20.3	33.3	12.2	100	18.7	
	Num	Men	2	14	13	26	12	77	10	
	%		2.6	18.2	16.9	33.8	15.6	100	13	
	Num	All	3	32	38	67	27	200	33	
	%		1.5	16	19	33.5	13.5	100	16.5	
All	Num	Women	1	20	27	58	15	180	59	Chi Square=3.327 df=5 Sig =0.650
	%		0.6	11.1	15	32.2	8.3	100	32.8	
	Num	Men	2	18	17	30	12	120	41	
	%		1.7	15	14.2	25	10	100	34.2	
	Num	All	3	38	44	88	27	300	100	
	%		1	12.7	14.7	29.3	9	100	33.3	

4.22. The relationship between feeling fear situation and gender in both cities:

In order to investigate the relationship between **feeling of fear situation** and **gender** in two cities, **chi-squared test** was used. The results are as follow (Table 57):

Table 57: The relationship between feeling fear situation and gender between two cities.

city	Fear Subject		Sex	Walking alone	Parking car on street	Holding cash	All	Chi-squared Test
Stockholm	Num	Women		23	5	29	57	Chi Square=1.197 df=2 Sig =0.550
	%			40.4	8.8	50.9	100	
	Num	Men		15	2	26	43	
	%			34.9	4.7	60.5	100	
	Num	All		38	7	55	100	
	%			38	7	55	100	
Tehran	Num	Women		27	48	48	123	Chi Square=2.302 df=2 Sig =0.698
	%			22	39	39	100	
	Num	Men		11	29	37	77	
	%			14.3	37.7	48.1	100	
	Num	All		38	77	85	200	
	%			19	38.5	42.5	100	
All	Num	Women		50	53	77	180	Chi Square=2.855 df=2 Sig =0.240
	%			27.8	29.4	42.8	100	
	Num	Men		26	31	63	120	
	%			21.7	25.8	52.5	100	
	Num	All		76	84	140	300	
	%			25.3	28	46.7	100	

4.23. The relationship between feeling scared and gender in both cities:

In order to investigate the relationship between **feeling Scared** and **gender** in two cities, **chi-squared test** was used. The results are as follow (Table 58):

Table 58: The relationship between feelings scared of crime and gender between two cities.

City	Feeling scared		Women	Men	All	Chi-squared Test
	Sex					
Stockholm	Num	Women	49	8	57	Chi Square=1.247 df=1 Sig =0.264
	%		86	14	100	
	Num	Men	40	3	43	
	%		93	7	100	
	Num	All	89	11	100	
	%		89	11	100	
Tehran	Num	Women	115	8	123	Chi Square=1.636 df=1 Sig =0.201
	%		93.5	6.5	100	
	Num	Men	68	9	77	
	%		88.3	11.7	100	
	Num	All	183	17	200	
	%		91.5	8.5	100	
All	Num	Women	164	16	180	Chi Square=0.105 df=1 Sig =0.746
	%		91.1	8.9	100	
	Num	Men	108	12	120	
	%		90	10	100	
	Num	All	272	28	300	
	%		90.7	9.3	100	

4.24. The relationship between being subject of a crime and gender in both cities:

In order to investigate the relationship between being **subject of a crime** and **gender** in both cities, **chi-squared test** was used. The results are as follow (Table 59)

Table 59: The relationship between being a subject of crime and gender between two cities.

City	Subject of crime		Women	Men	All	Chi-squared Test
		Sex				Chi Square = 0.537 df=1 Sig =0.464
Stockholm	Num	Women	33	24	57	
	%		57.9	42.1	100	
	Num	Men	28	15	43	
	%		65.1	34.9	100	
	Num	All	61	39	100	
	%		61	39	100	
Tehran	Num	Women	92	31	123	Chi Square = 0.876 df=1 Sig =0.349
	%		74.8	25.2	100	
	Num	Men	62	15	77	
	%		80.5	19.5	100	
	Num	All	154	46	200	
	%		77	23	100	
All	Num	Women	125	55	180	Chi Square = 1.094 df=1 Sig =0.296
	%		69.4	30.6	100	
	Num	Men	90	30	120	
	%		75	25	100	
	Num	All	215	85	300	
	%		71.7	28.3	100	

4.25. The relationship between safety of physical environment and fear of crime:

In order to investigate the relationship between **safety of physical environment** and **fear of crime** in two cities, **Pearson product-moment correlation coefficient** was used. The results are as follow (Table 60)

Table 60: Values for *Pearson correlation in relation between physical environment and fear of crime*

City	Pearson correlation in relation between physical environment and fear of crime		Physical Environment Safety	Fear of crime
Stockholm	Pearson Correlation	Physical Safety	1	-0.098
Tehran	Pearson Correlation	Physical Safety	1	-0.149*
All	Pearson Correlation	Physical Safety	1	-0.118*

4.26. The relationship between safety of physical environment and crime experience:

In order to investigate the relationship between **safety of physical environment** and **experience of crime** in both cities, **Pearson product-moment correlation coefficient** was used. The results are as follow. (Table 61)

Table 61: Values for *Pearson correlation in relation between physical environment and experience of crime*

City	Pearson correlation in relation between physical environment & experience of crime		Physical Environment Safety	experience of crime
Stockholm	Pearson Correlation	Physical Safety	1	-0.490**
Tehran	Pearson Correlation	Physical Safety	1	0.044
All	Pearson Correlation	Physical Safety	1	-0.362**

4.27. The relationship between safety of physical environment and rate of crime:

In order to investigate the relationship between **safety of physical environment** and **rate of crime** in the two cities, **Pearson product-moment correlation coefficient** was used. The results are as follow (Table 62):

Table 62: Values for *Pearson correlation in relation between physical environment and rate of crime*

City	Pearson correlation in relation between physical environment & rate of crime		Physical Environment Safety	Rate of crime
Stockholm	Pearson Correlation	Physical Safety	1	-0.318**
Tehran	Pearson Correlation	Physical Safety	1	-0.053
All	Pearson Correlation	Physical Safety	1	-0.258**

4.28. *The relationship between fear of crime and experience of crime:*

In order to investigate the relationship between **fear of crime** and **experience of crime** in two cities, **Pearson product-moment correlation coefficient** was used. The results are as follow (Table 63):

Table 63: Values for *Pearson correlation in relation between fear of crime and experience of crime*

City	Pearson correlation in relation between Fear of crime and perception of crime		Fear of crime	experience of crime
Stockholm	Pearson Correlation	Fear of crime	1	0.254*
Tehran	Pearson Correlation	Fear of crime	1	0.323**
All	Pearson Correlation	Fear of crime	1	0.366**

4.29. *The relationship between experience of crime and rate of crime:*

In order to investigate the relationship between **experience of crime** and **rate of crime** in both cities, **Pearson product-moment correlation coefficient** was used. The results are as follow (Table 64):

Table 64: Values for *Pearson correlation in relation between experience of crime and rate of crime*

City	Pearson correlation in relation between <i>experience crime</i> and rate of crime		<i>experiencing of crime</i>	Rate of crime
Stockholm	Pearson Correlation	<i>Experience of crime</i>	1	0.502**
Tehran	Pearson Correlation	<i>Experience of crime</i>	1	0.544**
All	Pearson Correlation	<i>Experience of crime</i>	1	0.588**

4.30. *The relationship between fear of crime and rate of crime:*

In order to investigate the relationship between **fear of crime** and **rate of crime** in two cities, **Pearson product-moment correlation coefficient** was used. The results are as follow (Table 65):

Table 65: Values for *Pearson correlation in relation between fear of crime and rate of crime*

City	Pearson correlation in relation between fear of crime and rate of crime		Fear of crime	Rate of crime
Stockholm	Pearson Correlation	Fear of crime	1	0.287**
Tehran	Pearson Correlation	Fear of crime	1	0.347**
All	Pearson Correlation	Fear of crime	1	0.375**

4.31. Comparison fear of crime between two cities by gender:

In order to compare these two cities in **fear of crime** by **gender**, **independent t-test** was used. The results are as follow (Table 66):

Table 66: Comparison fear of crime by gender between two cities

Index	City	Sex	Descriptive Statistics		t-Test for Equal Means		
			Mean	SD	T	df	Sig
Fear of crime	Stockholm	Women	14.07	2.99	0.263	98	0.793
		Men	13.9	3.16			
Fear of crime	Tehran	Women	15.67	2.77	1.04	198	0.3
		Men	15.24	2.92			

4.32. Comparison of crime experience between two cities by gender:

In order to compare two cities in **experience of crime** by **gender**, **independent t-test** was used. The results are as follow (Table 67):

Table 67: Comparison of crime experience by gender between two cities

Index	City	Sex	Descriptive Statistics		t-Test for Equal Means		
			Mean	SD	T	df	Sig
Experience of crime	Stockholm	Women	6.94	2.43	-1.219	98	0.226
		Men	7.53	2.31			
Experience of crime	Tehran	Women	10.38	3.7	-1.759	198	0.08
		Men	11.32	3.66			

4.33. Comparison rate of crime between both cities by gender:

In order to compare these two cities in **rate of crime** by **gender**, **independent t-test** was used. The results are as follow (Table 68):

Table 68: Comparison rate of crime by gender between two cities

Index	City	Sex	Descriptive Statistics		t-Test for Equal Means		
			Mean	SD	T	df	Sig
Rate of crime	Stockholm	Women	3.94	1.41	0.546	98	0.586
		Men	3.79	1.42			
Rate of crime	Tehran	Women	4.8	1.48	-1.192	198	0.235
		Men	5.06	1.53			

4.34. Comparison of fear of crime regarding marital status:

In order to compare these two cities in level of **fear of crime** by **marital status**, **independent t-test** was used. The results are as follow (Table 69):

Table 69: Comparison of fear of crime by marital status between two cities

Index	City	Marital Status	Descriptive Statistics		t-Test for Equal Means		
			Mean	SD	T	df	Sig
Fear of crime	Stockholm	Single	14.01	3.18	0.069	98	0.945
		Married	13.97	2.83			
Fear of crime	Tehran	Single	15.43	3.02	-0.348	198	0.728
		Married	15.57	2.65			

4.35. Comparison of crime experience between two cities by marital status:

In order to compare these two cities in **experience of crime** by **marital status**, **independent t-test** was used. The results are as follow (Table 70):

Table 70: Comparison of crime experience by marital status between two cities

Index	City	Marital Status	Descriptive Statistics		t-Test for Equal Means		
			Mean	SD	T	df	Sig
Experience of crime	Stockholm	Single	11.16	2.86	-1.492	98	0.139
		Married	12.14	3.55			
Experience of crime	Tehran	Single	14.23	4.3	-0.632	198	0.528
		Married	14.61	4.27			

4.36. Comparison rate of crime between both cities regarding marital status:

In order to compare these two cities in **rate of crime** by **marital status**, **independent t-test** was used. The results are as follow (Table 71):

Table 71: Comparison rate of crime by marital status between two cities

Index	City	Marital Status	Descriptive Statistics		t-Test for Equal Means		
			Mean	SD	T	df	Sig
Rate of crime	Stockholm	Single	3.81	1.39	-0.606	98	0.546
		Married	4	1.47			
Rate of crime	Tehran	Single	4.92	1.61	0.217	198	0.828
		Married	4.88	1.39			

5. Discussion:

In this section I will discuss some of result that I extract from data. Also I am going to find answers from the information that I found in the analyses section about all objects that I mentioned before in question form.

In the first part, I will discuss the feeling of safety of respondents in relation with indicators of physical environmental safety (part 1). It involves 18 questions (questions 1-1 to 1-18).Also in this part the safety feeling between Stockholm and Tehran will be compared.

After that I will discuss about the relation between the feeling of safety and demographic characteristics of respondents (such as marital status, gender, employment status, etc.) in the research locations (in Stockholm and Tehran).

In the next part, I will investigate the relations between gender of respondents and answers of question 2,3,4,5 to find out if there are differences between men and women or not.

In three questions relations between fears of crime, experience of crime, and rate of crime will be found out. (Question 6, 7, and 9)

In two questions the relation between experience of crime and rate of crime (question 7 and 9) will be assessed.

The relation of fear of crime, experience of crime and rate of crime with two demographical characteristics (gender and marital status) will be investigated in three questions (Question 6, 7, and 9).

And finally, I will inspect the level of feeling the safety in between livings in their neighborhoods or somewhere that is notorious in media from crime rates. (Question 7-5)

Physical environment safety indicators

1.1. I feel secure where I live.(Table 9)

According to Table 9, results show 87% of people who lives in Sundbyberg, are feeling secure where they live while just 17.5 % of Iranian people feel the same.

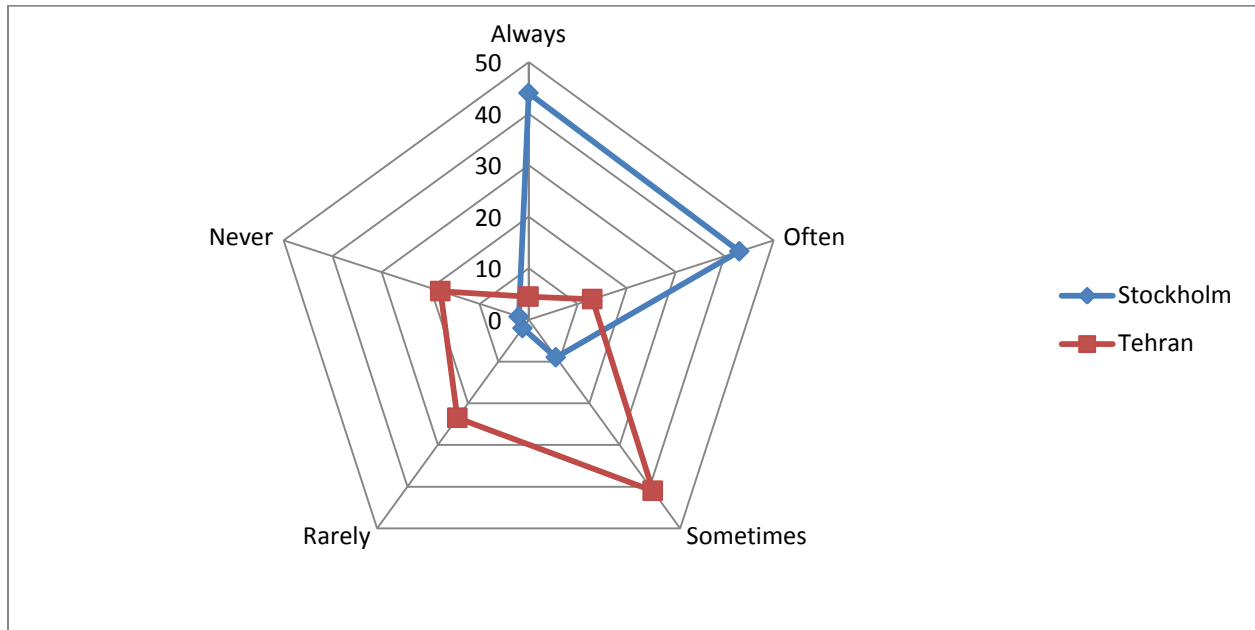


Figure 65: Radar chart of feeling secure in two cities

1.2. I feel secure on the main street.(Table 10)

Highlighting significant data in a Table 10 that 90% of Swedish participants feeling safe on the main street of their neighborhood but it is just 24.5% for other participants.

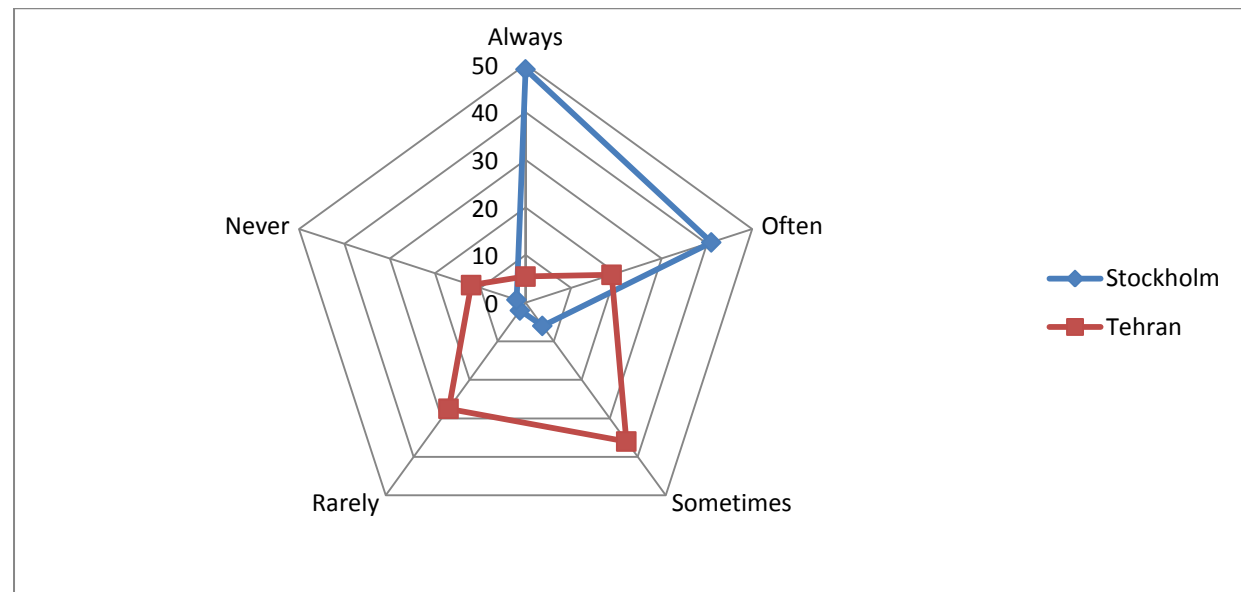


Figure 66: Radar chart of feeling secure on main the street in two cities

1.3. I feel secure on local parks. (Table 11)

It is apparent from this table that very few people who live in Stockholm site feel unsafe in their local parks (7%) and this number in Tehran is (43.5%) that is more than 6 times.

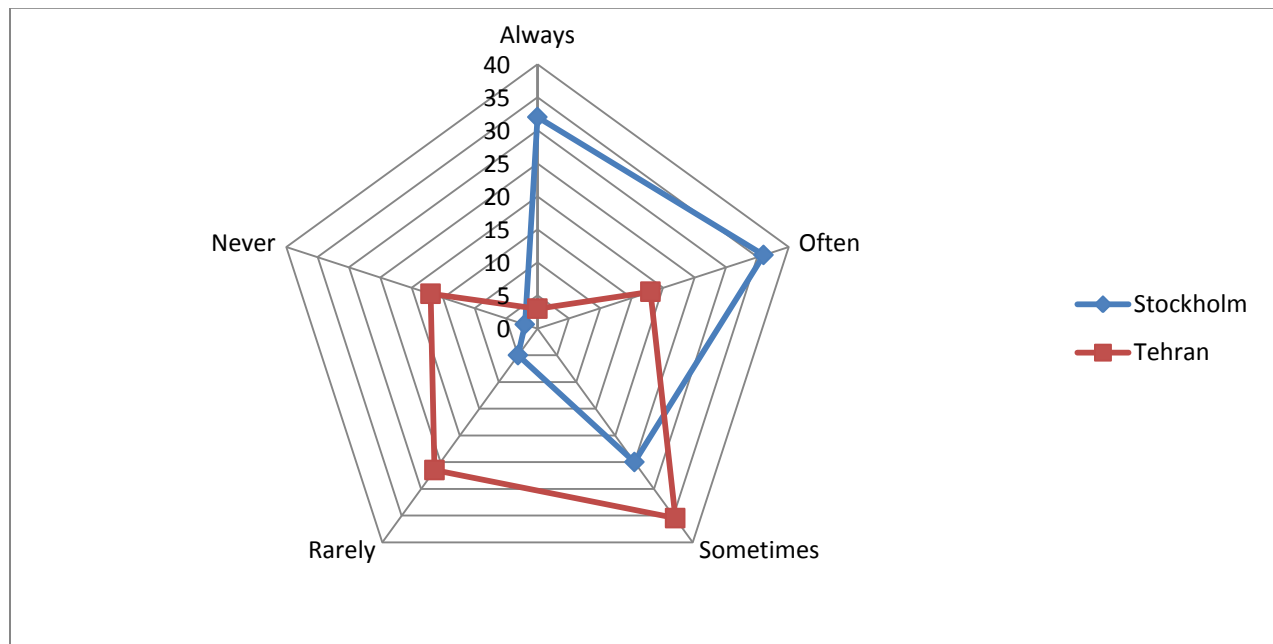


Figure 67: Radar chart of feeling secure on local parks in two cities

1.4. I feel secure passing deserted (not crowded) places.(Table 12)

Table 12 shows 52% of respondents are feeling safety in deserted places and this number in Tehran is 9%.

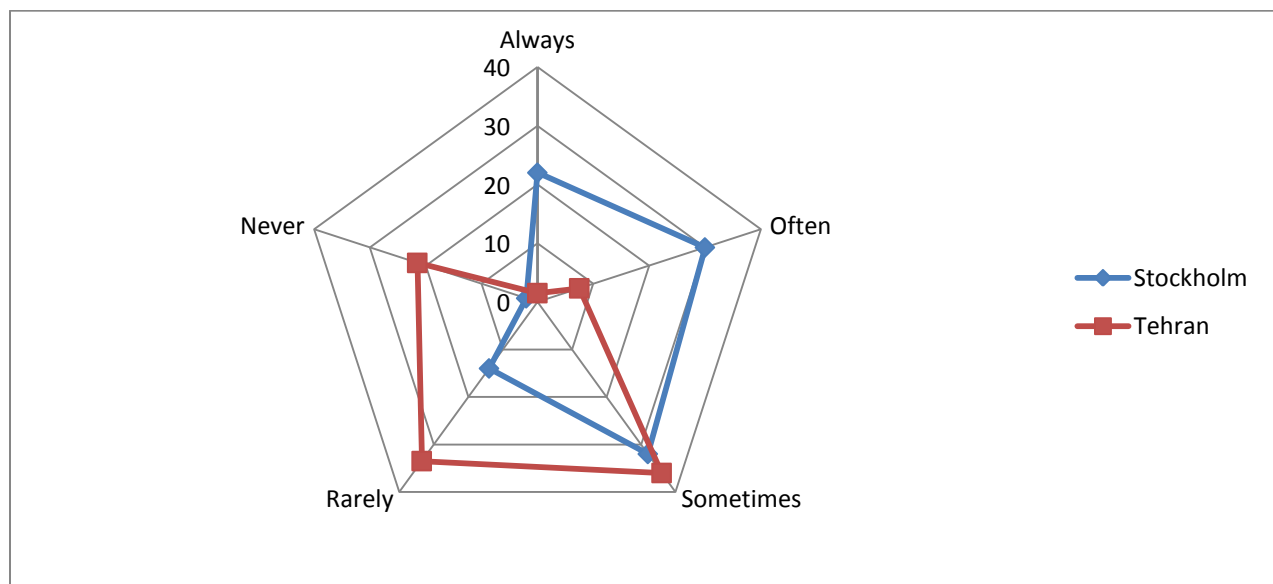


Figure 68: Radar chart of feeling secure passing deserted area in two cities

1.5. I feel secure passing construction sites.(Table 13)

It is apparent from this table that very few (6%) have feeling unsafe when they passing construction sites in Stockholm but this number is 55% in Tehran.

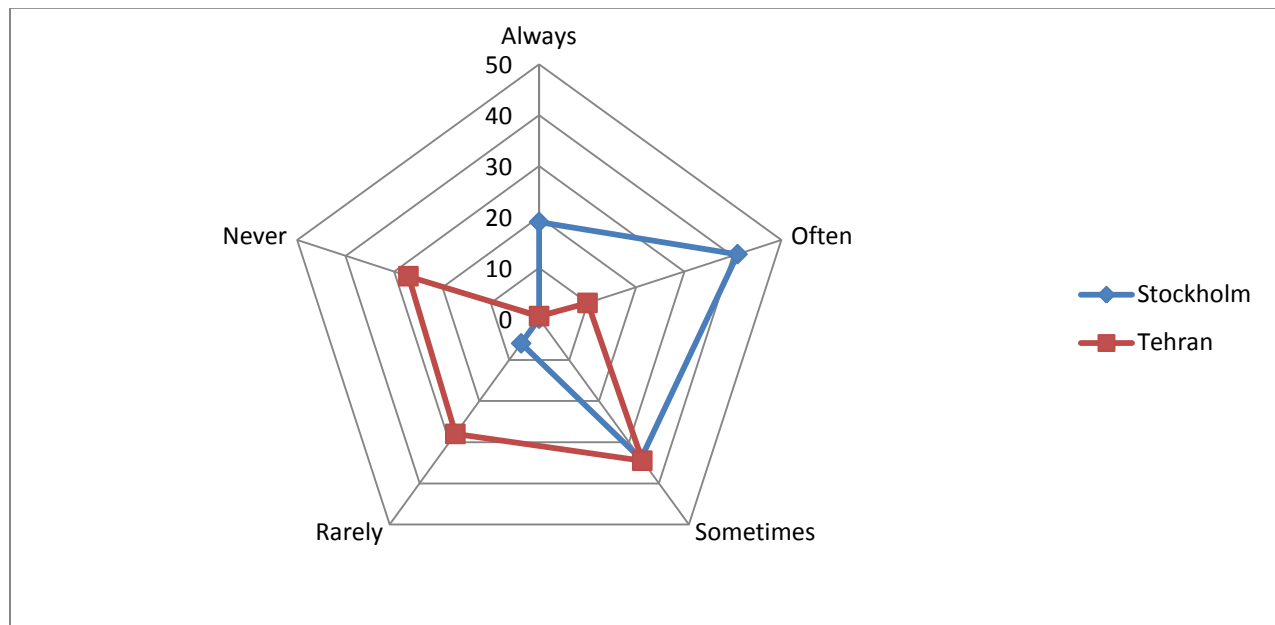


Figure 69: Radar chart of feeling secure passing construction sites in two cities

1.6. I feel secure in residential areas without shops.(Table 14)

From the data in this table, 75% of people who live in Stockholm site feel safe in their residential area and this number in Tehran site is just 15.5%.

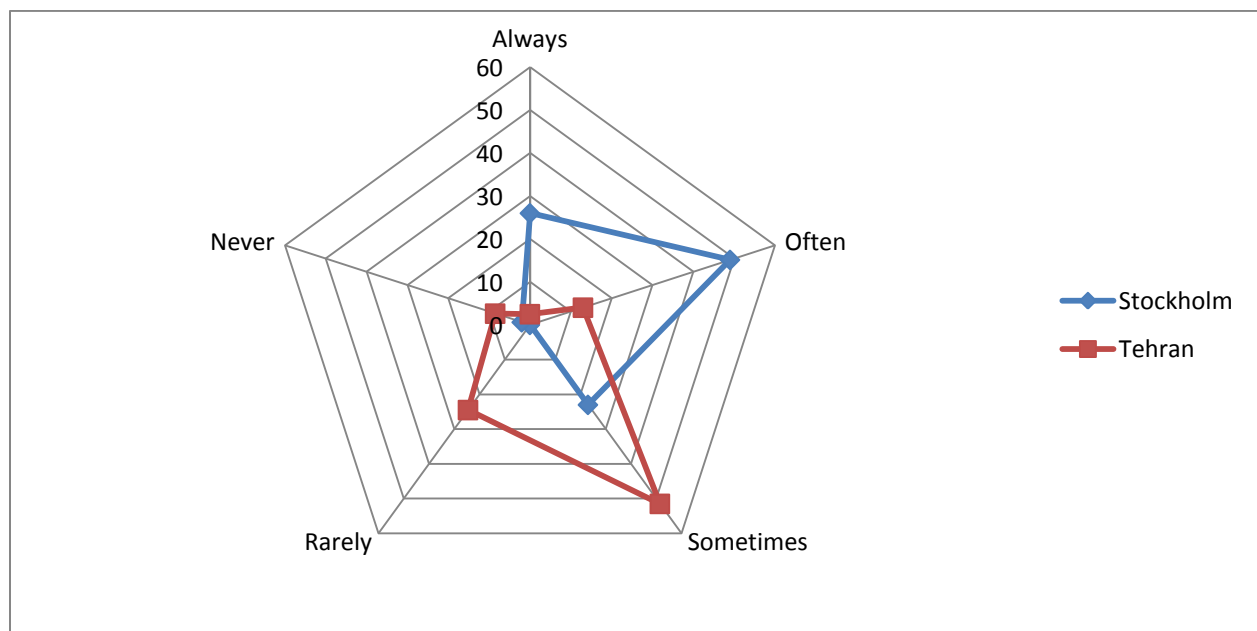


Figure 70: Radar chart of feeling secure in residential areas without shops in two cities

1.7. I feel secure where windows are facing the walk side.(Table 15)

This chart demonstrates compare to 86% of Swedish respondents just 23.5% of Iranian respondents are feeling safety in walk side with facing windows.

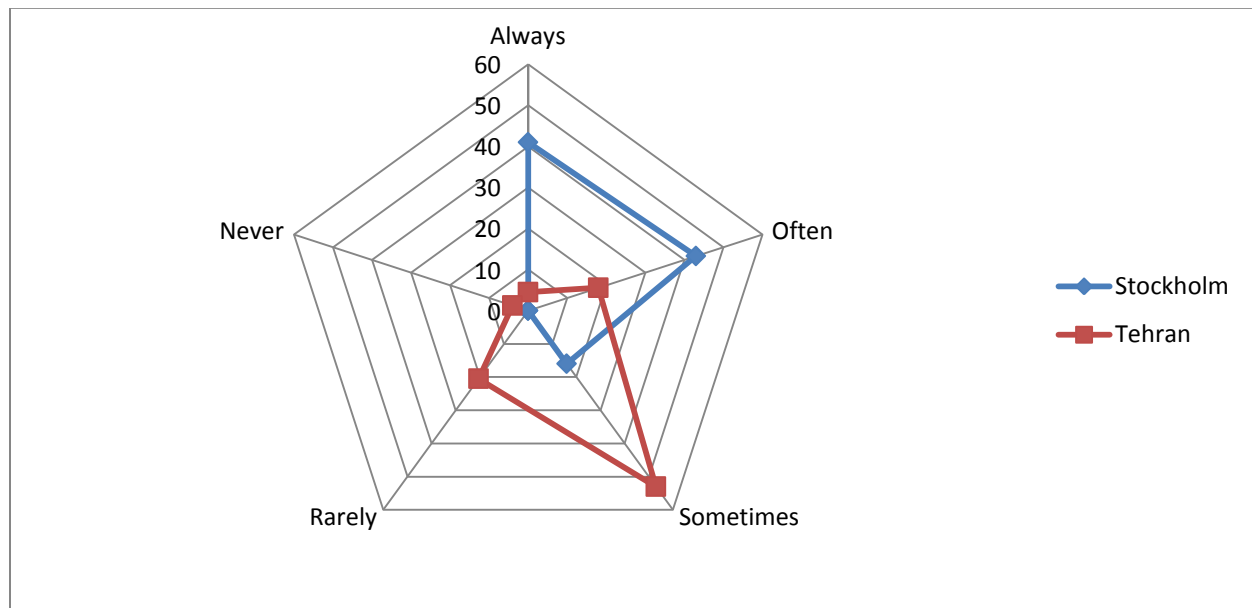


Figure 71: Radar chart of feeling secure where windows are facing the walk side in two cities

1.8. I feel secure in crowded and busy pedestrian walks with shops.(Table 16)

Table 16 shows 81% in Stockholm and 25.5% in Tehran feeling safe in pedestrian walks with shops. In comparison with Table 14, in walk side without shops feeling safety was 75% in Stockholm and 15.5% in Tehran.

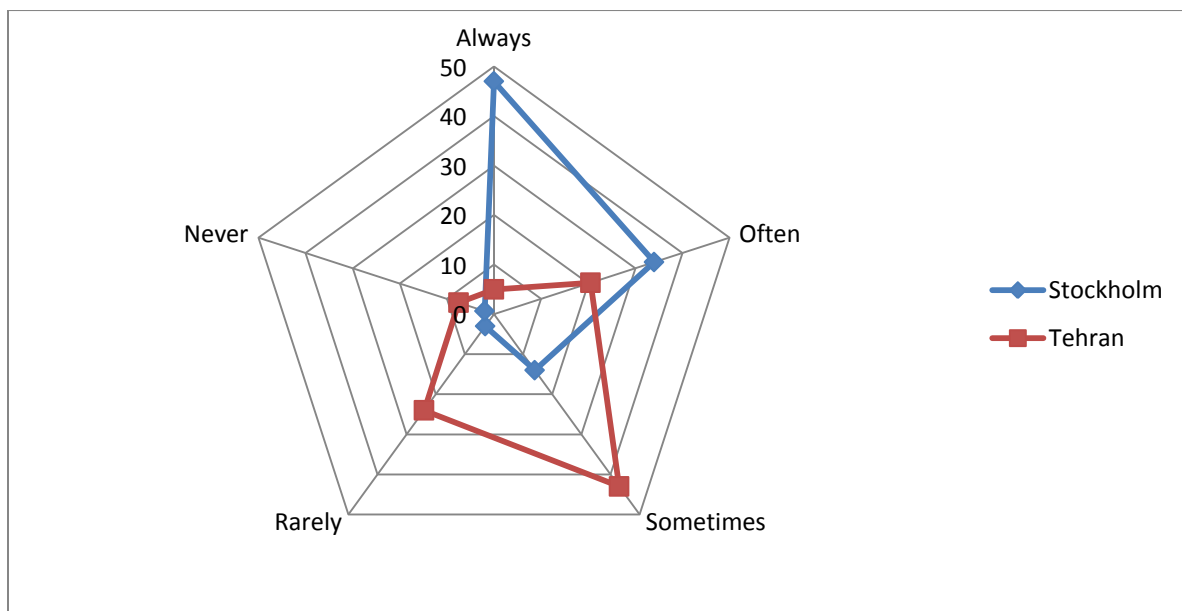


Figure 72: Radar chart of Feeling secure in crowded and busy pedestrian walks with shops in two cities

1.9. I feel secure passing zebra crossing.(Table 17)

Data from Table 17 shows 86% of participants in Stockholm feeling safe when they passing zebra crossing but in Tehran is just 23%.

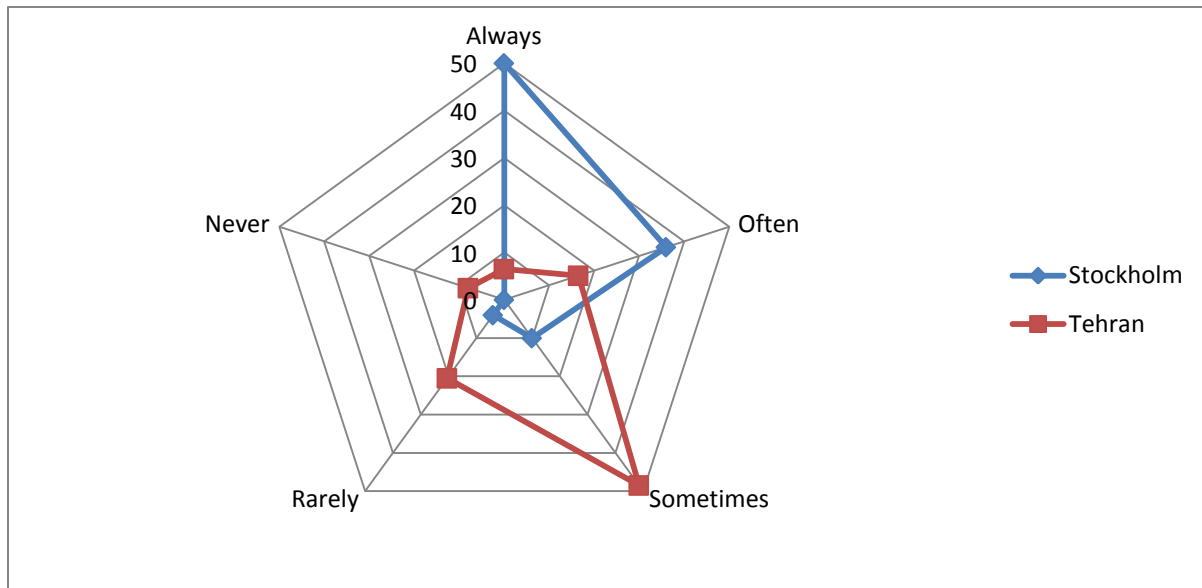


Figure 73: Radar chart of feeling secure passing zebra crossing in two cities

1.10. I feel insecure passing streets with bushes and tall trees.(Table 18)

Highlighting significant data in a Table 18 illustrates 38% of people who Swedish respondents and 28% of Iranian respondents had a negative answer to this question. This question was told in a negative form.

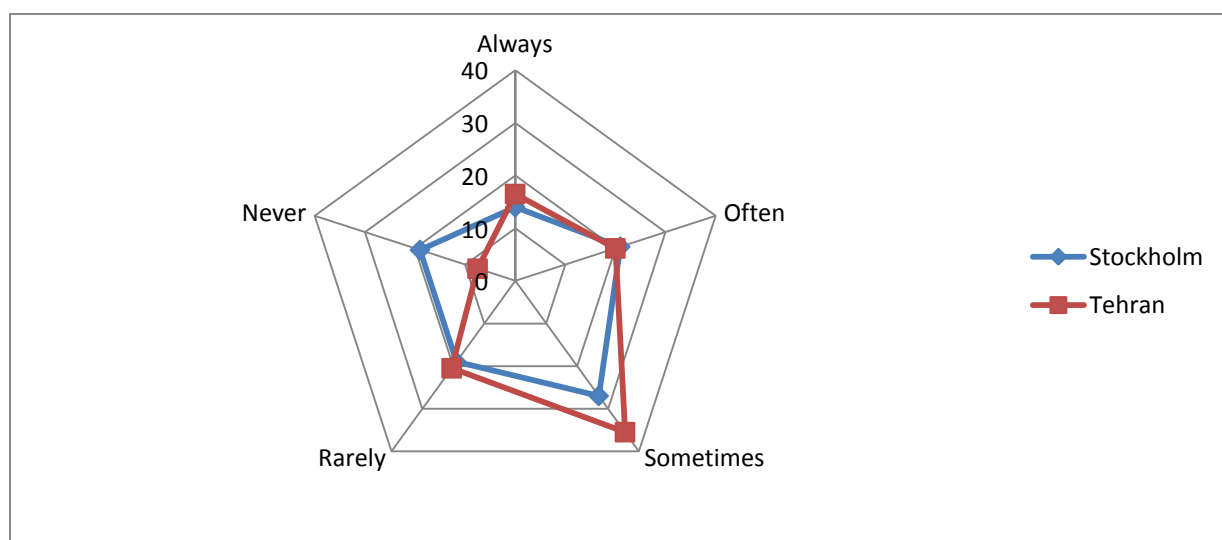


Figure 74: Radar chart of feeling insecure passing streets with bushes and tall trees in two cities

1.11. The light of the street where I live is good enough.(Table 19)

From the data in this table, it is clear 74% of Stockholm participants were agree that lighting in their neighborhood is good enough but this number in Tehran was 21.5%

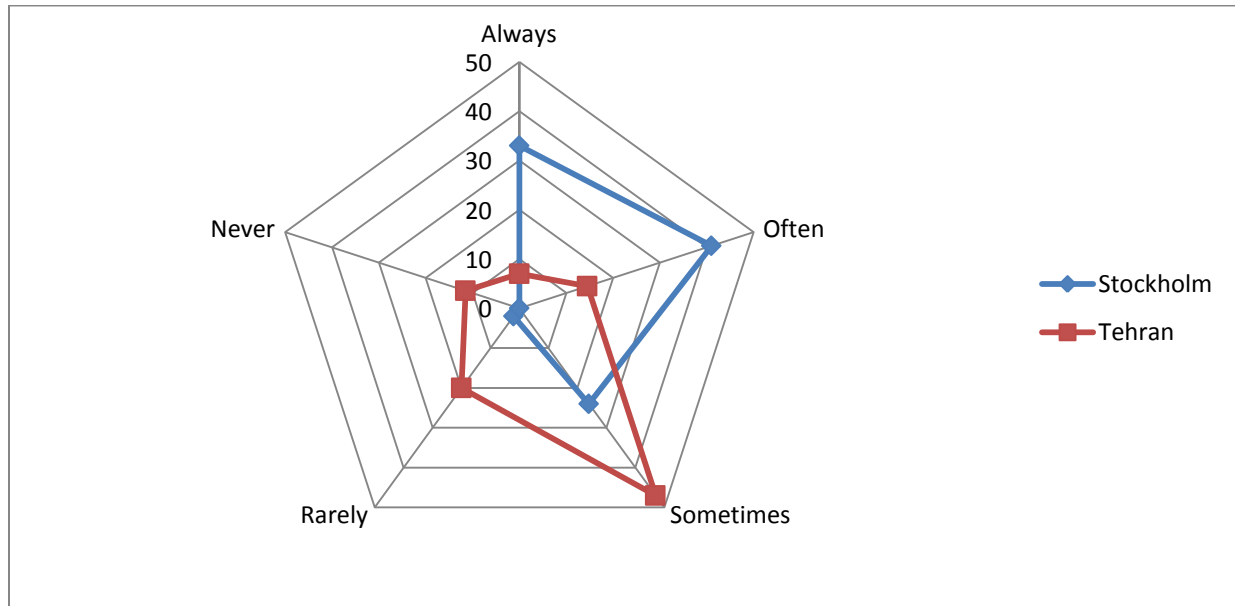


Figure 75: Radar chart of lighting of the street where I live is good enough in two cities

1.12. I feel secure in darkness.(Table 20)

47% of participants in Stockholm said that they feel secure in darkness and 17.5% in Tehran. It doesn't mean people in Stockholm are braver than Tehran but this difference maybe comes from their experiences.

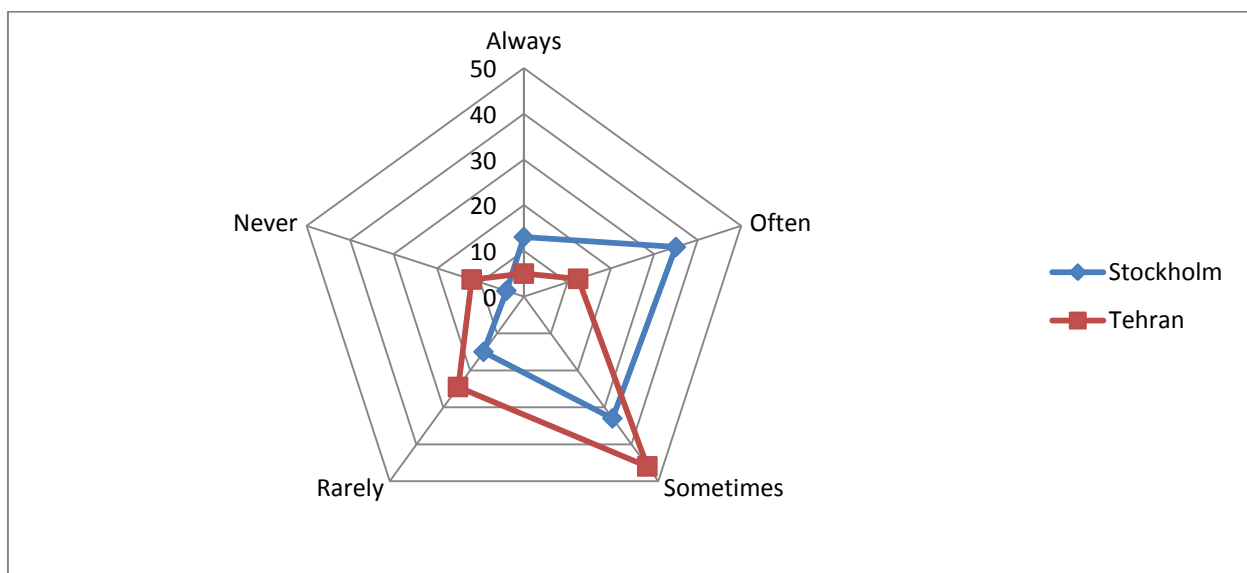


Figure 76: Radar chart of feeling secure in darkness in two cities

1.13. I feel rather secure on days than nights.(Table 21)

From the data in this table, it is clear 69% of Stockholm participants was agree that their feeling of safety in daylight are more than night and this number in Tehran was 44%.

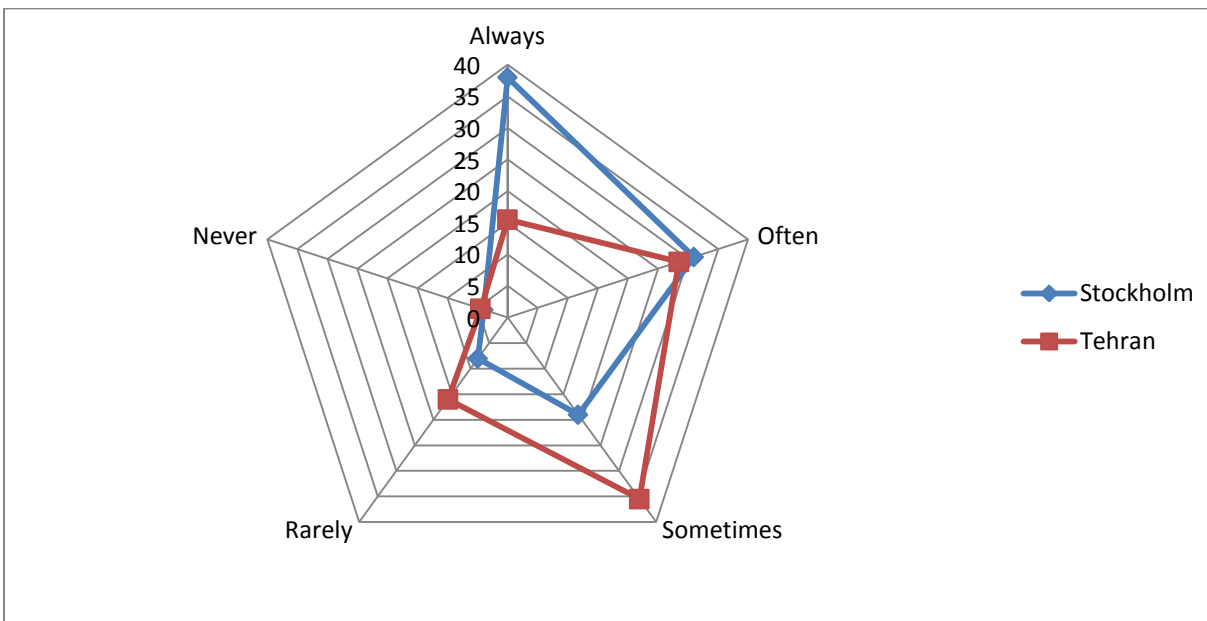


Figure 77: Radar chart of feeling secure on days rather than nights in two cities

1.14. I feel insecure in dead-end allies.(Table 22)

47% of Stockholm participants are feeling insecure in dead-end allies and 32.5% of Tehran's participants.

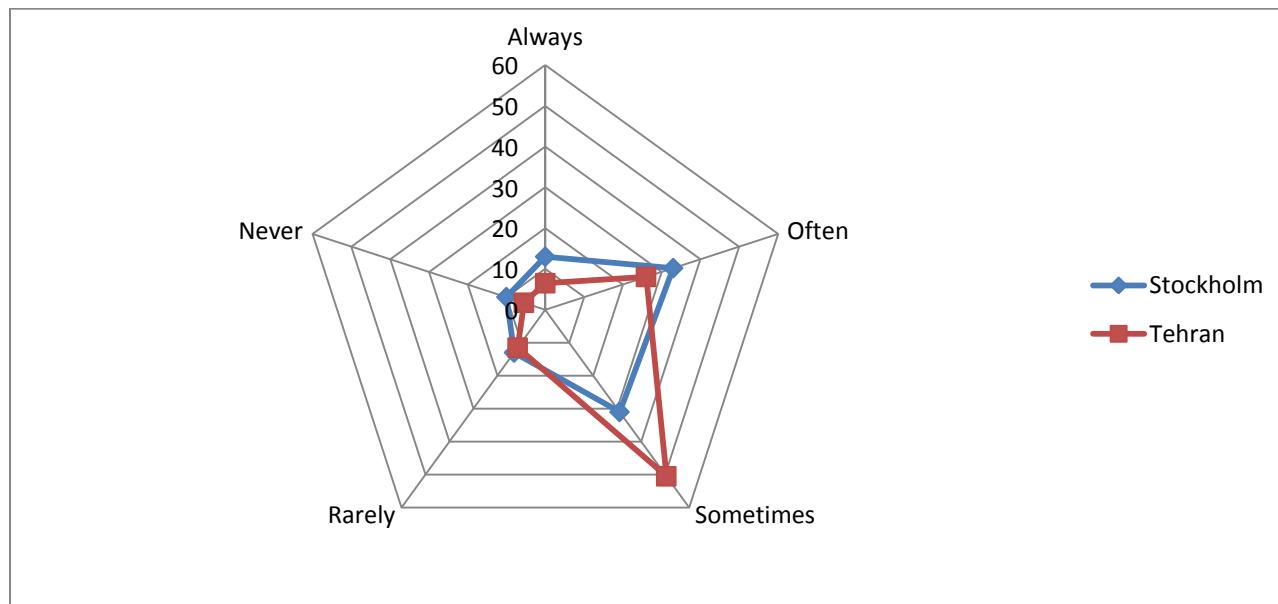


Figure 78: Radar chart of feeling insecure in dead-end allies in two cities

1.15. I feel secure waiting for bus or a friend.(Table 23)

90% of participants in Stockholm said when they feel safe when they are waiting in bus stop or friend in the street while in Tehran is just 25% of respondents feel safe in the same situation.

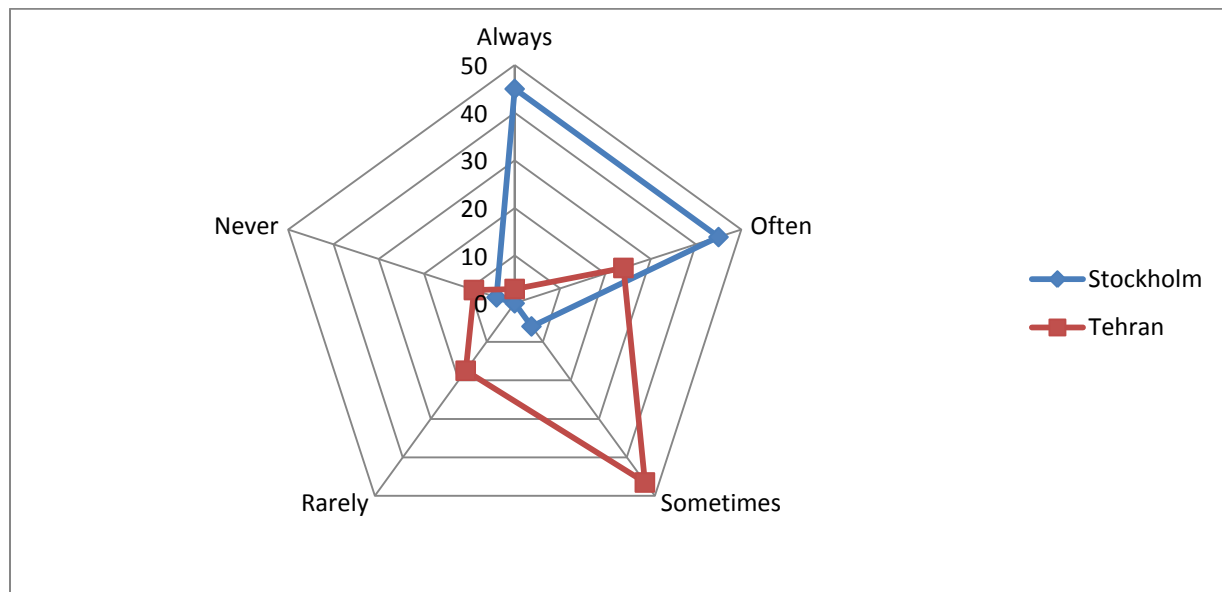


Figure 79: Radar chart of feeling secure waiting for bus or a friend in two cities

1.16. I know my neighborhood.(Table 24)

Table 24 shows that 67% of participants in Stockholm know their neighborhoods but this amount in Tehran is 33%.

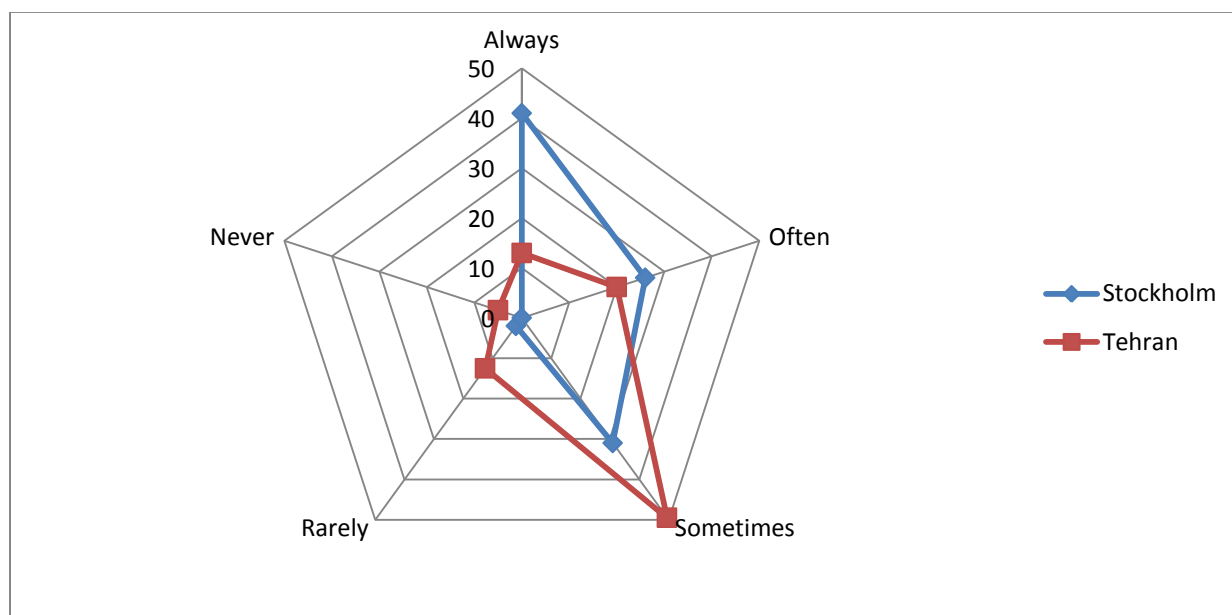


Figure 80: Radar chart of knowing neighborhood in two cities

1.17. I know my neighbors.(Table 25)

What is interesting in this data is that only 17% of participants in Stockholm know their neighbors but this amount in Tehran is 31%.

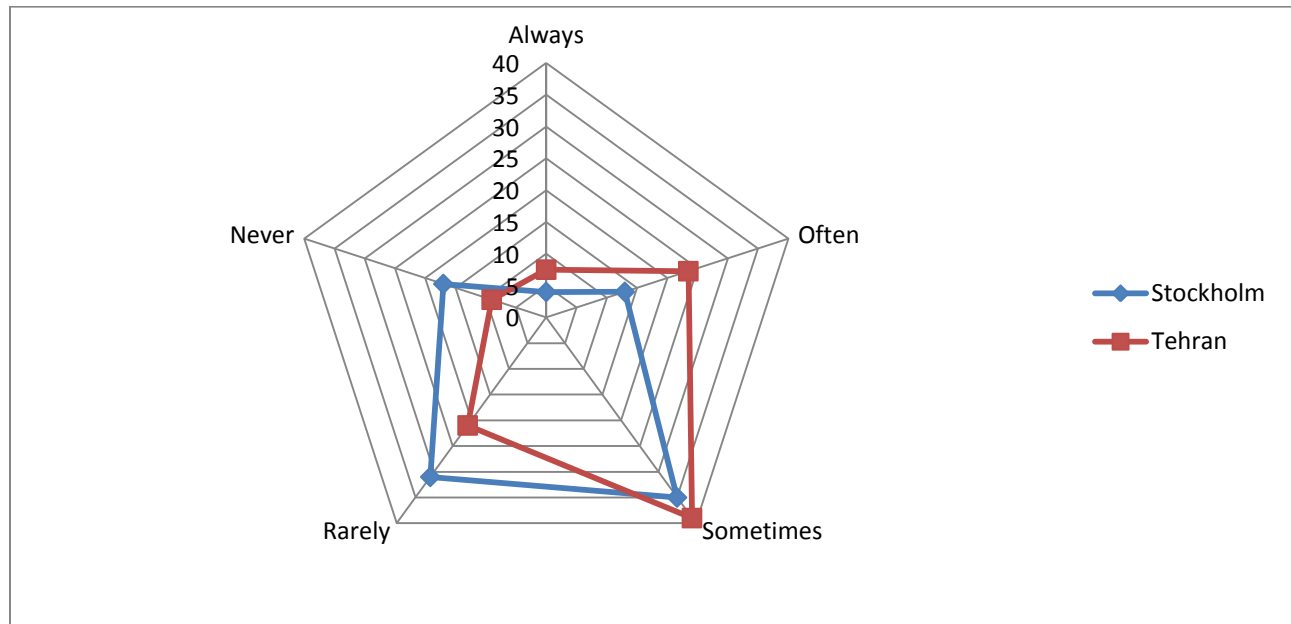


Figure 81: Radar chart of knowing neighbors in two cities

1.18. I use public transportation.(Table 26)

75% of Stockholm's participants said they using public transportation and 11% are not using public transportation. 35% of Tehran participants said they using public transportation and 25.5% are not using that.

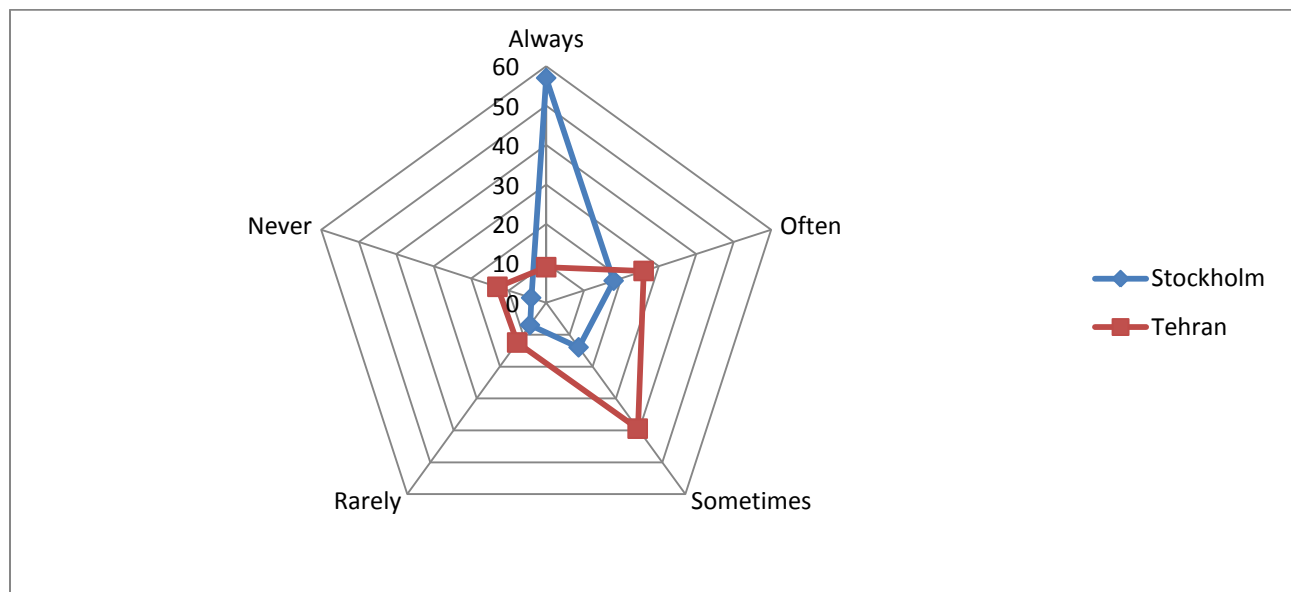


Figure 82: Radar chart of using public transportation in two cities

Table 27: Physical environment safety indicators overview

Questions 1 to 18	Stockholm (Mean)	Tehran (Mean)
Table 9 I feel secure where I live.	4.25	2.63
Table 10 I feel secure on the main street.	4.33	2.79
Table 11 I feel secure on local parks.	3.91	2.64
Table 12 I feel secure passing deserted (not crowded) places.	3.56	2.34
Table 13 I feel secure passing construction sites.	3.73	2.29
Table 14 I feel secure in residential areas without shops.	3.97	2.77
Table 15 I feel secure where windows are facing the walk side.	4.25	2.99
Table 16 I feel secure in crowded and busy pedestrian walks with shops.	4.21	2.92
Table 17 I feel secure passing zebra crossing.	4.32	2.93
Table 18 I feel insecure passing streets with bushes and tall trees.	2.92	3.18
Table 19 The light of the street where I live is good enough.	4.05	2.86
Table 20 I feel secure in darkness.	3.38	2.74
Table 21 I feel rather secure on days than nights.	3.91	3.35
Table 22 I feel insecure in dead-end allies.	3.26	3.17
Table 23 I feel secure waiting for bus or a friend.	4.27	2.95
Table 24 I know my neighborhood.	4.06	3.24
Table 25 I know my neighbors.	2.56	3
Table 26 I use public transportation.	4.17	3.06

Statistical hypothesis tests confirmed and showed except the two items (Feeling insecure passing streets with bushes and tall trees, and knowing neighbors) Stockholm inhabitants were feeling safer rather than people who lived in Tehran. It has to be said though in question No.10 results in Stockholm was lower than Tehran, as in this questions negative form of the word was used (insecure) the result showed people in Stockholm feel safer. So in this case, all indices except no.17 (knowing neighbors) demonstrate the feeling of safety was significantly different between the people who lived in Stockholm and Tehran. The level of safety sense among Stockholm inhabitants are more than the level of sense of security among the residents of Tehran.

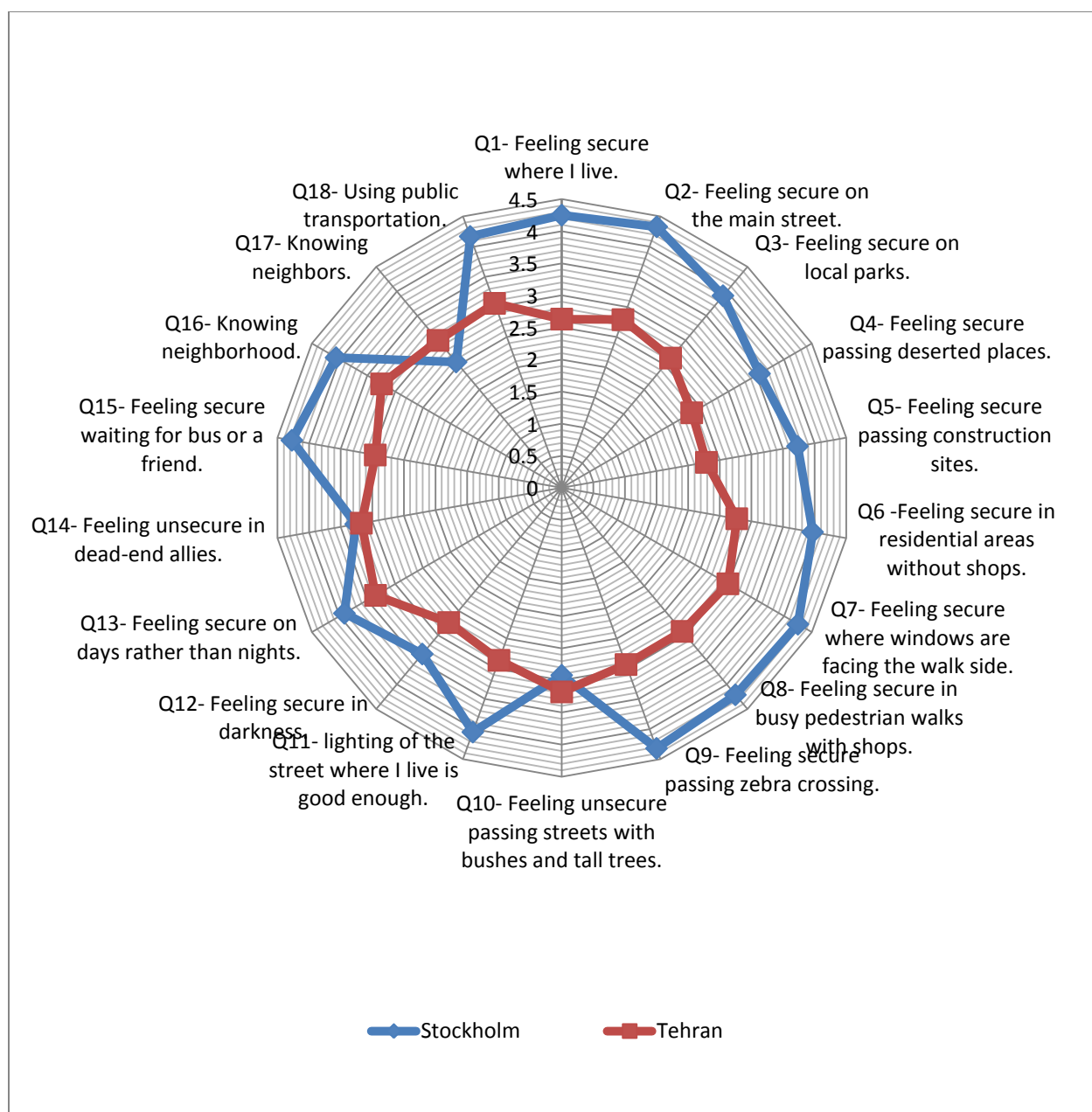


Figure 83: Frequency distribution of mean total in Physical environment safety indicators both cities

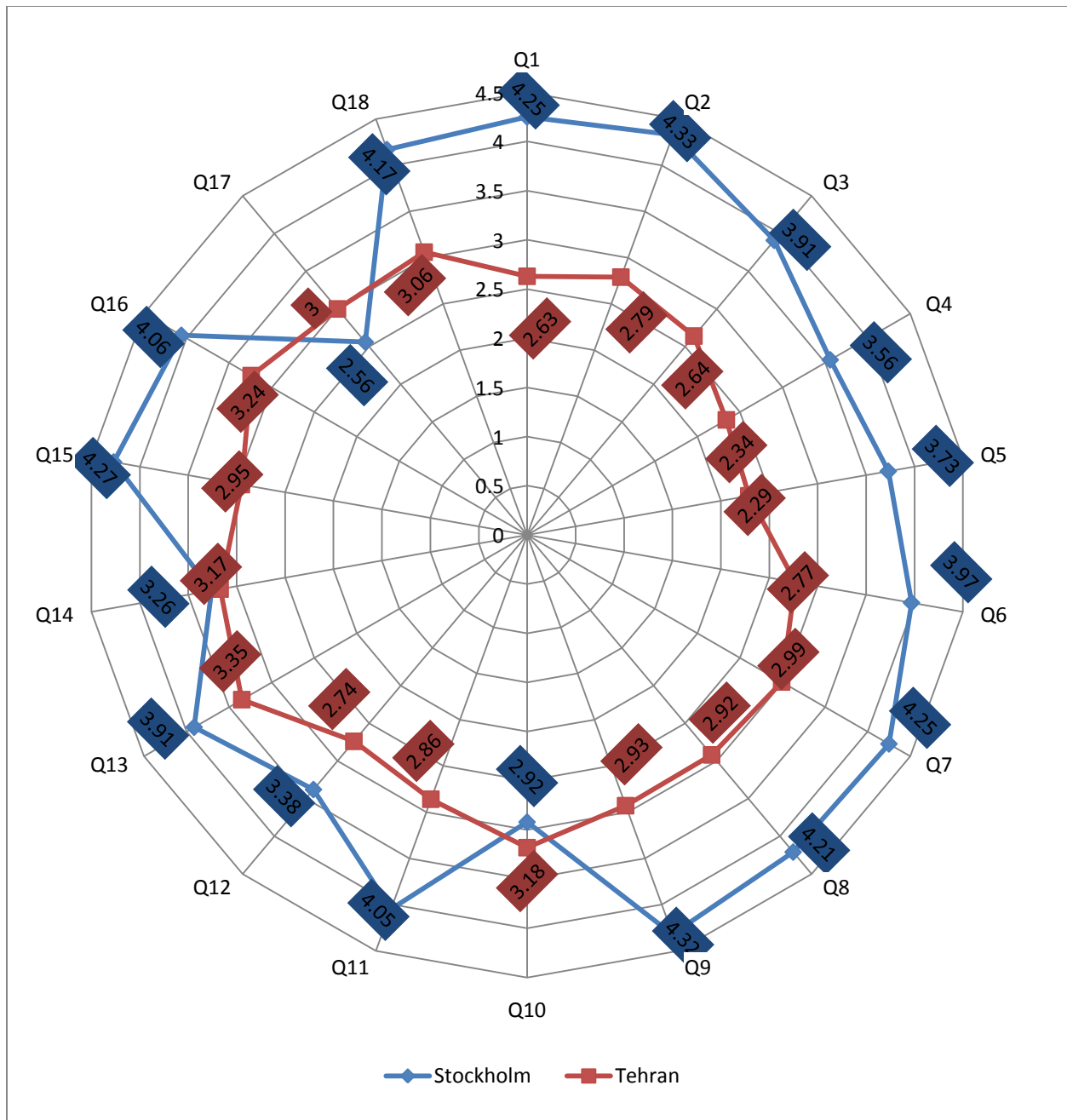


Figure 84: Frequency distribution of mean total in both cities

Comparison of safety-feeling indicators between cities:

In order to compare **the safety feeling** between cities, **Mann–Whitney U test** was used to **compare safety-feeling indicators between two cities**. (Table 54)

The result of Mann–Whitney U test confirmed that except the two items (Feeling insecure passing streets with bushes and tall trees, and feeling insecure in dead-end allies.) there is no significant

difference in other 16 items of feeling safe between cities. In all other 16 items Stockholm habitants were feeling more safe rather than people who lived in Tehran.

In this part I will discuss about some factors (Marital status, gender, employment status, and birth background, housing status, educational level and also age groups) and their relations among them about feeling safety in my research sites (Stockholm and Tehran).

Hypothesis 1: There is a significant difference in feeling safety between Tehran and Stockholm.

Independent t-test was used to comparison average of feeling-safe between two cities. (Table 46) Test confirmed that there is significant difference in feeling safe between these two groups' means in comparison with the test results, confirmed that there is significant difference in feeling safe between people who lived in these two cities. ($t = 16.286$, $P < 0.05$).

So that the level of safety sense among Stockholm inhabitants (mean 67.33) are more than the level of sense of security among the residents of Tehran (mean 51.90). (Ranges are between 18 to 90)

Hypothesis 2: There is a significant difference in feeling safety between single and married.

To evaluate significant difference in feeling safe between single and married, Independent t-test was used to compare feeling safety related to marital status between two cities. (Table 47)

Stockholm: The result of mean comparison test between single and married, confirmed that there is no significant difference in feeling safe between these two groups ($t = 1.291$, $P > 0.05$).

The married group felt safe more than single while the differences between the two groups in the average sense of security is not statistically significant.

Tehran: The result of mean comparison test between single and married, confirmed that there is no significant difference in feeling safe between these two groups ($t = 1.504$, $P > 0.05$).

However, the single group felt safe more than Married while the differences between the two groups in the average sense of security is not statistically significant.

As I mentioned before feeling safety in Stockholm is more than Tehran also we can see this feeling among single people in Stockholm is more than Tehran ($68.03 > 52.77$) also between married people ($65.97 > 51.08$). (Ranges are between 18 to 90)

Hypothesis 3: There is a difference in feeling safety between men and women.

In order to the feeling safety between men and women, Independent t-test was used to Compare feeling safety related to Sex between two cities. . (Table 48)

Stockholm: The result of mean comparison test between women and men, confirmed that there is no significant difference in feeling safe between these two groups ($t = -1.034$, $P > 0.05$).

Tehran: The result of mean comparison test between women and men, confirmed that there is no significant difference in feeling safe between these two groups ($t = 0.842$, $P > 0.05$).

Also that the level of safety among women who living in **Stockholm** (mean 66.64) are more than the level of this sense in **Tehran**'s women (mean 52.26). (Ranges are between 18 to 90).

The level of safety among men who living in **Stockholm** (mean 68.23) are more than the level of this sense in **Tehran**'s men (mean 51.31). (Ranges are between 18 to 90)

Hypothesis 4: There is a difference in feeling safety between employed and unemployed.

In order to the feeling safety between employed and unemployed people, independent t-test was used to Compare feeling safety and Employment status between two cities. (Table 49)

Stockholm: The result of mean comparison test between employed and unemployed, confirmed that there is significant difference in feeling safe between these two groups ($t = -2.070$, $P > 0.05$).

So that unemployed (mean=69.38) felt rather safe comparing to employed people. (Mean=66.17)

Result shows (Table 84) In Stockholm 66% of our participants were employed and 34% were unemployed.

Tehran: The result of mean comparison test between employed and unemployed, confirmed that there is no significant difference in feeling safe between these two groups ($t = -1.127$, $P > 0.05$).

Table 84 shows In Tehran 59% of our participants were employed and 41% were unemployed.

Hypothesis 5: There is a difference in feeling safety between native and nonnative inhabitant.

In order to the feeling of safety between native and nonnative, independent t-test was used to Compare feeling safety related to local or expatriates between two cities.(Table 50)

Stockholm: The result of mean comparison test between native and non native, confirmed that there is significant difference in feeling safe between these two groups ($t = 1.952$, $P > 0.05$).

So that native people felt rather safe comparing with others but this difference in mean is not significant.

Background (Born Place – Father - Mother) - Stockholm

Results (Table 80) show that in Stockholm 59% of them were born in Stockholm and 21% were born somewhere else and 20% didn't answer this question.

Results (Table 81) show that In Stockholm 57% of their fathers were born in Stockholm and 23% were born somewhere else and 20% didn't answer this question.

Result (Table 82) shows In Stockholm 45% of their mothers were born in Stockholm and 28% were born somewhere else and 20% didn't answer this question.

Tehran: The result of mean comparison test between native and non native, confirmed that there is no significant difference in feeling safe between these two groups ($t = -1.541$, $P > 0.05$).

So that native people felt rather safe in comparison with the others but this difference in mean is not statically significant.

Background (Born Place – Father - Mother) - Tehran

Table 80 shows In Tehran 51% were born in Tehran and 37% were born out of Tehran and 12% didn't answer this question.

Table 81 shows In Tehran 30.5% of our participant's fathers were born in Tehran and 51% were born out of Tehran and 18.5% didn't answer this question.

Table 82 shows In Tehran 32% of our participant's mothers were born in Tehran and 43% were born out of Tehran and 25% didn't answer this question.

Hypothesis 6: There is a difference in feeling safety between owners and Tenants.

In order to the feeling of safety of owners and Tenants, independent t-test was used to Compare feeling safety related to status of Place of residence between two cities.(Table 51)

Stockholm: The result of mean comparison test between place of residence status, confirmed that there is significant difference in safety feeling between these two groups ($t = -0.562$, $P > 0.05$).

Result (Table 85) shows In Stockholm 69% were living in rentals and 31% owned their place.

Tehran: The result of mean comparison test between place of residence status, confirmed that there is no significant difference in feeling safe between these two groups ($t = -1.935$, $P > 0.05$).

Table 85 shows In Tehran 49.5% were living in rentals and 50.5% owned their living place.

Hypothesis 7: There is a difference in feeling safety between educational levels.

In order to the safety feeling between educational levels, One-way ANOVA test was used to Compare feeling safety related to educational level between two cities.(Table 52)

Stockholm: The result of ANOVA test, confirmed that there is no significant difference in feeling safe between different educational levels ($F = 2.318$, $P > 0.05$).

Respondents with diploma degree (mean 65) had the lowest rate and responder with bachelor degree (mean 69.72) had the highest rate of feeling safety, this difference were not statistically significant.

Table 83 shows In Stockholm the distribution by level of education is 10% High school diploma, 22% bachelor, 52% Master and 16% PhDs.

Tehran: The result of ANOVA test, confirmed that there is no significant difference in feeling safe between different educational levels ($F = 0.084$, $P > 0.05$).

Respondents with master degree (mean 51.53) had the lowest rate and responders with PhD degree (mean 54.33) had the highest rate of feeling safety, this difference were not statistically significant.

Table 83 shows In Tehran the distribution by level of education is 22% under High school Diploma, 44.5 diplomas, 35.5% bachelor, 7.5% master and 1.5 PhDs.

Hypothesis 8: There is a difference in feeling safety between age groups.

In order to the feeling safety between age groups, One-way ANOVA test was used to compare feeling safety related to age groups between two cities. (Table 53)

Stockholm: The result of ANOVA test, confirmed that there is significant difference in feeling safe between different age groups ($F = 7.289$, $P < 0.05$).

Respondents with age over than 35 (mean 65.09) had the lowest rate and responder with age of less than 25 (mean 74.63) had the highest rate of feeling safety.

Table 76 shows the distribution of age in Stockholm 69% were under 35 years and 31% were above 35 years. Also the age range of participation was between 20-60 years.

Tehran: The result of ANOVA test, confirmed that there is significant difference in feeling safe between different age groups ($F = 4.029$, $P < 0.05$).

Respondents with age between 25to35 (mean 50.87) had the lowest rate and with age of less than 25 (mean 54.37) had the highest rate of feeling safety.

Table 76 shows the distribution of age in Tehran 65% were under 35 years and 35% were above 35 years. Also the age range of participation was 14-75 years.

In whole research, our data shows (Table 76) 66% of participants were under 34years and 31% over 35years.

Next I will investigate the answers from question 2,3,4,5 (Appendix 11) in relation to gender. I will find if there are differences between men and women and their answers related to these questions.

(Question 2)

What kind of crime have had happened the most in your neighborhood during last 6 months.

Accident ☐ Rubbery ☐ Drug Dealing ☐ Street fights ☐ Murder ☐ none ☐

Hypothesis 9: There is a relation between type of crime and gender.

In order to investigate the relationship between type of crime and gender in two cities, chi-squared test was used. (Table 56)

Stockholm: Result of Chi-Square test (chi-square=7.950) confirmed that there is significant relation ($P=0.047$) between crime and gender. Result shows that there is significant difference in type of Crime and gender. Also correlation (Cramer $V=0.282$) shows there is weak relationship between type of crime and gender. Most of the responders (men and women) have stated that there was robbery in the area.

Table 87 shows the majority of respondents (67%) have stated that there was no crime in their neighborhood and other crimes mentioned as 21% Robbery, 6% Drug Abuse, 6% street fights.

Tehran: Result of Chi-Square test (chi-square=3.015) confirmed that there is no significant relation ($P=0.698$) between crime and gender. Most of the responders (men and women) have stated that there was robbery in the area.

The results shows (Table 87) that over a third of respondents (33.5%) have expressed that there was a theft in the area and other crimes distribution is 13.5% Accident, 19% Drug Abuse, 16% street fights and 1.5% murder.

All: Result of Chi-Square test (chi-square=3.327) confirmed that there is no significant relation ($P=0.650$) between crime and gender.

(Question 3) When do you feel more scared? Holding cash ☐ Parking your car in street ☐ Walking alone ☐

Hypothesis 10: There is a relation between feeling fear situation and gender.

In order to investigate the relationship between feeling fear situation and gender in two cities, chi-squared test was used. (Table 57)

Stockholm: Result of Chi-Square test (chi-square=1.197) confirmed that there is no significant relation ($P=0.550$) between feeling of fear situation and gender.

The results show (Table 88 & Table 57) that more than half of respondents (55 percent) felt more fear when they are holding cash.

Tehran: Result of Chi-Square test (chi-square=2.302) confirmed that there was no significant relation ($P=0.698$) between feeling of fear situation and gender.

The findings indicated that 42 percent for holding cash, 38 percent for parking their cars on the street and 19% if they walk alone felt fear. (Table 88 & Table 57)

All: Result of Chi-Square test (chi-square=2.855) confirmed that there was no significant relation ($P=0.240$) between feeling fear situation and gender.

(Question 4) Who do you thing is getting more scared? Men ☐ Women ☐

Hypothesis 11: There is a relation between feeling Scared and gender.

In order to investigate the relationship between feeling scared and gender in two cities, chi-squared test was used. (Table 58)

Stockholm: Result of Chi-Square test (chi-square=1.247) confirmed that there is no significant relation ($P=0.264$) between feeling scared and gender.

The results show (Table 89 & Table 58) that the majority of respondents (89% of people = 86% women & 93% of men) have stated that women more than men were afraid of crime.

Tehran: Result of Chi-Square test (chi-square=1.636) confirmed that there is no significant relation ($P=0.201$) between feeling scared and gender.

The results demonstrate (Table 89 & Table 58) that the majority of the respondents (92% of people = 93.5% women & 88.3% of men) have stated that women more than men were afraid of crime.

All: Result of Chi-Square test (chi-square=0.105) confirmed that there is no significant relation ($P=0.746$) between fear of crime situation and gender.

(Question 5) Who do you think is more possible to be subject to crime? Men ☐ Women ☐

Hypothesis 12: There is a relation between being subject of crime and gender.

In order to investigate the relationship between being **subject of a crime** and **gender** in both cities, **chi-squared test** was used. (Table 59)

Stockholm: Result of Chi-Square test (chi-square=0.537) confirmed that there is no significant relation ($P=0.464$) between Subject of crime and gender.

The results show (Table 90 & Table 59) that the majority of respondents (61% of people = 57.9% women & 65.1% of men) have stated that more women than men were subject to a crime.

Tehran: Result of Chi-Square test (chi-square=0.876) confirmed that there is no significant relation ($P=0.349$) between Subject of crime and gender.

The results show (Table 90 & Table 59) that the majority of respondents (77% of people = 74.8% women & 80.5% of men) have stated that more women than men were subject to crime.

All: Result of Chi-Square test (chi-square=1.094) confirmed that there is no significant relation ($P=0.296$) between Subject of crime and gender.

As well I will investigate relations between safety of physical environment and fear of crime, experience of crime, rate of crime. (Question 1 and 6, 7, 9) (Appendix 11)

(Questions 1-1 to 1-18 and Question 6)

Hypothesis 13: There is a relation between safety of physical environment and fear of crime.

In order to investigate the relationship between **safety of physical environment** and **fear of crime** in two cities, **Pearson product-moment correlation coefficient** was used. (Table 60)

Stockholm: Result of Pearson confirmed that there is no significant relation between physical environment and fear of crime. ($r = -0.098$)

Tehran: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between the safety of physical environment and levels of fear of crime.

Also considering the correlation coefficient ($r = -0.149$), we can say the safety of physical environment and the fear of crime has an inverse and significant relationship with weak intensity. In other words, increased the safety of physical environment will reduced levels of fear of crime (these two variables have opposite directions).

All: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between the safety of physical environment and levels of fear of crime.

Also considering the correlation coefficient ($r = -0.118$), we can say the safety of physical environment and the fear of crime has an inverse and significant relationship with low intensity. In other words, increased the safety of physical environment will reduce levels of fear of crime (these two variables have opposite directions).

(Questions 1-1 to 1-18 and Question 7)

Hypothesis 14: There is a relation between safety of physical environment and crime experience

In order to investigate the relationship between **safety of physical environment** and **crime experience** in both cities, **Pearson product-moment correlation coefficient** was used. (Table 61)

Stockholm: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between the safety of physical environment and experience of crime.

Also considering the correlation coefficient ($r = - 0.490$), we can say the safety of physical environment and experience of crime has an inverse and significant relationship with average intensity.

In other words, increase in the safety of physical environment will reduce perception of crime. (These two variables have opposite directions).

Tehran: Results of Pearson's correlation coefficient confirmed that there is a no significant correlation between the safety of physical environment and experience of crime. ($r = - 0.440$)

All: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between the safety of physical environment and experience of crime.

Also considering the correlation coefficient ($r = - 0.362$), we can say the safety of physical environment and experience of crime has an inverse and significant relationship with average intensity.

In other words, increasing the safety of physical environment will reduce experience of crime. (These two variables have opposite directions).

(Questions 1-1 to 1-18 and Question 9)

Hypothesis 15: There is a relation between safety of physical environment and rate of crime.

In order to investigate the relationship between **safety of physical environment** and **rate of crime** in the two cities, **Pearson product-moment correlation coefficient** was used. (Table 62)

Stockholm: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between the safety of physical environment and rate of crime.

Also considering the correlation coefficient ($r = - 0.318$), we can say the safety of physical environment and rate of crime has an inverse and significant relationship with average intensity.

In other words, increasing the safety of physical environment will reduce the rate of crime. (These two variables have opposite directions).

Tehran: Results of Pearson's correlation coefficient confirmed that there is a no significant correlation between the safety of physical environment and rate of crime. ($r = - 0.053$)

All: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between the safety of physical environment and rate of crime.

Also considering the correlation coefficient ($r = - 0.258$), we can say the safety of physical environment and rate of crime has an inverse and significant relationship with weak intensity.

In other words, increased the safety of physical environment will reduced rate of crime (These two variables have opposite directions).

Furthermore I will investigate relations between fear of crime and experience of crime also fear of crime and rate of crime. (Question 6 and 7, 9) (Appendix 11)

(Question 6 and Question7)

Hypothesis 16: There is a relation between fear of crime and experience of crime.

In order to investigate the relationship between **fear of crime** and **experience of crime** in two cities, **Pearson product-moment correlation coefficient** was used. (Table 63)

Stockholm: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between fear of crime and experience of crime.

Also considering the correlation coefficient ($r = 0.254$), we can say fear of crime and experience of crime has a direct and significant relationship with weak intensity. In other words, increasing fear of crime will increase crime experience. (These two variables have same directions).

Tehran: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between fear of crime and experience of crime.

Also considering the correlation coefficient ($r = 0.323$), we can say fear of crime and experience of crime has a direct and significant relationship with average intensity. In other words, increasing fear of crime will escalates crime experience. (These two variables have same directions).

All: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between fear of crime and experience of crime.

Also considering the correlation coefficient ($r = 0.366$), we can say fear of crime and experience of crime has a direct and significant relationship with average intensity. In other words, increasing fear of crime will escalates the crime experience. (These two variables have same directions).

(Question 6 and Question9)

Hypothesis 17: There is a relation between fear of crime and rate of crime.

In order to investigate the relationship between **fear of crime** and **rate of crime** in two cities, **Pearson product-moment correlation coefficient** was used. (Table 65)

Stockholm: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between fear of crime and rate of crime.

Also considering the correlation coefficient ($r = 0.287$), we can say fear of crime and rate of crime has a direct and significant relationship with weak intensity.

In other words, increasing rate of crime will increase the fear of crime. (These two variables have same directions).

Tehran: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between fear of crime and the rate of crime.

Also considering the correlation coefficient ($r = 0.347$), we can say fear of crime and rate of crime has a direct and significant relationship with average intensity.

In other words, increasing rate of crime will increase the fear of crime. (These two variables have same directions).

All: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between fear of crime and rate of crime.

Also considering the correlation coefficient ($r = 0.375$), we can say fear of crime and rate of crime has a direct and significant relationship with average intensity.

In other words, increasing rate of crime will increase the fear of crime. (These two variables have same directions).

Also a relation between experience of crime and rate of crime (question 7 and 9)

(Question 7 and Question9)

Hypothesis 18: There is a relation between experience of crime and rate of crime

In order to investigate the relationship between **experience of crime** and **rate of crime** in both cities, **Pearson product-moment correlation coefficient** was used. (Table 64)

Stockholm: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between experience of crime and rate of crime

Also considering the correlation coefficient ($r = 0.502$), we can say experience of crime and rate of crime has a direct and significant relationship with average intensity.

In other words, increasing experience of crime will increase the rate of crime. (These two variables have same directions).

Tehran: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between experience of crime and rate of crime

Also considering the correlation coefficient ($r = 0.544$), we can say experience of crime and rate of crime has a direct and significant relationship with average intensity.

In other words, increasing experience of crime will increase the rate of crime. (These two variables have same directions).

All: Results of Pearson's correlation coefficient confirmed that there is a significant correlation between experience of crime and the rate of crime

Also considering the correlation coefficient ($r = 0.588$), we can say experience of crime and rate of crime has a direct and significant relationship with average intensity.

In other words, increasing experience of crime will increase the rate of crime. (These two variables have same directions).

I will look into fear of crime and experience of crime and rate of crime factors (Question 6, 7, 9) (Appendix 11) in relation to gender. I will find if there are differences between men and women and their answers related to these questions.

(Question 6 and gender)

Hypothesis 19: There is a difference in fear of crime by gender.

In order to compare these two cities in **fear of crime** by **gender**, **independent t-test** was used. (Table 66)

Stockholm: The result of mean comparison test between fear of crime by gender, confirmed that there is no significant difference in feeling safe between these two groups ($t = 0.263$, $P > 0.05$). Women feel fear more than men while the differences between these two groups in the average sense of security are not statistically significant.

(Table 75) shows In Stockholm 57% of participants were female and other 43% are male.

Tehran: The result of mean comparison test between fear of crime in two cities by gender, confirmed that there is no significant difference in feeling safe between these two groups ($t = 1.040$, $P > 0.05$). Women feel fear more than men while the differences between the two groups in the average sense of security is not statistically significant.

Table 75 shows In Tehran 61.5% of participants was female and other 38.5% were male.

All: In whole research, our data (Table 75) shows 60% of participants were female and other 40% were male.

(Question7 and gender)

Hypothesis 20: There is a difference in crime experience by gender.

In order to **experience of crime** and **gender**, **independent t-test** was used to **compare result of those between two cities**. (Table 67)

Stockholm: The result of mean comparison test between crime experience by gender, confirmed that there is no significant difference in feeling safe between these two groups ($t = -1.219$, $P > 0.05$).

Men have experienced crime more and higher perceptions of crime rather than women while the differences between the two groups in the average sense of security is not statistically significant.

Table 75 shows In Stockholm 57% of participants were female and other 43% are male.

Tehran: The result of mean comparison test between crime experience by gender, confirmed that there is no significant difference in feeling safe between these two groups ($t = -1.759$, $P > 0.05$).

Men have experienced crime more and rather higher perceptions of crime in comparison with women while the differences between the two groups in the average sense of security is not statistically significant.

Table 75 shows In Tehran 61.5% of participants was female and other 38.5% were male.

(Question9 and gender)

Hypothesis 21: There is a difference in rate of crime by gender.

In order to compare these two cities in **rate of crime** by **gender**, **independent t-test** was used. (Table 68)

Stockholm: The result of mean comparison test between rate of crime by gender, confirmed that there is no significant difference in rate of crime between these two groups ($t = 0.546$, $P > 0.05$).

Table 75 shows In Stockholm 57% of participants were female and other 43% are male.

Tehran: The result of mean comparison test between rate of crime in by gender, confirmed that there is no significant difference in rate of crime between these two groups ($t = -1.192$, $P > 0.05$).

Table 75 shows In Tehran 61.5% of participants was female and other 38.5% were male.

I will look into fear of crime and experience of crime and rate of crime factors (Question 6, 7, 9) (Appendix 11) in relation to marital status. I will find if there are differences between single o married and their answers related to these questions.

(Question6 and marital status)

Hypothesis 22: There is a difference in fear of crime by marital status

In order to compare these two cities in level of **fear of crime by marital status**, **independent t-test** was used. (Table 69)

Stockholm: The result of mean comparison test between fear of crime by marital status, confirmed that there is no significant difference in feeling safe between these two groups ($t = 0.069$, $P > 0.05$).

Singles have more fear of crime comparing to married while the differences between two groups in the average sense of security are not statistically significant.

Results (Table 77) show In Stockholm 66% were single and other 31% were married.

Tehran: The result of mean comparison test between fear of crime by marital status, confirmed that there is no significant difference in feeling safe between these two groups ($t = -0.348$, $P > 0.05$).

Married have more fear of crime than singles while the differences between two groups in the average sense of security are not statistically significant.

Table 77 shows In Tehran 51% were married and 49% were single.

(Question7 and marital status)

Hypothesis 23: There is a difference in crime experience by marital status.

In order to compare these two cities in **crime experience by marital status, independent t-test** was used. (Table 70)

Stockholm: The result of mean comparison test between experience of crime by marital status, confirmed that there is no significant difference in feeling safe between these two groups ($t = -1.492$, $P > 0.05$).

Married participants have more experienced and had a higher perception of crime rather than Singles while the differences between two groups in the average sense of security are not statistically significant.

Results (Table 77) show In Stockholm 66% were single and other 31% were married.

Tehran: The result of mean comparison test between experience of crime by marital status, confirmed that there is no significant difference in feeling safe between these two groups ($t = -0.632$, $P > 0.05$).

Married participants have more experienced crime and had a higher perception of crime rather than Singles while the differences between two groups in the average sense of security are not statistically significant.

Table 77 shows In Tehran 51% were married and 49% were single.

(Question9 and marital status)

Hypothesis 24: There is a difference in rate of crime by marital status.

In order to compare these two cities in **rate of crime by marital status, independent t-test** was used. (Table 71)

Stockholm: The result of mean comparison test between rate of crime regarding the marital status, confirmed that there is no significant difference in feeling safe between these two groups ($t = -0.606$, $P > 0.05$).

Results (Table 77) show In Stockholm 66% were single and other 31% were married.

Tehran: The result of mean comparison test between rate of crime by marital status, confirmed that there is no significant difference in feeling safe between these two groups ($t = 0.217$, $P > 0.05$).

Table 77 shows In Tehran 51% were married and 49% were single.

And finally, I will inspect feeling safety between livings in their neighborhoods or somewhere that is notorious in media from crime rates. (Question 7.5)

(Question 7.5)

If I was living in **Tensta** instead of your neighbors, I would rather feel insecure.

Hypothesis 25: There is a difference in feeling safe between livings in their neighborhoods or somewhere that is notorious in media from rate of crime.

In order to compare the feeling of fear between living in their neighborhoods or somewhere that is notorious in media from rate of crime, Mann–Whitney’s U test was used to compare affect of media on point of view of people between two cities. (Table 55)

The result of Mann–Whitney’s U test confirmed that there is significant difference in feeling fear between two groups of responder. People who live in **Stockholm** have more feeling of fear from living in somewhere like (Tensta in Stockholm) rather than people who lived in **Tehran** (Rah-e-ahan). So People who live in Stockholm have more affective behavior from news and media about feeling of fear.

5.1. Methodology appropriateness:

As I mentioned, Present research is an observational analytic study. As observational study draws inferences about the possible effect of special factors on human subjects on “real world”, and provides part of the community-level data, it was a good method for this work. While questionnaire is an appropriate means of eliciting the feelings, experiences, perceptions, or attitudes of a sample of individuals, in my study it was the best way for data collection. Overall, the method of this study and the way of data gathering were proper to yield specific findings and to meet particular need for information of my research.

6. Conclusion:

According to the results of previous studies, some features of residential environment at the street block and neighborhood are relevant to increasing the feeling of safety and reducing crime rates and crime-related outcomes, such as fear of crime and neighborhood confidence. Therefore in this study to compare the feeling of safety and fear in two sample districts of two different cities, it has been tried to compare the feeling of safety in relation with some physical characteristics which have crime-preventive or fear-reducing effects. In this purpose different aspects of feeling safety in relation with eighteen environmental factors that function to allow inhabitants feel secure has been asked by questionnaire and measured in two sample districts of two cities of Stockholm and Tehran. The results have shown the safety feelings between Tehran and Stockholm are different. Statistical hypothesis tests confirmed and showed the feeling of safety was significantly different between the people who lived in Stockholm and Tehran. All indicators demonstrate Stockholm inhabitants were feeling more secure rather than people who lived in Tehran.

The assessment of the relation between some physical characteristics and the feeling of safety showed there are some similarity and some differences in these two communities. This can help the groups who would benefit from further investigations be identified. The outcomes of comparison of data showed feeling safety related to gender, marital status, employment status, birth background, housing status, and age groups in Stockholm and Tehran are following similar patterns. Unmarried people (single group) feel more safe compare to married group in both cities. Unemployed persons, native, House owners, and people less than 25 years old feel more secure as well.

Furthermore this study confirmed that there is no significant relationship between gender with feeling fear situation, scared feeling, being subject of a crime, fear of crime, and crime experience in both cities.

According to the results of this study, fear of crime, crime experience and rate of crime in a city may be influenced by factors in the built environment. In present study, a Pearson product-moment correlation coefficient was computed to assess the relationship between safety of physical environment with fear of crime, crime experience, and rate of crime. There was correlation between these variables. In other words the levels of physical environment safety at neighborhood have been found to be associated with the fear of crime, experience of crime and rate of crime.

This suggests that increasing the safety of physical environment may reduce the fear of crime, experience of crime and crime rate. Therefore, it may potentially be a way to improve the feeling of safety at a community level.

Overall, as the findings illustrate, in two communities which have various designs based upon Crime prevention through environmental design (CPTED) guideline, the inhabitants have different feeling of safety and fear. Sweden is an example of the countries which more match to the principles CPTED guidelines. This study in action shows in the communities like Iran, crime prevention may benefit from the strategies for protecting neighborhoods from crime through environmental design. Indeed some research and development programs and special projects should be sponsored by the government to focus on the physical environmental characteristics to improve the physical safety and reduce or prevent crimes. Furthermore much more attention should be given by city planners and urban designer in countries like Iran to the principle that fear can be “designed out” of built environment. Through design and management of the physical environment of buildings, residential neighborhoods, and business areas public based on CPTED safety will be increased and fear of crime will be reduced.

The evidences prove the effectiveness of specific environmental interventions in reducing some indicators of fear of crime. Therefore attention to the context and possible confounders is needed in future evaluations of complex environmental interventions.

7. Limitation of the study:

This research was a large project concluding several numbers of issues and variables to be discussed over. This topic was broad to be manageable and was a little uneasy about gathering the data and analyzing them. This study can be broken apart into smaller projects that could also be done in parallel if necessary. With narrowing down the topic idea, the focus of the research will be increased at special points.

8. Suggestion for the future studies:

It is recommended for future study the researcher to choose special aspect of the physical features of environment which affect the feeling of safety and fear. The smaller the area of analysis, the more narrow the focus Therefore, In other word one lens through which to view the research problem should be chosen. Furthermore it is recommended in future studies the unit of study be broken into smaller parts which can then be analyzed more precisely.

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10. Appendix:

10.1. Appendix 1: Verification of the validity indicators of physical environment safety

The models analyses (path diagram) represent the results of assess on physical environment safety indicators.

Table 3: Validity test in the case of Physical environment safety indicators

Indicator	Value
Chi-Square	176.96
df	135
Chi-Square/ df	1.31
RMSEA	0.055
GFI	0.98
AGFI	0.94
CFI	0.96
NFI	0.98
RMR	0.039

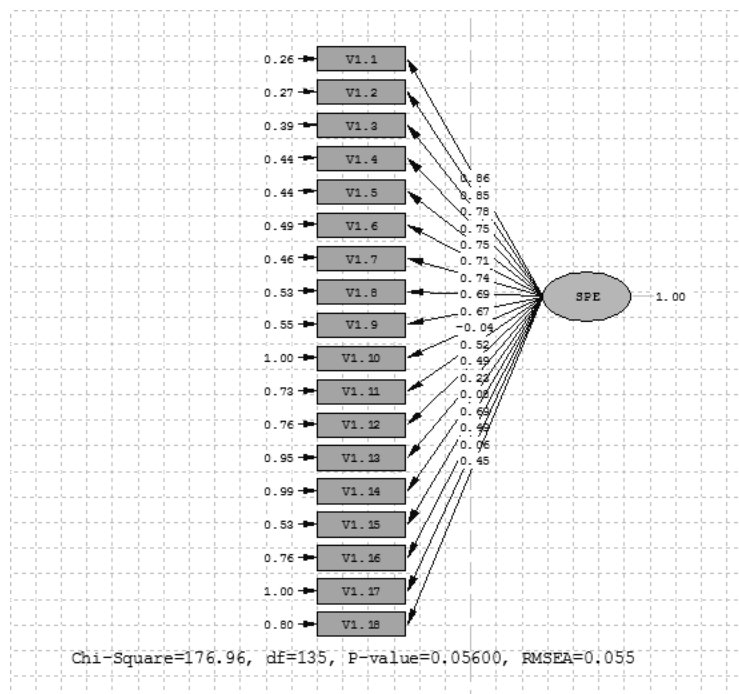


Figure 85: Model analyses for physical environment safety and its indicators (LISREL Program Output)

10.2. Appendix 2: Verification of the validity indicators of Fear of crime

The model analyses (path diagram) represents the results of assess on fear of crime indicators.

Table 4: Validity test in the case of Fear of crime indicators

<i>Indicator</i>	<i>Value</i>
Chi-Square	7.94
Df	5
Chi-Square/ Df	1.58
RMSEA	0.034
GFI	0.95
AGFI	0.92
CFI	0.93
NFI	0.92
RMR	0.025

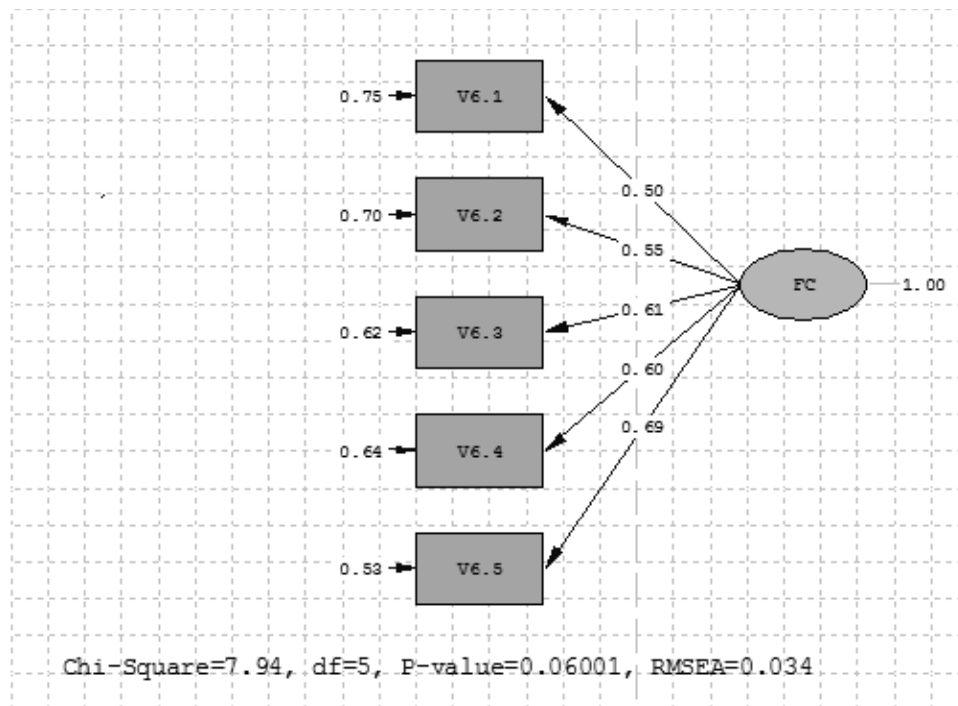


Figure 86: Model analyses for fear of crime and its indicators (LISREL Program Output)

10.3. Appendix 3: Verification of the validity indicators of crime experience

The models analyses (path diagram) represent the results of assess on experience of crime indicators.

Table 5: Validity test in the case of crime experience indicators

<i>Indicator</i>	<i>Value</i>
Chi-Square	3.39
Df	2
Chi-Square/ Df	1.69
RMSEA	0.045
GFI	0.95
AGFI	0.92
CFI	0.94
NFI	0.95
RMR	0.027

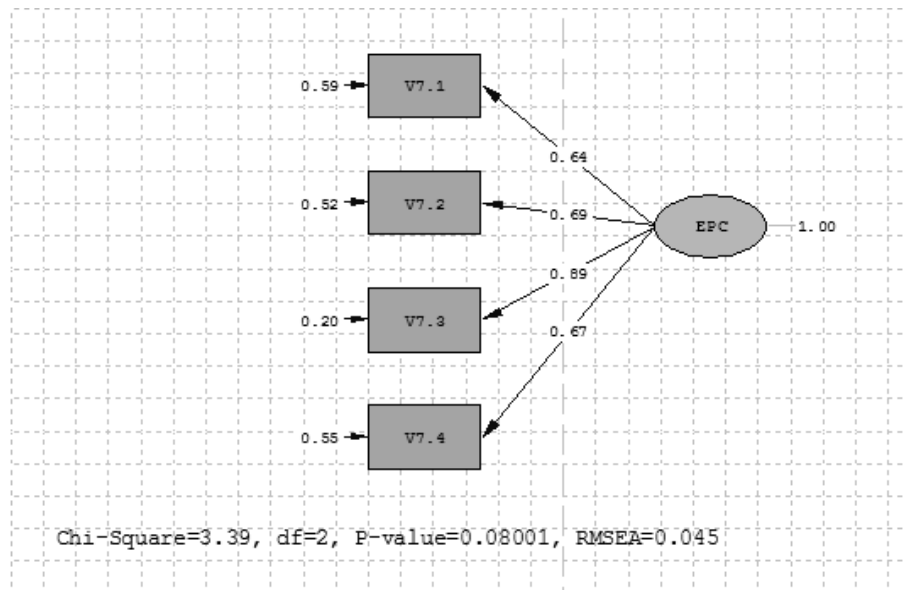


Figure 87: Model analyses for experience of crime and its indicators (LISREL Program Output)

10.4. Appendix 4: Verification of the validity indicators of rate of crime

The model analyses (path diagram) represents the results of assess on Rate of crime indicators.

Table 6: Validity test in the case of Rate of crime indicators

Indicator	Value
Chi-Square	1.95
Df	2
Chi-Square/ Df	0.97
RMSEA	0.021
GFI	0.96
AGFI	0.95
CFI	0.97
NFI	0.93
RMR	0.023

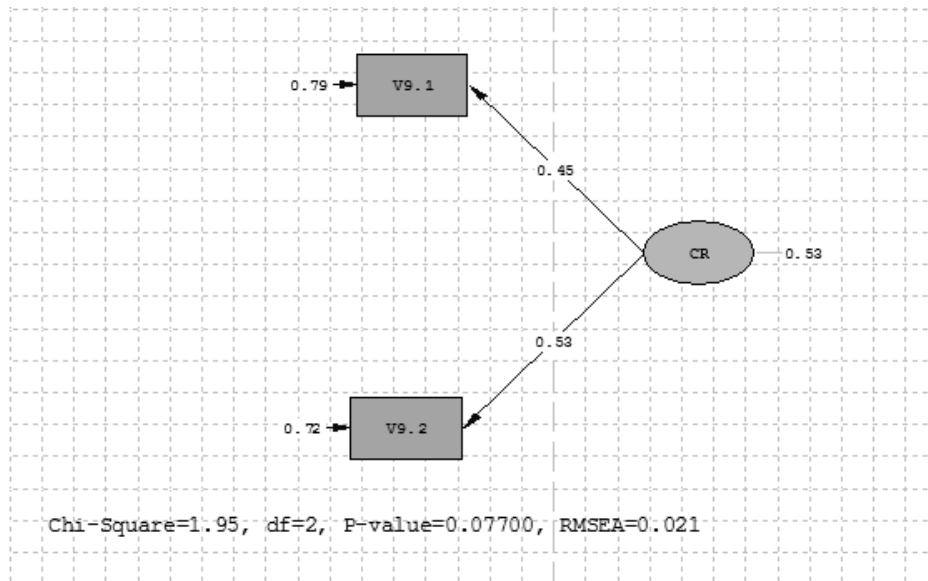


Figure 88: Model analyses for rate of crime and its indicators (LISREL Program Output)

Table 72: Chi-Square test in the case of Validity

Indicate	χ^2/df	RMSEA	GFI	AGFI	CFI	NFI	RMR
Physical environment	1.31	0.055	0.98	0.94	0.96	0.98	0.039
Fear of crime	1.58	0.034	0.95	0.92	0.93	0.92	0.025
Experience of crime	1.51	0.048	0.95	0.92	0.94	0.95	0.027
Crime rate	0.97	0.021	0.96	0.95	0.97	0.93	0.023
Acceptable level	< 2	< 0.08	> 0.90	> 0.90	> 0.90	> 0.90	< 0.05

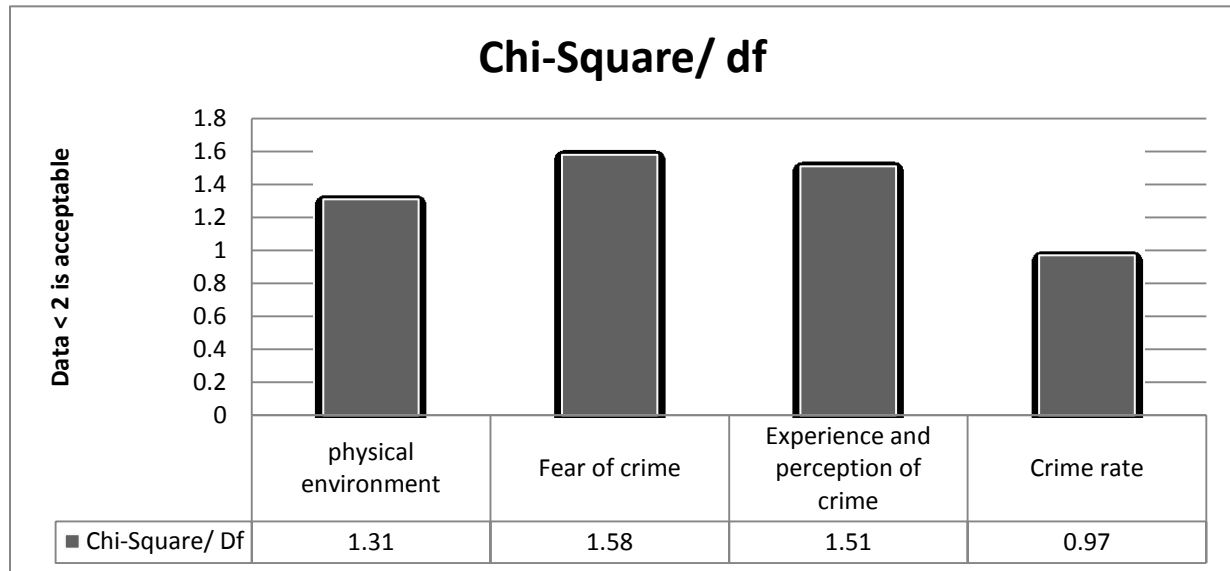


Figure 89: Distribution of Chi-Square/df among objects in study

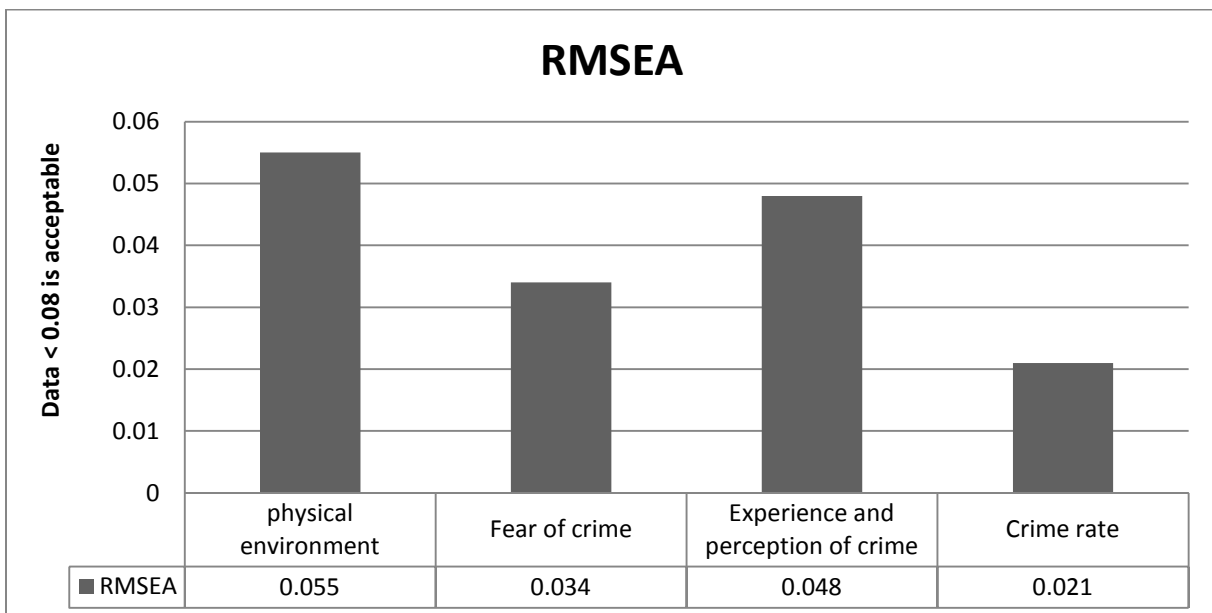


Figure 90: Distribution of RMSEA among objects in study

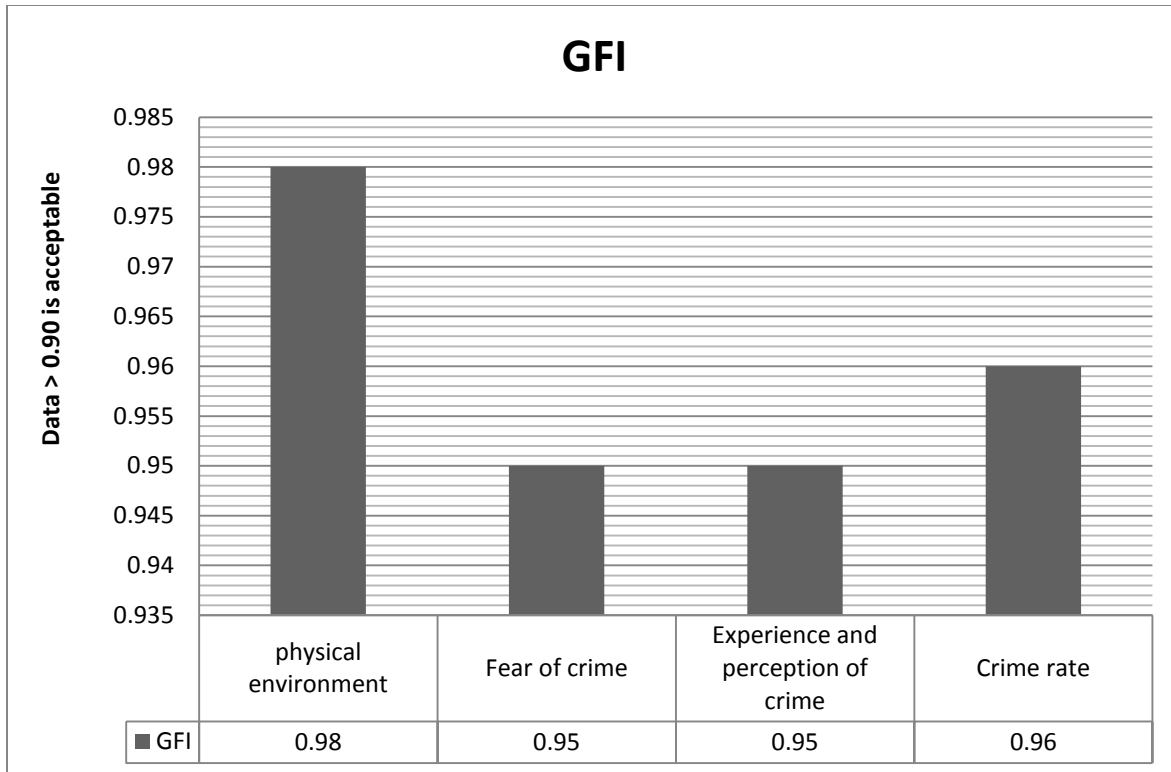


Figure 91: Distribution of GFI among objects in study

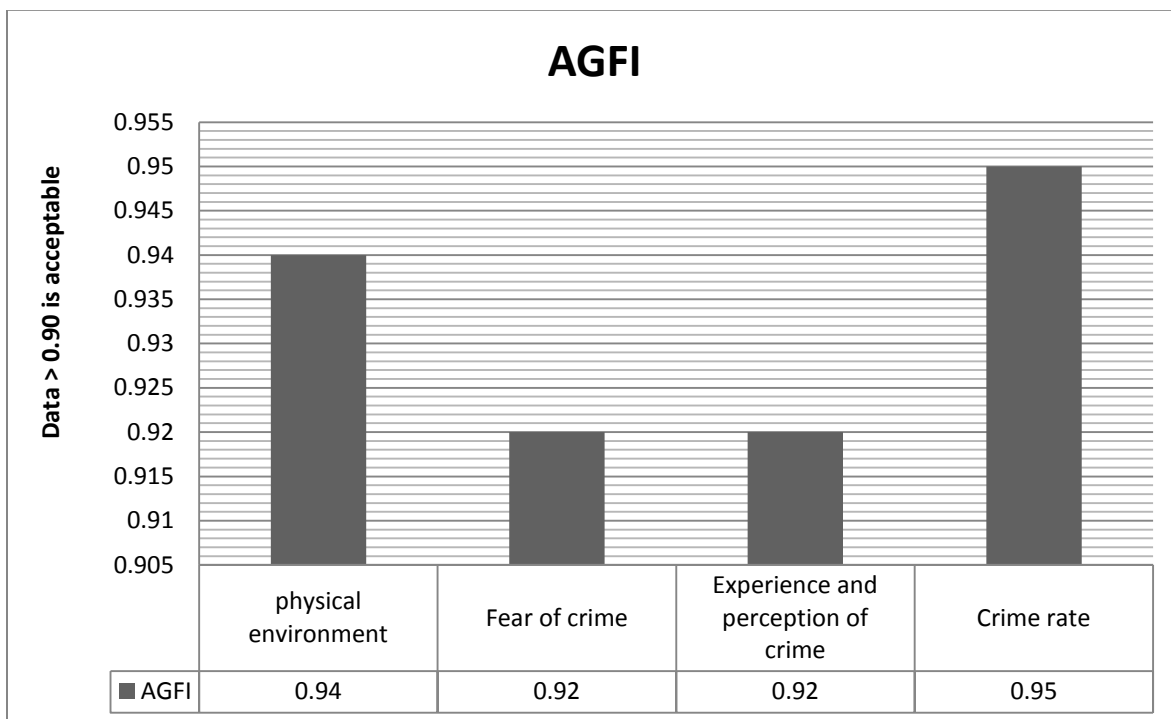


Figure 92: Distribution of AGFI among objects in study

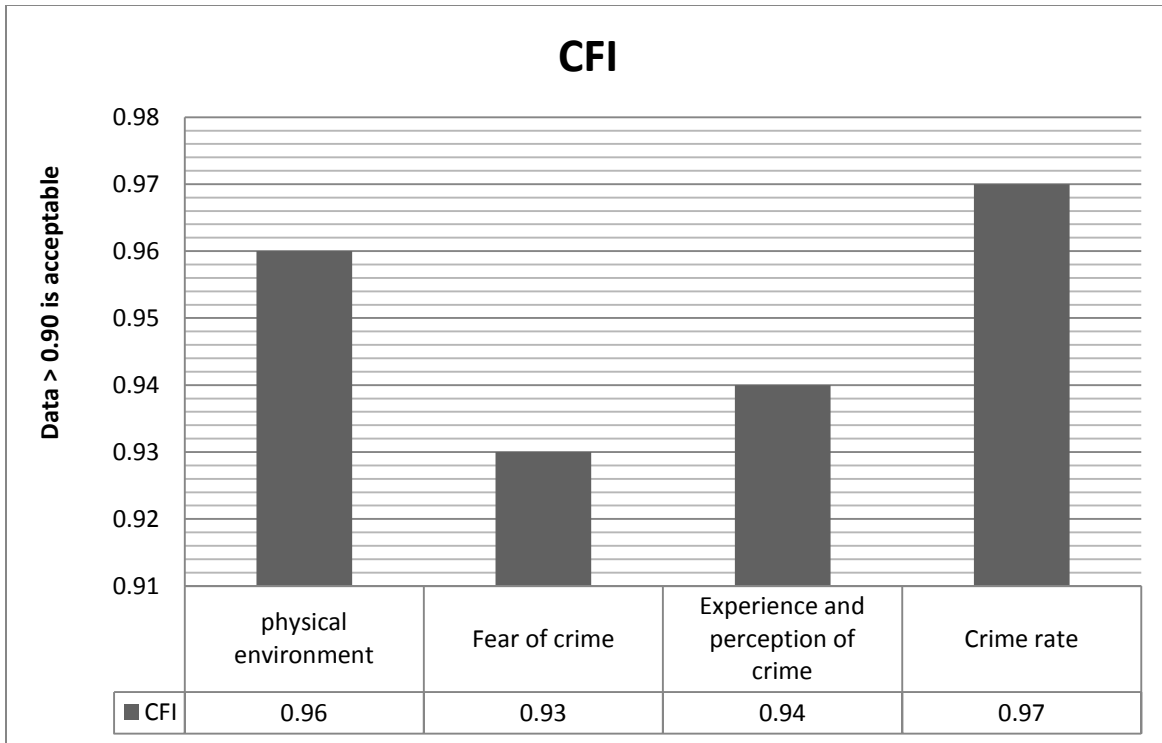


Figure 93: Distribution of CFI among objects in study

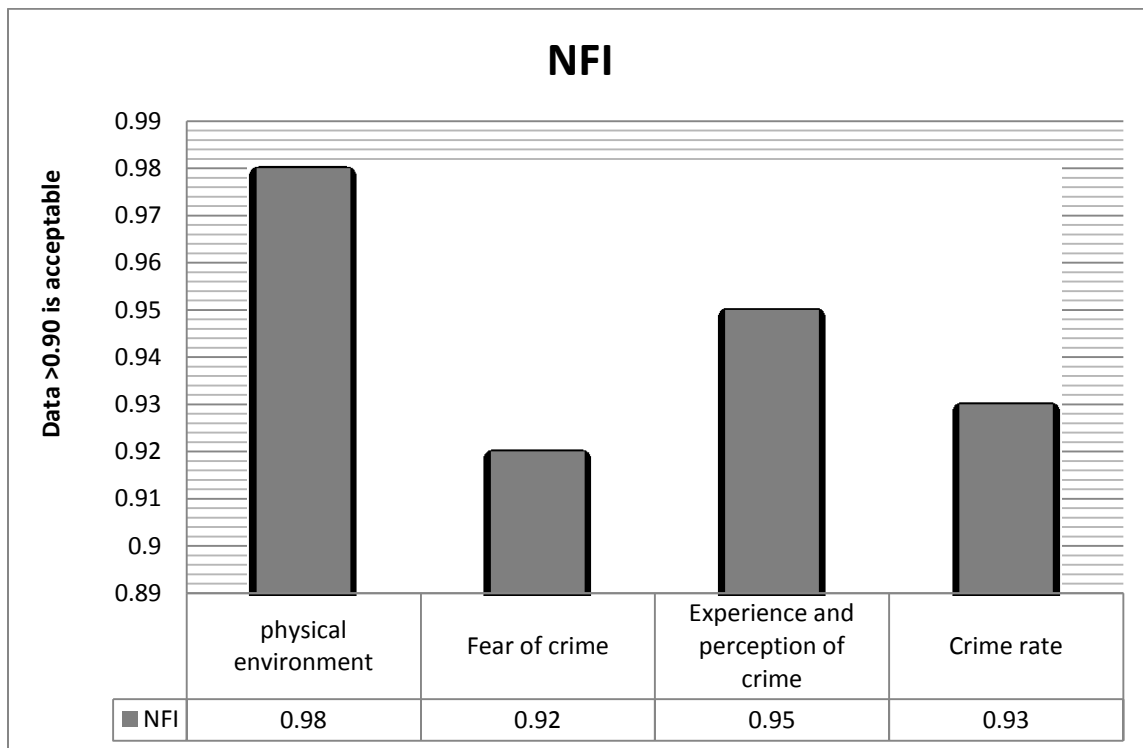


Figure 94: Distribution of NFI among objects in study

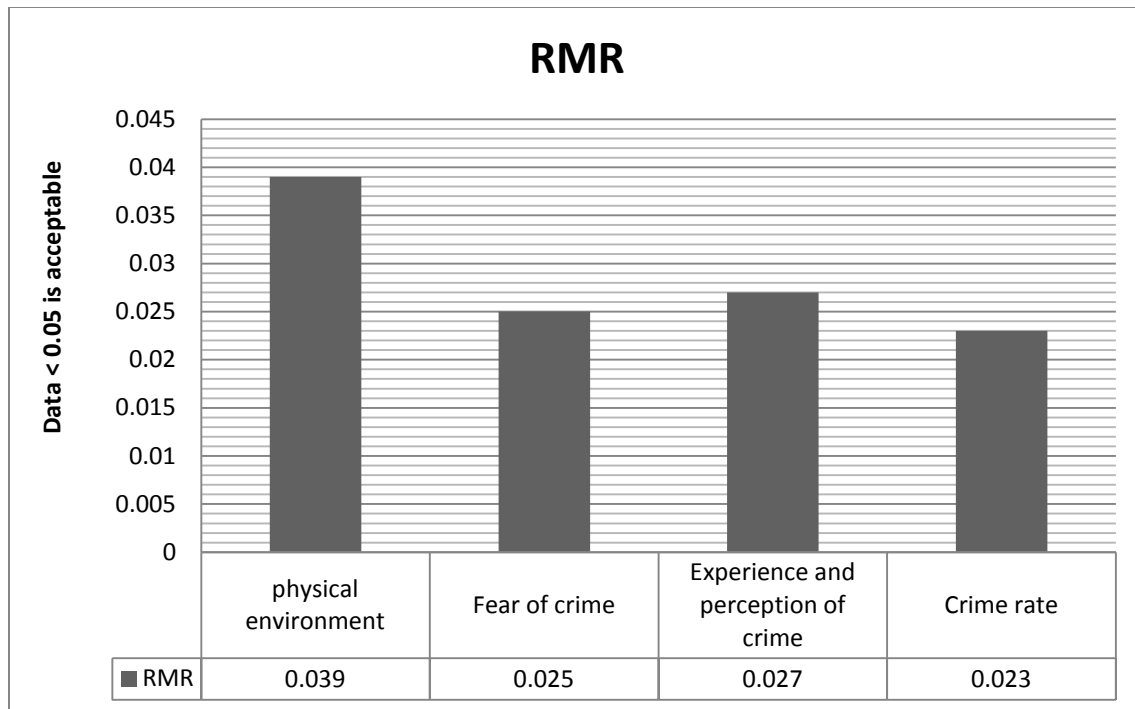


Figure 95: Distribution of RMR among objects in study

10.5. Appendix 5: Verify the Reliability

Cronbach's alpha coefficients

The results of Cronbach's alpha coefficients for each of the indicators described in the following table

Table 7: Alpha level for each of the indicators in research

<i>Indicate</i>	<i>Cronbach's alpha coefficient</i>
<i>physical environment</i>	<i>0.844</i>
<i>Fear of crime</i>	<i>0.701</i>
<i>Experience of crime</i>	<i>0.713</i>
<i>Crime rate</i>	<i>0.764</i>
<i>Feeling safety</i>	<i>0.812</i>

As indicated in the above table, all Alpha levels are more than 0.70 obtained. And this represents the inter-correlations between variables used to measure perceptions and thus can say that in our study has the reliability and validity.

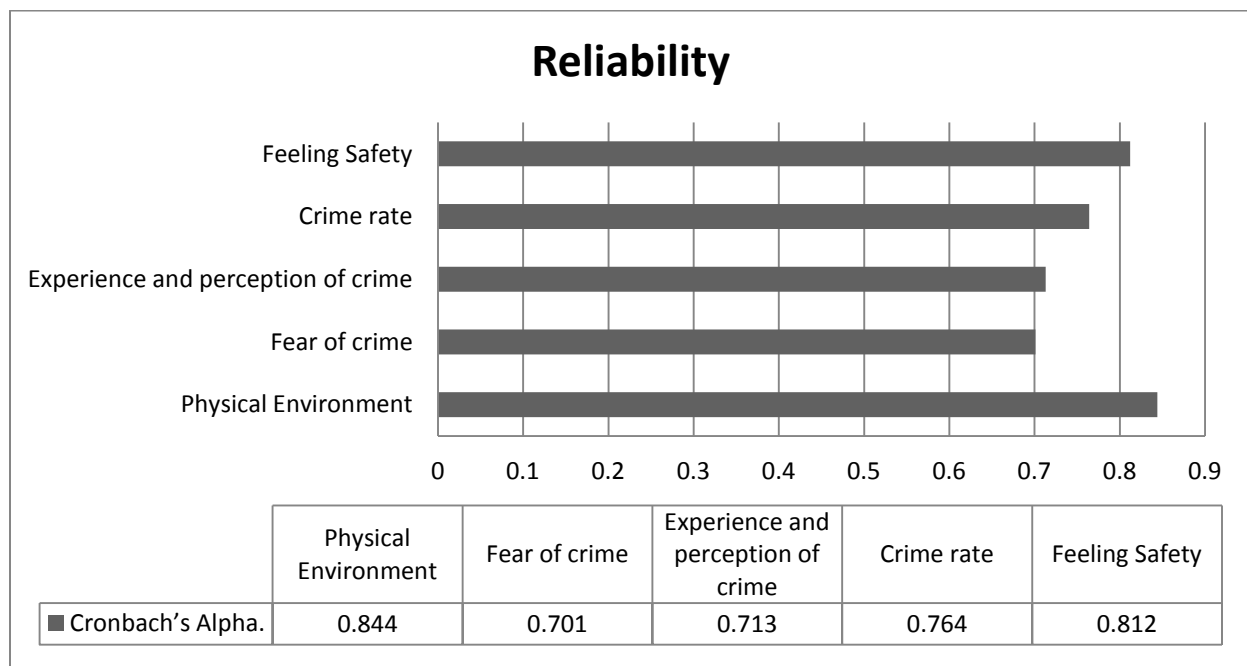


Figure 96: Alpha level for each of the indicators in research

Table 73: The reliability coefficient (alpha) range

<i>Internal consistency</i>	<i>Cronbach's alpha</i>
<i>Excellent (High-Stakes testing)</i>	$\alpha \geq 0.9$
<i>Good (Low-Stakes testing)</i>	$0.7 \leq \alpha < 0.9$
<i>Acceptable</i>	$0.6 \leq \alpha < 0.7$
<i>Poor</i>	$0.5 \leq \alpha < 0.6$
<i>Unacceptable</i>	$\alpha < 0.5$

10.6. Appendix 6: Data extraction for physical environment safety indicators

Table 74: Data extraction for physical environment safety indicators

<i>Indicate</i>	χ^2/df	<i>RMSEA</i>	<i>GFI</i>	<i>AGFI</i>	<i>CFI</i>	<i>NFI</i>	<i>RMR</i>
<i>Physical environment</i>	1.31	0.055	0.98	0.94	0.96	0.98	0.039
<i>Fear of crime</i>	1.58	0.034	0.95	0.92	0.93	0.92	0.025
<i>Experience of crime</i>	1.51	0.048	0.95	0.92	0.94	0.95	0.027
<i>Crime rate</i>	0.97	0.021	0.96	0.95	0.97	0.93	0.023
<i>Acceptable level</i>	< 2	< 0.08	> 0.90	> 0.90	> 0.90	> 0.90	< 0.05

10.7. Appendix 7: Web pilot test-Tehran

☰

Hamidreza's Questionnaire in Persian ☆

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Page 1 of 1

پاسخگوی گرامی

این پرسشنامه برای مطالعه رابطه ترس از جرم و احساس امنیت در فضاهای شهری می باشد. پیشاپیش از اینکه با صداقت و حوصله به سوالات پاسخ می دهید، صمیمانه سپاسگزاریم.

*** امنیت خود را در هریک از شرایط زیر چطور ارزیابی می کنید؟**

	کاملاً مخالفم	مخالفم	تا حدودی	موافقم	کاملاً موافقم
در کوچه محل سکونت خود احساس امنیت می کنم.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
در خیابان اصلی محل سکونت خود احساس امنیت می کنم.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
در بوستان محل سکونت خود احساس امنیت می کنم.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
هنگام عبور از مکان های خلوت احساس امنیت می کنم.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
هنگام عبور از کنار پروژه های ساختمانی در حال ساخت احساس	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 97: Web pilot test - Tehran

10.8. Appendix 8: Web pilot test- Stockholm

☰

Hamidreza's Questionnaire in English ☆

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Page 1 of 1

Dear Responder

This questionnaire is for a SLU university researches on the relationship between fear of crime and security in urban spaces in your neighbors. Please answer these questions with honesty and patience.

1. How do you evaluate your feeling of security in each situation below? *

	Absolutely	Positive	Neutral	Negative	Not at all
1. I feel secure where I live.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I feel secure on the main street.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I feel secure on local parks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I feel secure passing deserted (not crowded) places.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I feel secure passing construction site.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I feel secure in residential areas without shops.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 98: Web pilot test - Stockholm

10.9. Appendix 9: Blank question form

Dear Responder,

This questionnaire is for a SLU university researches on the relationship between fear of crime and security in urban spaces in your neighbors. Please answer these questions with honesty and patience.

Date: / 12/2013 - Time: Place: Are you living in this neighborhood? ☐ Or Are you a passenger? ☐

How long have you been in living in this neighborhood? Year(s)

1. How do you evaluate your feeling of security in each situation below?

Please choose one of the choices for each question: 1- Absolutely 2- Positive 3- Neutral 4 Negative 5-Not at all		Absolutely 1	Positive 2	Neutral 3	Negative 4	Not at all 5
1	I feel secure where I live.					
2	I feel secure on the main street.					
3	I feel secure on local parks.					
4	I feel secure passing deserted (not crowded) places.					
5	I feel secure passing construction sites.					
6	I feel secure in residential areas without shops.					
7	I feel secure where windows are facing the walk side.					
8	I feel secure in crowded and busy pedestrian walks with shops.					
9	I feel secure passing zebra crossing.					
10	I feel unsecure passing streets with bushes and tall trees.					
11	The light of the street where I live is good enough.					
12	I feel secure in darkness.					
13	I feel rather secure on days than nights.					
14	I feel unsecure in dead-end allies.					
15	I feel secure waiting for bus or a friend.					
16	I know my neighborhood.					
17	I know my neighbors.					
18	I use public transportation.					

Please choose one of the choices:

2. What kind of crime have had happened the most in your neighborhood during last 6 months.

Accident ☐ Rubbery ☐ Drug Dealing ☐ Street fights ☐ Murder ☐ none ☐

3. When do you feel more scared? Holding cash ☐ Parking your car in street ☐ Walking alone ☐

4. Who do you thing is getting more scared? Men ☐ Women ☐

5. Who do you think is more possible to be subject to crime? Men ☐ Women ☐

Figure 99: Blank question form page 1

Please choose one of the choices: 1-Strongly Disagree 2- Disagree3- Neutral 4- Agree 5- Strongly Agree	1	2	3	4	5
I am not anxious or fearful about some risk of crime in my neighborhood					
I feel scared for my close family to walk in neighborhood.					
Accumulation of stranger passersby will not feel of insecurity.					
I prefer to do my stuff during days than nights.					
Felling fear when I passing the border of my neighborhood					

Please choose one of the choices 1-Never 2-Very Low 3-Low 4- Neutral 5-Rather High 6-High	1	2	3	4	5	6
How much do you experience any kind of criminality on the street? (Neighborhood)						
How much any of your close family ever experienced any kind of criminality in your neighborhood?						
How much you ever seen any kind of criminality for somebody else in your neighborhood?						
How much you ever heard that any kind of criminality happened for someone else in your neighborhood?						
If I was living in Tensta instead of your neighbors, I would rather feel insecure.						

8- If you experienced any kind of criminality on the street (Neighborhood),

8.1 : Was it Night ☐ or Day ☐ **8.2: ,Was it** Alone ☐ or With somebody ☐

Please choose one of the choices: 1-High 2- Rather high 3- Average 4- Low 5-very low	1	2	3	4	5
My evaluation of crime in my neighborhood is					
My evaluation of crime in my neighborhood compared to other ones is					

Age: **Gender:** Female ☐ Male ☐

Status : Single ☐ Married ☐ With Children ☐

Health status: Healthy ☐ Disabled ☐ If yes what kind of disability.....

Place of birth: Sweden ☐ Abroad ☐

Parents' place of birth (Father: Sweden ☐ Abroad ☐ - Mother: Sweden ☐ Abroad ☐

Education: Under 12years ☐ 12years (gymnasium) ☐ 16Y (bachelor) ☐ 18Y(masters) ☐ More than 18Y ☐

Are you employed? Yes ☐ No ☐ **Your place of living is:** Rental ☐ Your own house ☐

Figure 100: Blank question form page 2

10.10. Appendix 10: Questions sample form in Persian language

به نام خدا

شهروند گرامی! این پرسشنامه برای مطالعه رابطه ترس از جرم و احساس امنیت در فضاهای شهری منطقه جنت آباد تهران می باشد. پيشاپيش از اينكه با صداقت و حوصله به سوالات پاسخ مي دهيد، صميمانه سپاسگزاريم.

تاریخ: ۹۷/۹/۲۵ روز هفته ۱۸ ساعت ۱۸:۲۰

محل تکمیل پرسشنامه: پارک ☒ خیابان ☐ مغازه ☐ درب منزل ☐ غیره ☐

آیا ساکن این منطقه هستید؟ ☒ بلی ☐ خیر ☐ اگر بلی، چند سال است که ساکن این منطقه هستید؟ ۱۰ سال

۱. امنیت خود را در هریک از شرایط زیر چطور ارزیابی می کنید؟

عبارت	کاملاً مخالفم	مخالفم	تا حدودی	موافقم	کاملاً موافقم
۱. در کوچه محل سکونت خود احساس امنیت می کنم.		<input checked="" type="checkbox"/>			
۲. در خیابان اصلی (جنت آباد) محل سکونت خود احساس امنیت می کنم.		<input checked="" type="checkbox"/>			
۳. در بوستان محل سکونت خود احساس امنیت می کنم.	<input checked="" type="checkbox"/>				
۴. هنگام عبور از مکان های خلوت احساس امنیت می کنم.	<input checked="" type="checkbox"/>				
۵. هنگام عبور از کنار پروژه های ساختمانی در حال ساخت احساس امنیت می کنم.	<input checked="" type="checkbox"/>				
۶. در خیابان هایی که فقط مسکونی هستند (فعالیت تجاری و خدماتی ندارند)، احساس امنیت می کنم.			<input checked="" type="checkbox"/>		
۷. هنگام عبور از پارک و یا کوچه هایی که از پنجره خانه ها به آن دید وجود دارد احساس امنیت می کنم.			<input checked="" type="checkbox"/>		
۸. هنگام عبور از پیاده رو های مملو از جمعیت و بازار شلوغ احساس امنیت می کنم.			<input checked="" type="checkbox"/>		
۹. هنگام عبور از عرض خیابان با وجود خط عابر احساس امنیت می کنم.			<input checked="" type="checkbox"/>		
۱۰. هنگام عبور از خیابان هایی با بوته ها و درختان بلند احساس خطر می کنم.	<input checked="" type="checkbox"/>				
۱۱. نور خیابان محل سکونت من مناسب است.	<input checked="" type="checkbox"/>				
۱۲. من در تاریکی خیابان محل سکونت خود احساس امنیت دارم.			<input checked="" type="checkbox"/>		
۱۳. من در روز نسبت به شب احساس امنیت دارم.	<input checked="" type="checkbox"/>				
۱۴. در کوچه های بن باز نسبت به کوچه های بن بست احساس امنیت دارم.	<input checked="" type="checkbox"/>				
۱۵. هنگامی که در خیابان منتظر هستم (دوست یا اتوبوس) احساس امنیت می کنم.			<input checked="" type="checkbox"/>		
۱۶. من محله ی جنت آباد را می شناسم.			<input checked="" type="checkbox"/>		
۱۷. من همسایگان خود را می شناسم.			<input checked="" type="checkbox"/>		
۱۸. من با وسیله نقلیه عمومی تردد می کنم.	<input checked="" type="checkbox"/>				

۲. در ۶ ماه گذشته چه جرمی بیشتر در منطقه شما اتفاق افتاده است؟

۱. تصادف ☐ ۲. سرقت ☐ ۳. خرید و فروش مواد مخدر ☐ ۴. نزاع خیابانی ☐ ۵. قتل ☒ ۶. هیچکدام ☐

۳. در چه صورتی احساس ترس بیشتری می کنید؟

۱. حمل پول نقد ☐ ۲. پارک اتومبیل شخصی در خیابان ☐ ۳. پیاده روی تنهایی ☒

۴. به نظر شما در محله جنت آباد زنان از وقوع جرم بیشتر می ترسند یا مردان؟ ۱. زنان ☒ ۲. مردان ☐

۵. به نظر شما زنان بیشتر در معرض جرم هستند یا مردان؟ ۱. زنان ☒ ۲. مردان ☐

Figure 101: Sample of Question form in Persian language page 1

۶. لطفاً پاسخ مناسب را علامت بزنید.

ردیف	عبارت	کاملاً مخالفم	مخالفم	تا حدودی	موافقم	کاملاً موافقم
۱	اگر یکی از اعضای خانواده نام ناتوان جسمی باشد، وضعیت محل زندگی من مناسب است.		✓			
۲	من از وضعیت منطقه برای تردد تنهایی بستگان درجه اول خود احساس ترس می‌کنم.		✓			
۳	من از وضعیت منطقه برای افراد معلول و ناتوان جسمی احساس ترس می‌کنم.		✓			
۴	من برای انجام کارهای بیرون از منزل، روز را به شب ترجیح می‌دهم.		✓			
۵	اگر کار من در روز به اتمام نرسید آن را به روز دیگری موکول می‌کنم تا اینکه همان شب انجامش دهم.		✓			

۷. لطفاً نظر خود را در خصوص عبارات زیر بیان کنید

ردیف	عبارت	اصلاً	خیلی کم	کم	تا حدودی	زیاد	خیلی زیاد
۱	تا چه میزان حادثه ای (هر نوع حادثه ای اعم از تصادف) در خیابان برای خودتان اتفاق افتاده است.		✓				
۲	تا چه میزان در محله شما برای بستگان نزدیکتان حادثه ای اتفاق افتاده است.		✓				
۳	تا چه میزان شاهد رخداد حادثه ای برای شخص دیگری در محله تان بودماید.		✓				
۴	چقدر ششدهاید که حادثه ای برای شخص دیگری در محله تان اتفاق افتاده باشد.		✓				
۵	تا چه میزان اگر در محله راه آهن تهران زندگی می‌کردید نسبت به محله جنت آباد احساس ترس بیشتری داشتید.		✓				

۸. اگر برای شما حادثه ای اتفاق افتاده است لطفاً بفرمائید در چه وضعیتی بوده است؟

۸-۱ در ۱ شب یا ۲ روز

۸-۲ تنها یا با همراه

۹. لطفاً پاسخ مناسب را علامت بزنید.

ردیف	عبارت	خیلی کم	کم	متوسط	زیاد	خیلی زیاد
۱	میزان جرم در منطقه خود را چقدر می‌دانید؟	✓				
۲	میزان جرم محله تان را در مقایسه با محله های دیگر چطور ارزیابی می‌کنید؟	✓				

از اینکه وقت خود را در اختیار ما قرار دادید سپاسگزاریم.

۱۰- جنسیت: ☒ زن ☐ مرد

۱۱- سن: ۳۸

۱۲- وضعیت تاهل: ☒ ۱. مجرد ☐ ۲. متاهل

۱۳- وضعیت سلامت: ☒ ۱. سالم ☐ ۲. معلول

۱۴- محل تولد: تهران

۱۵- محل تولد پدر: تهران

۱۶- محل تولد مادر: تهران

۱۷- میزان سالهای تحصیل:

۱. کمتر از ۱۲ سال (دیپلم ندارد) ☐ ۲. ۱۲ سال (دیپلم) ☐ ۳. ۱۶ سال (لیسانس) ☒ ۴. ۱۸ سال (ارشد) ☐ ۵. بیشتر از ۱۸ سال (دکتری و بالاتر)

۱۸- وضعیت اشتغال: ☒ ۱. شاغل ☐ ۲. غیر شاغل

۱۹- وضعیت مسکن: ☒ ۱. استیجاری یا رهنی ☐ ۲. ملکی

Figure 102: Sample of Question form in Persian language page 2

10.11. Appendix 11: Question form in English language

Question 1: How do you evaluate your feeling of security in each situation below?

	<i>Please choose one of the choices for each question: 1- Always 2- Often 3- Sometimes 4- Rarely 5- Never</i>	1	2	3	4	5
1-1	I feel secure where I live.					
1-2	I feel secure on the main street.					
1-3	I feel secure on local parks.					
1-4	I feel secure passing deserted (not crowded) places.					
1-5	I feel secure passing construction sites.					
1-6	I feel secure in residential areas without shops.					
1-7	I feel secure where windows are facing the walk side.					
1-8	I feel secure in crowded and busy pedestrian walks with shops.					
1-9	I feel secure passing zebra crossing.					
1-10	I feel insecure passing streets with bushes and tall trees.					
1-11	The light of the street where I live is good enough.					
1-12	I feel secure in darkness.					
1-13	I feel rather secure on days than nights.					
1-14	I feel insecure in dead-end allies.					
1-15	I feel secure waiting for bus or a friend.					
1-16	I know my neighborhood.					
1-17	I know my neighbors.					
1-18	I use public transportation.					

Please choose one of the choices:

2. What kind of crime have had happened the most in your neighborhood during last 6 months.

Accident ☐ Rubbery ☐ Drug Dealing ☐ Street fights ☐ Murder ☐ none ☐

3. When do you feel more scared? Holding cash ☐ Parking your car in street ☐ Walking alone ☐

4. Who do you thing is getting more scared? Men ☐ Women ☐

5. Who do you think is more possible to be subject to crime? Men ☐ Women ☐

Question 6:

<i>Please choose one of the choices: 1- Never 2- Rarely 3-Sometimes 4- Often 5- Always</i>	1	2	3	4	5
I am not anxious or fearful about some risk of crime in my neighborhood					
I feel scared for my close family to walk in neighborhood.					
Accumulation of stranger passersby will not feel of insecurity.					
I prefer to do my stuff during days than nights.					
Felling fear when I passing the border of my neighborhood					

Question 7:

Please choose one of the choices 1-Never 2-Very Low 3-Low 4- Neutral 5-Rather High 6-High	1	2	3	4	5	6
How much do you experience any kind of criminality on the street? (Neighborhood)						
How much any of your close family ever experienced any kind of criminality in your neighborhood?						
How much you ever seen any kind of criminality for somebody else in your neighborhood?						
How much you ever heard that any kind of criminality happened for someone else in your neighborhood?						
If I was living in Tensta instead of your neighbors, I would rather feel insecure.						

8- If you experienced any kind of criminality on the street (Neighborhood),

8.1: Was it Night? or Day? 8.2: Was it Alone? or with somebody?

Question 9:

Please choose one of the choices: 1-High 2- Rather high 3- Average 4- Low 5-very low	1	2	3	4	5
My evaluation of crime in my neighborhood is					
My evaluation of crime in my neighborhood compared to other ones is					

Age... Gender: Female ? Male? Status: Single? Married ? with Children?

Health status: Healthy ? Disabled ? If yes what kind of disability.....

Place of birth: Sweden??Abroad ? Parents' place of birth (Father: Sweden??Abroad ? - Mother: Sweden??Abroad ?)

Education: Under 12years? 12years (gymnasium) ? 16Y (bachelor)? 18Y(masters)? More than 18Y?

Are you employed? Yes? No? Your place of living is: Rental? Your own

10.12. Appendix 12 : Descriptive findings

Description of the general characteristics of the respondents will be discussed.

10.12.1. GENDER:

The next table (Table 75) analyzes the distribution of gender by city.

Stockholm: Table below shows In Stockholm 57% of participants were female and other 43% are male.

Tehran: Table below shows In Tehran 61.5% of participants were female and other 38.5% were male.

All: In whole research, our data shows 60% of participants were female and other 40% were male.

Table 75: Gender distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%	All	%Distribution
Female	57	57	123	61.5	180	60
Male	43	43	77	38.5	120	40
Sum	100	100	200	100	300	100

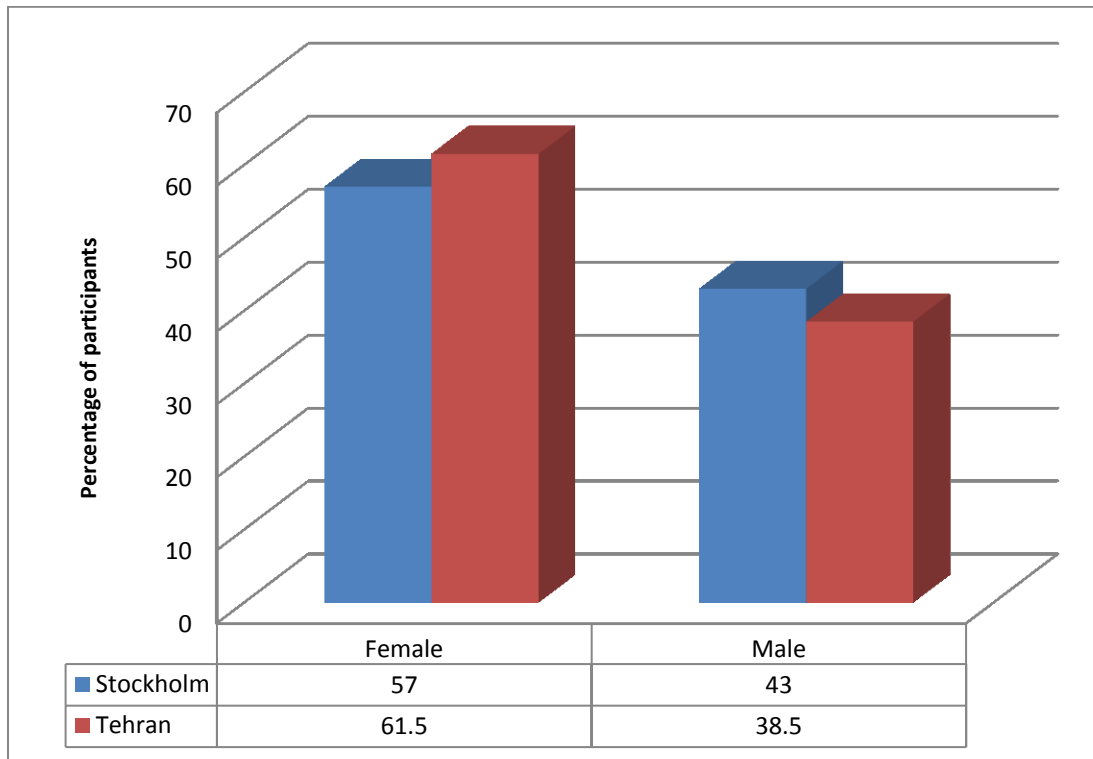


Figure 103: Gender distributions of participants in two selected site

10.12.2. AGE:

The next table (Table 76) analyzes the distribution of age by city.

Stockholm: Result show as you can see in table below In Stockholm 69% was under 35 years and 31% were above 35 years. Also the age range of participation was between 20-60 years.

Tehran: Table below shows In Tehran 65% were under 35 years and 35% were above 35 years. Also the age range of participation was 14-75 years.

ALL: In whole research, our data shows 66% of participants were under 34years and 31% over 35years.

Table 76: Age distribution

	Stockholm	Stockholm%	Tehran	Tehran%	All	%Distribution
Less than 25	11	11	28	28	67	22.3
25 - 35	58	58	37	37	132	44
Over 35	31	31	35	35	101	33.7
Sum	100	100	100	100	300	100
Mean	34	-	34	-	34	-
SD	9.10	-	11.87	-	10.95	-
Min	-	20	-	14	-	14
Max	-	60	-	75	-	75

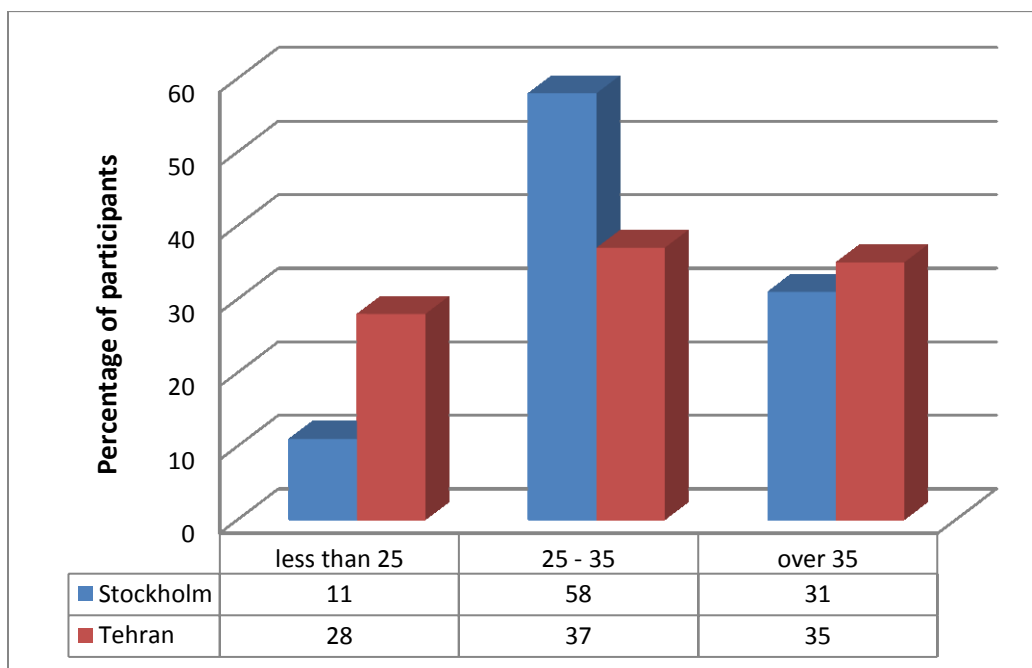


Figure 104: Age distribution of participants in two selected site

10.12.3. Marital status:

The next table (Table 77) analyzes the distribution of marital status by city.

Stockholm: Results show In Stockholm 66% were single and other 31% were married.

Tehran: Table below shows In Tehran 51% were married and 49% were single.

ALL: In whole research 55% of participation was by singles and 45% by married.

Table 77: Marital status distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%	All	%Distribution
Single	66	66	98	49	164	54.7
Married	34	34	102	51	136	45.3
Sum	100	100	200	100	300	100

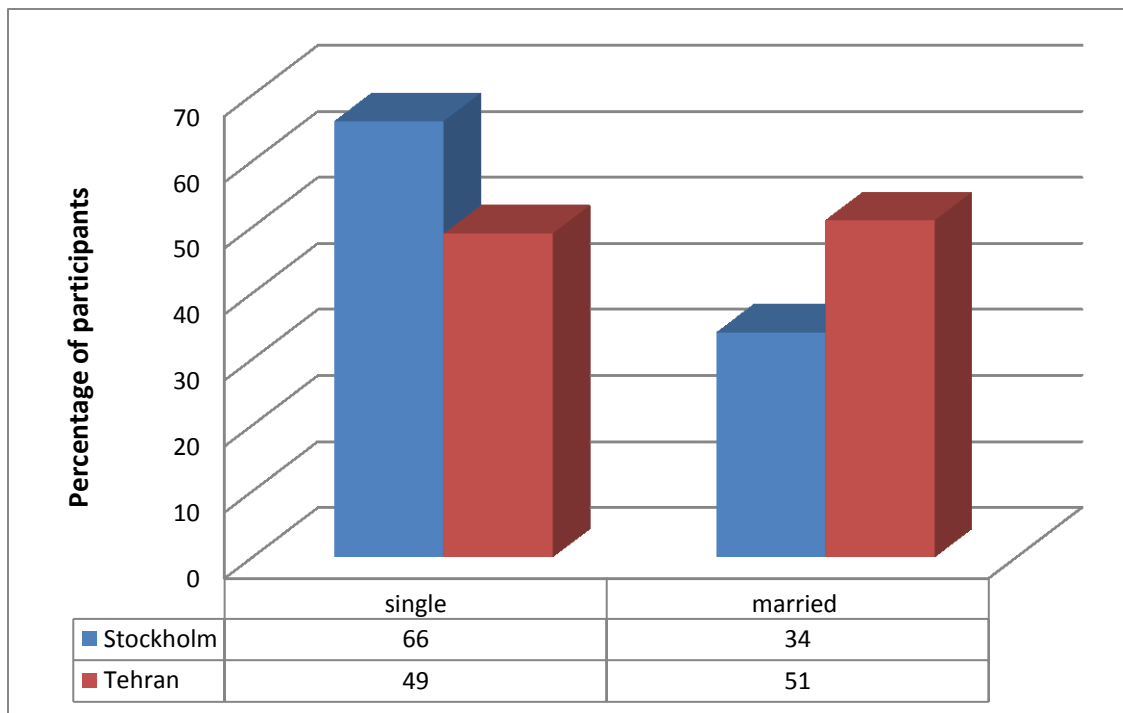


Figure 105: Marital status distributions of participants in two selected site

10.12.4. Children:

The next table (Table 78) analyzes the distribution of number of children that participants are parent to in each city.

Stockholm: Result shows In Stockholm 53% of them at least had one or two and 47% had no children.

Tehran: Table below shows In Tehran 60% of them at least had one or two and 19% had no children and 21% had more than two children.

Table 78: Children distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
none	16	47.1	19	18.6
1 or 2	18	52.9	61	59.8
more than 2	0	0	22	21.6
all	34	100	102	100

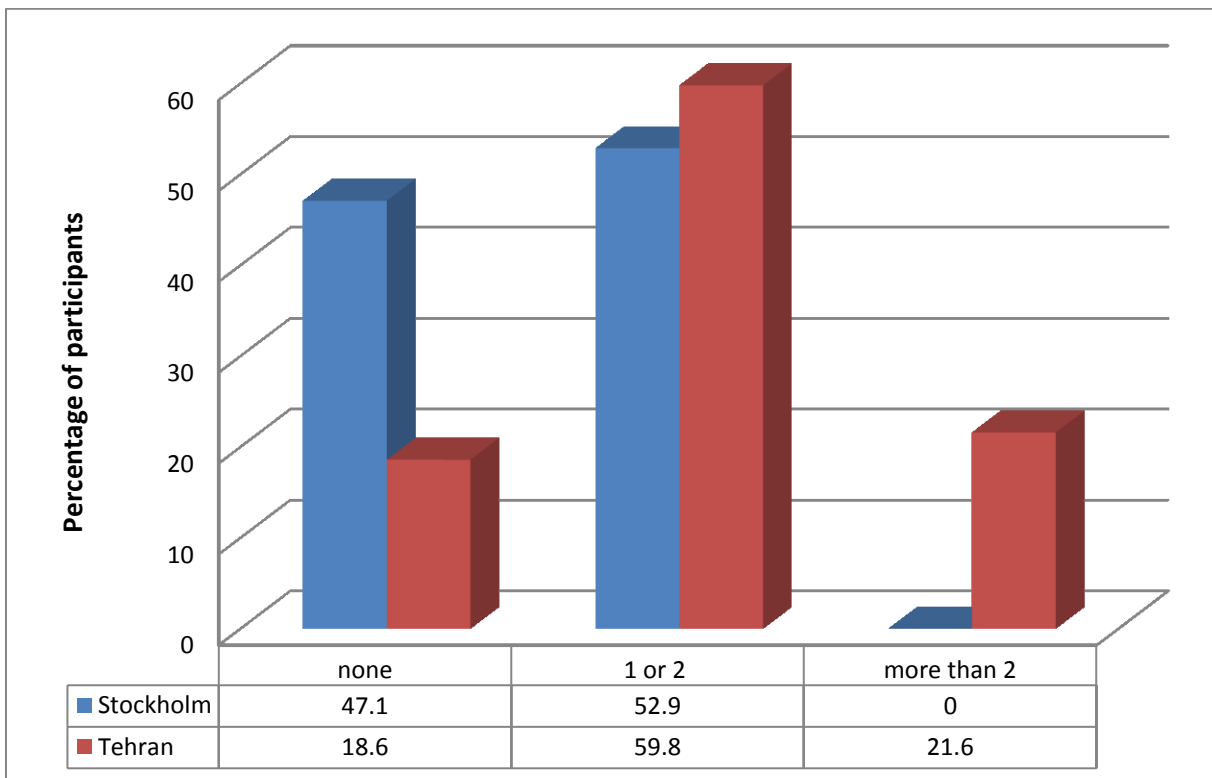


Figure 106: Children of participant's distribution in two selected site

10.12.5. Health:

The next table (Table 79) analyzes the distribution of health conditions of people who took part in the research.

Stockholm: In Stockholm all of them were with no disability.

Tehran: Table below shows In Tehran most of them were with no disability (98.5%).

Table 79: Disability distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Without disability	100	100	197	98.5
With disability	0	0	3	1.5
all	100	100	200	100

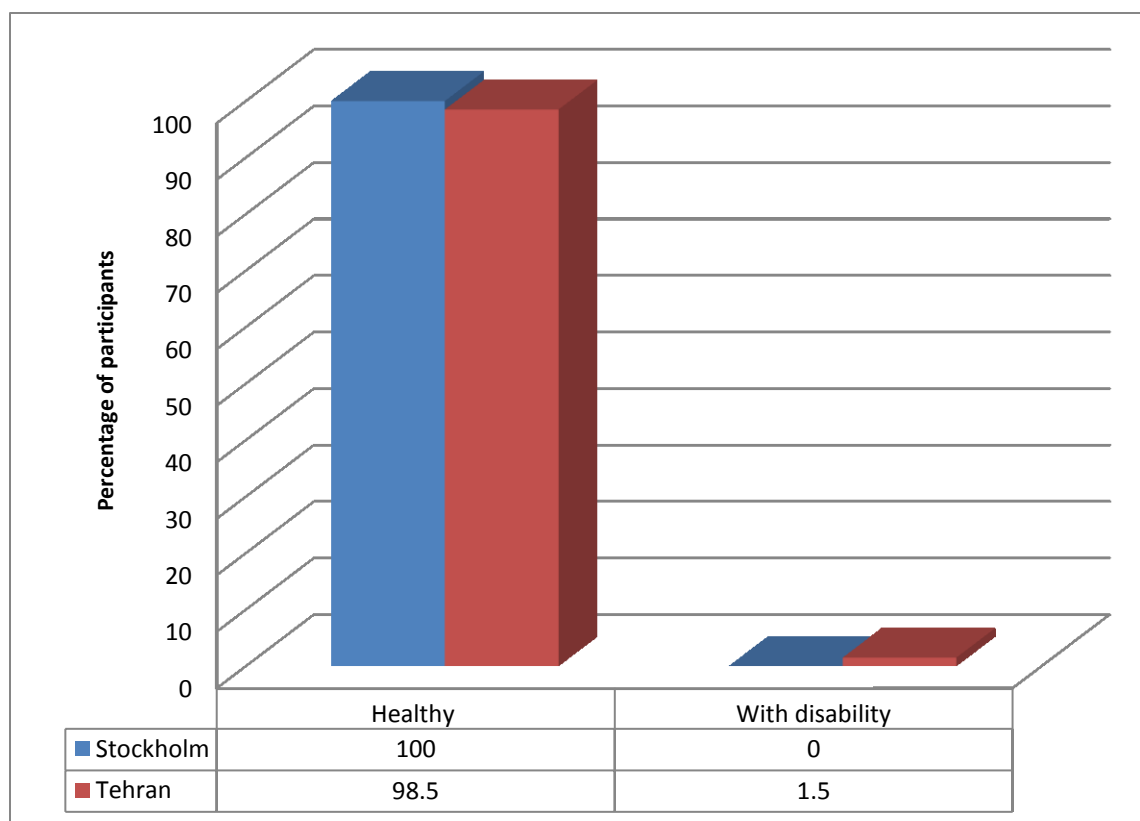


Figure 107: Disability of participant's distribution in two selected site

10.12.6. Background (Born Place):

The next table (Table 80) analyzes the distribution of peoples' background. For example, how many people born and lived in their birthplace or somewhere else.

Stockholm: Results show that in Stockholm 59% of them were born in Stockholm and 21% were born somewhere else and 20% didn't answer this question.

Tehran: Table below shows In Tehran 51% were born in Tehran and 37% were born out of Tehran and 12% didn't answer this question.

Table 80: Place of Born distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Local	59	59	102	51
Expatriates	21	21	74	37
Missing data	20	20	24	12
Sum	100	100	200	100

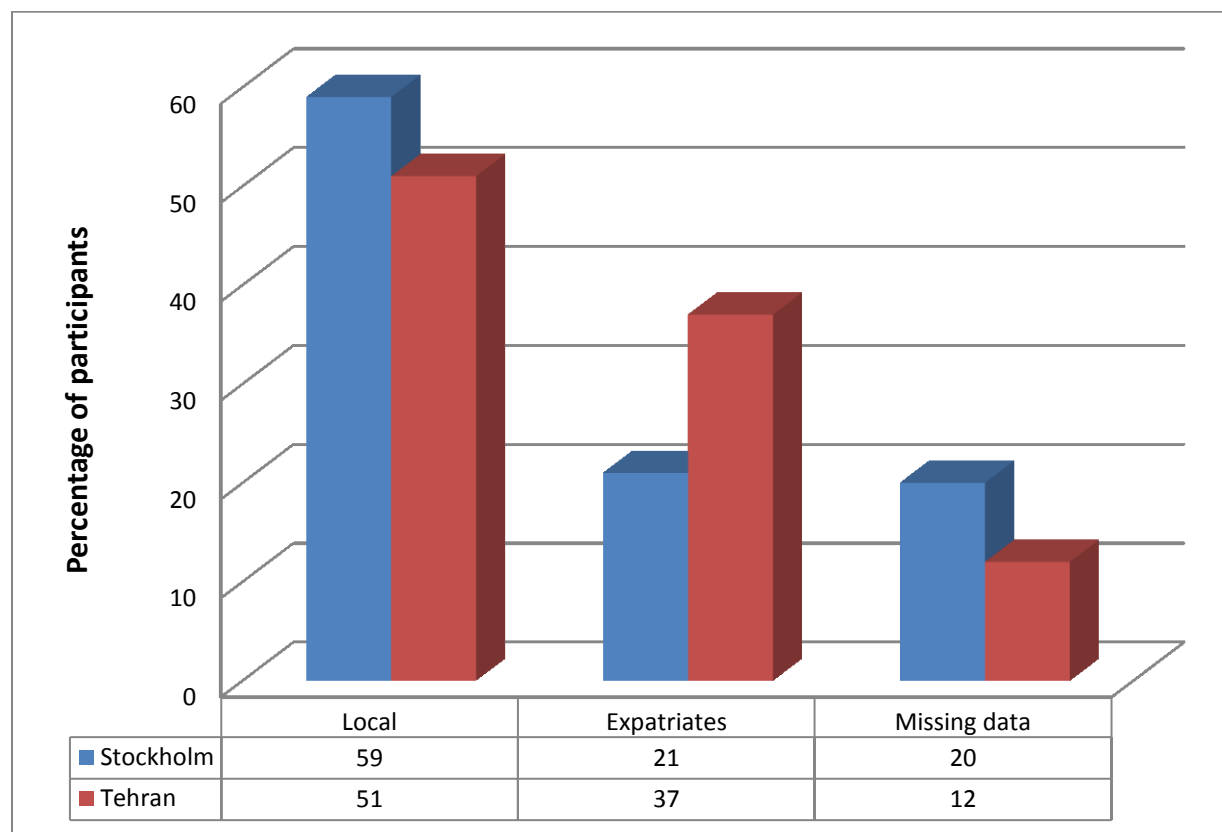


Figure 108: Place of Born of participant's distribution in two selected site

10.12.7. Parents Background (Father):

The next table (Table 81) analyzes the distribution of participant's male parent's background.

Stockholm: Results show that In Stockholm 57% of their fathers was born in Stockholm and 23% were born somewhere else and 20% didn't answer this question.

Tehran: Table below shows In Tehran 30.5% of our participant's fathers were born in Tehran and 51% were born out of Tehran and 18.5% didn't answer this question.

Table 81: Father's Birthplace distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Local	57	57	61	30.5
Expatriates	23	23	102	51
Missing data	20	20	37	18.5
Sum	100	100	200	100

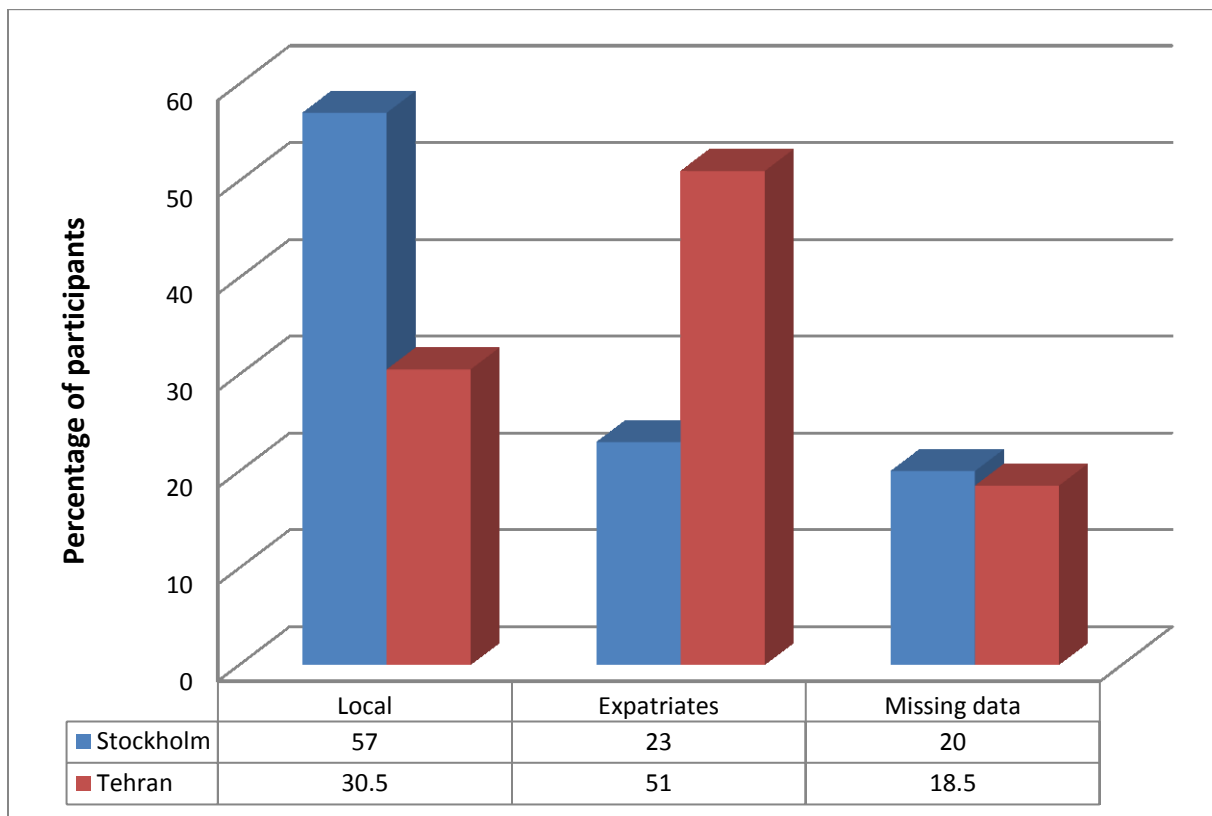


Figure 109: Birthplace of participant's distribution in two selected site

10.12.8. Parents Background (Mother):

The next table (Table 82) analyzes the distribution of participant's female parents' background.

Stockholm: Result shows In Stockholm 45% of their mothers were born in Stockholm and 28% were born somewhere else and 20% didn't answers this question.

Tehran: Table below shows In Tehran 32% of our participant's mothers were born in Tehran and 43% were born out of Tehran and 25% didn't answer this question.

Table 82: Mother's Birthplace distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Local	45	45	64	32
Expatriates	28	28	86	43
Missing data	20	20	50	25
Sum	100	100	200	100

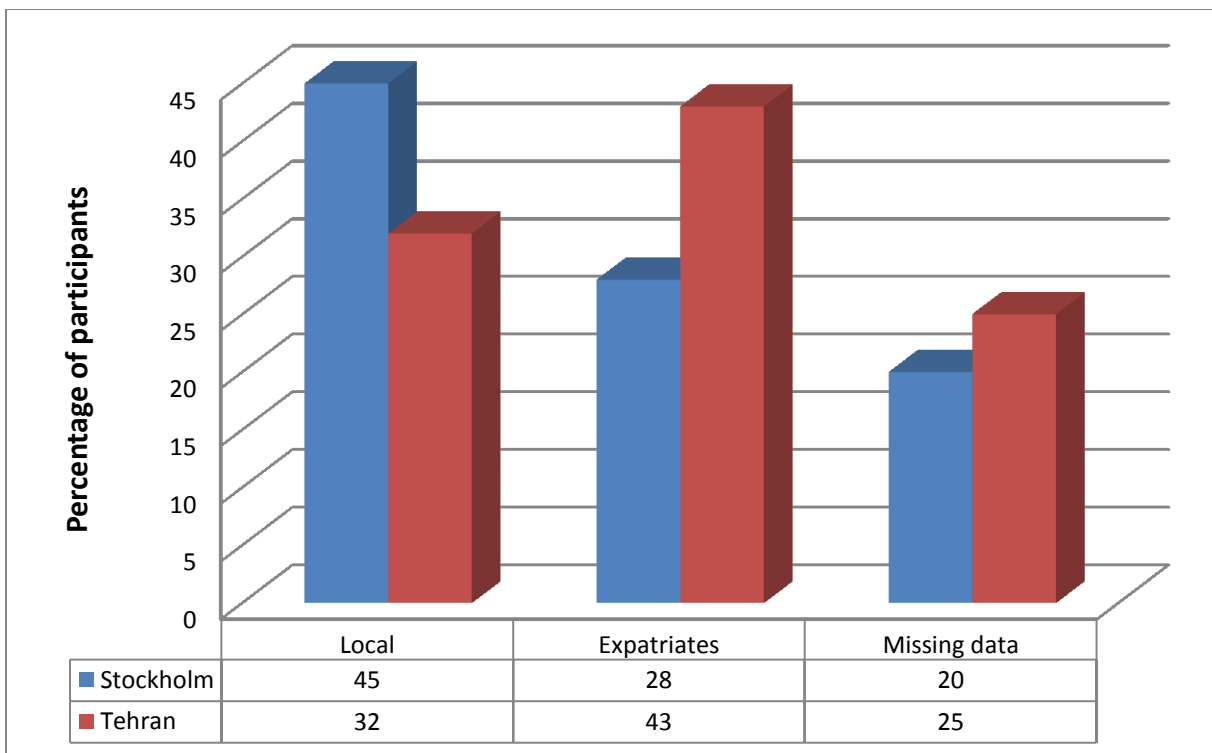


Figure 110: Mother Birthplace of participant's distribution in two selected site

10.12.9. Level of education:

The next table (Table 83) analyzes the distribution by level of education in both research sites.

Stockholm: In Stockholm 10% High school diploma, 22% bachelor. 52% were Master and 16% PhDs.

Tehran: In Tehran 22% under High school Diploma, 44.5 diplomas, 35.5% bachelor, 7.5% master and 1.5 PhDs.

Table 83: Educational distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Under 12 years	0	0	22	11
High school	10	10	89	44.5
Bachelor	22	22	71	35.5
Master	52	52	15	7.5
PhD	16	16	3	1.5
Sum	100	100	200	100

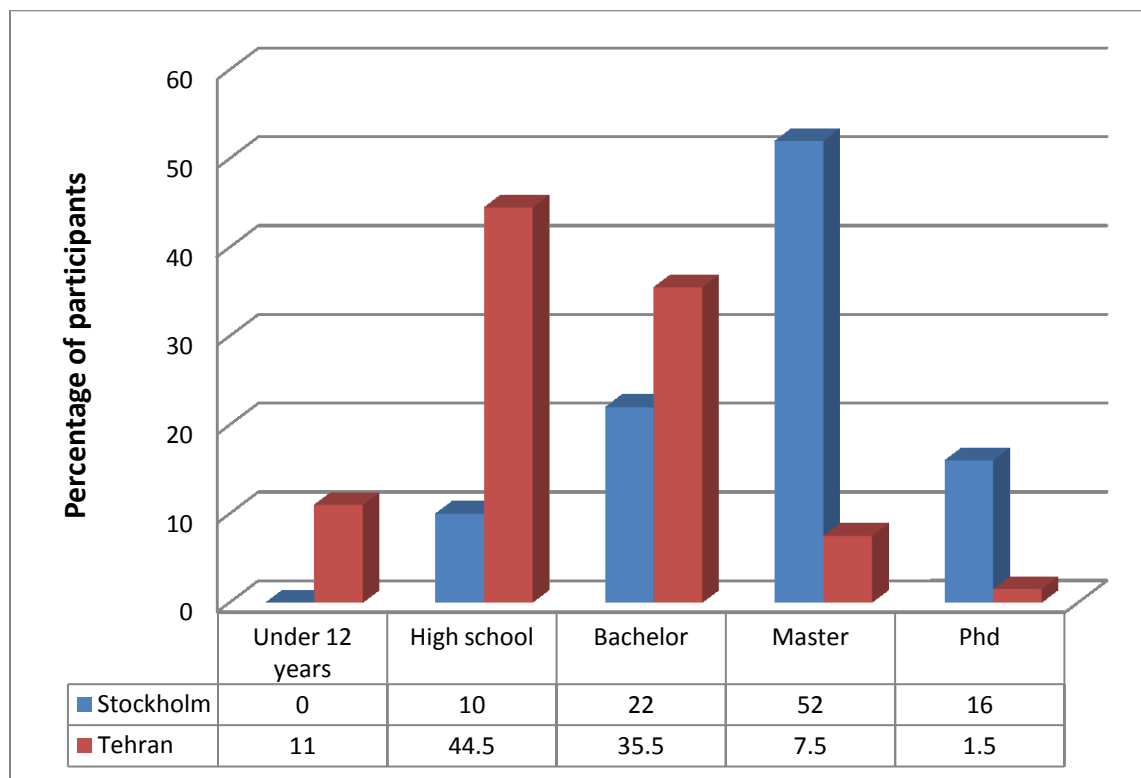


Figure 111: Educational level of participant's distribution in two selected site

10.12.10. Employment status:

The next table (Table 84) analyzes the distribution by employment status.

Stockholm: Result shows In Stockholm 66% of our participants were employed and 34% were unemployed.

Tehran: Table below shows In Tehran 59% of our participants were employed and 41% were unemployed.

Table 84: Employment status distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Employed	66	66	118	59
Unemployed	34	34	82	41
Sum	100	100	200	100

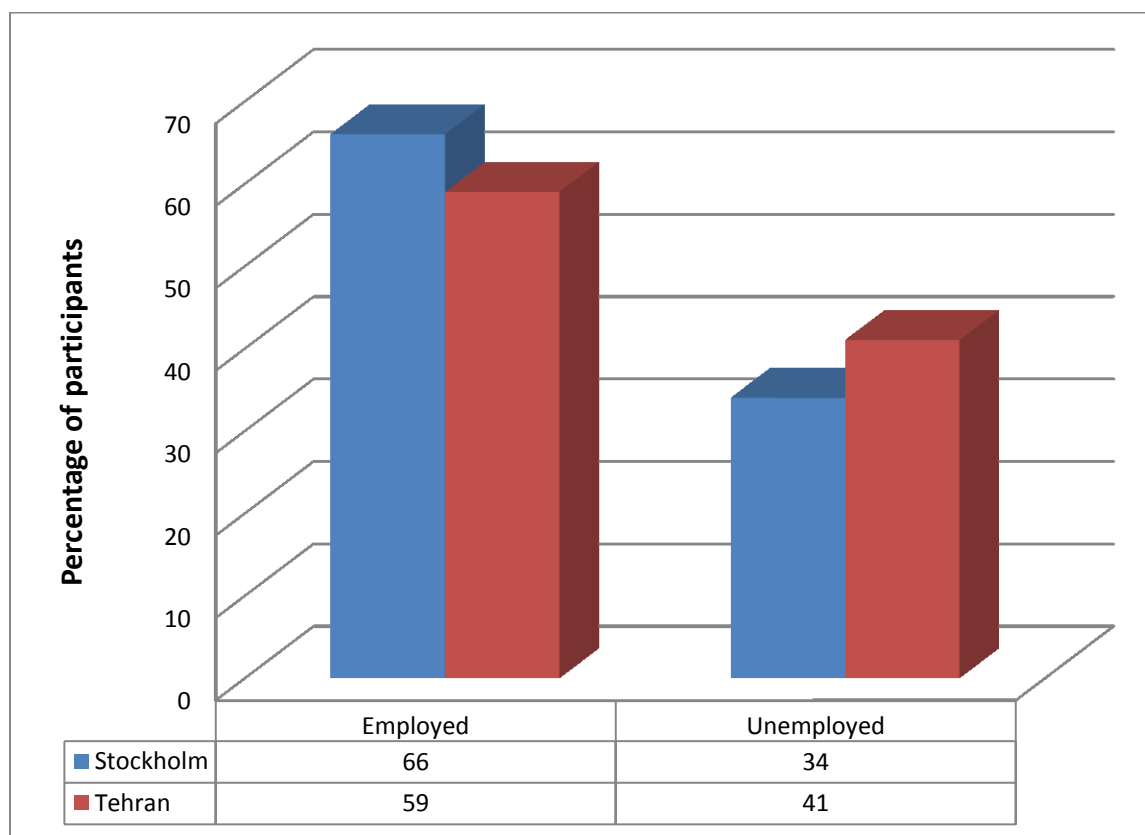


Figure 112: Employment status of participant's distribution in two selected site

10.12.11. Current residence status:

The next table (Table 85) analyzes the distribution by residence place of our participle status.

Stockholm: Result shows In Stockholm 69% were living in rentals and 31% owned their place.

Tehran: Table below shows In Tehran 49.5% was living in rentals and 50.5% owned their living place.

Table 85: Living Place status Distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Rental	69	69	99	49.5
Owned	31	31	101	50.5
all	100	100	200	100

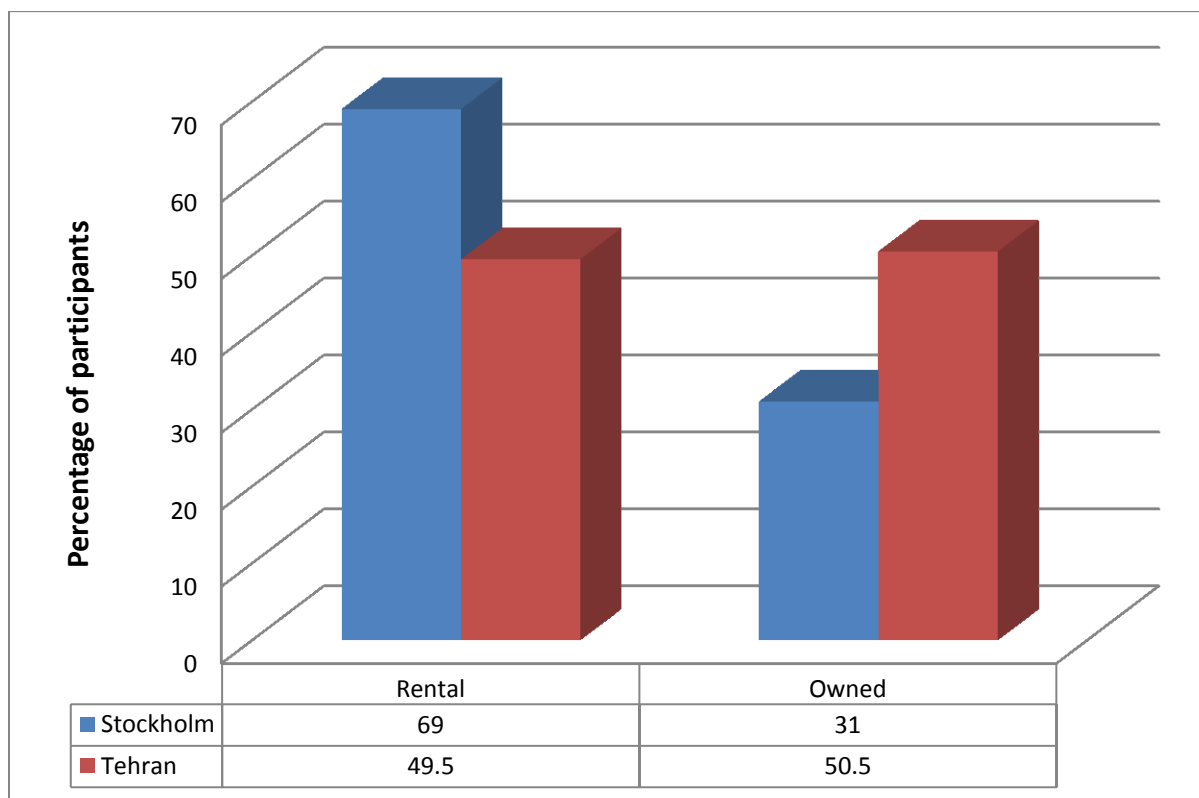


Figure 113: Living Place status of participant's distribution in two selected site

10.12.12. Local or Passer-by and Duration of residence:

The next table (Table 86) analyzes the distribution by locality or if yes duration of residence of our participants

Stockholm: Statistical indicators show that the average number of years respondents have lived in this area was 6 years.

Tehran: Results indicate that the majority of respondents (78%) have stated that they are living in the area. Statistical indicators show that the average number of years respondents have lived in this area is 8 years.

Table 86: Local or Passer-by Distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Inhabiting	71	71	155	77.5
Passer-by	10	10	16	8
Missing data	19	19	29	14.5
all	100	100	200	100

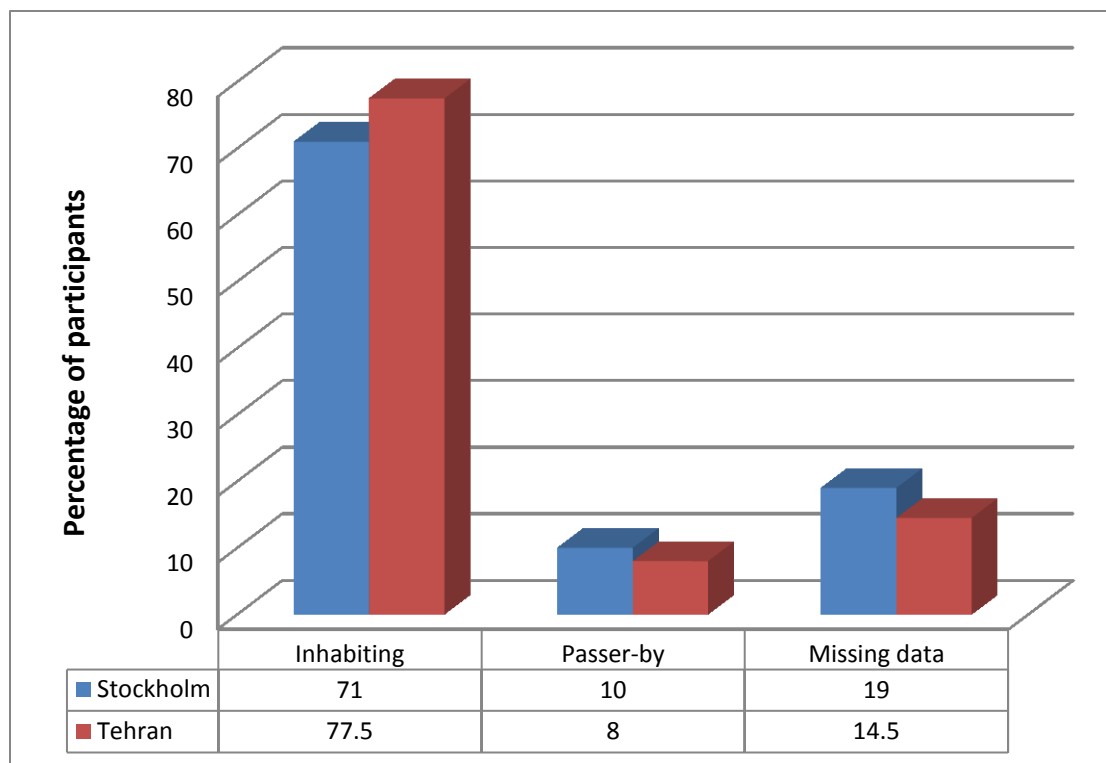


Figure 114: Local or Passer-by Distribution of participants in two selected site

*I selected most of the people who resident in those areas, not just random pedestrians.

Other Results:

10.12.13. Type of Crime:

Stockholm: The following table (Table 87) shows the majority of respondents (67%) have stated that there was no crime in their neighborhood.

Tehran: The results shows that over a third of respondents (33.5%) have expressed that there was a theft in the area.

Table 87: Type of Crime Distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Accident	0	0	27	13.5
Rubbery	21	21	67	33.5
Drug Dealing	6	6	38	19
Street fights	6	6	32	16
Murder	0	0	3	1.5
None	67	67	33	16.5
All	100	100	200	100

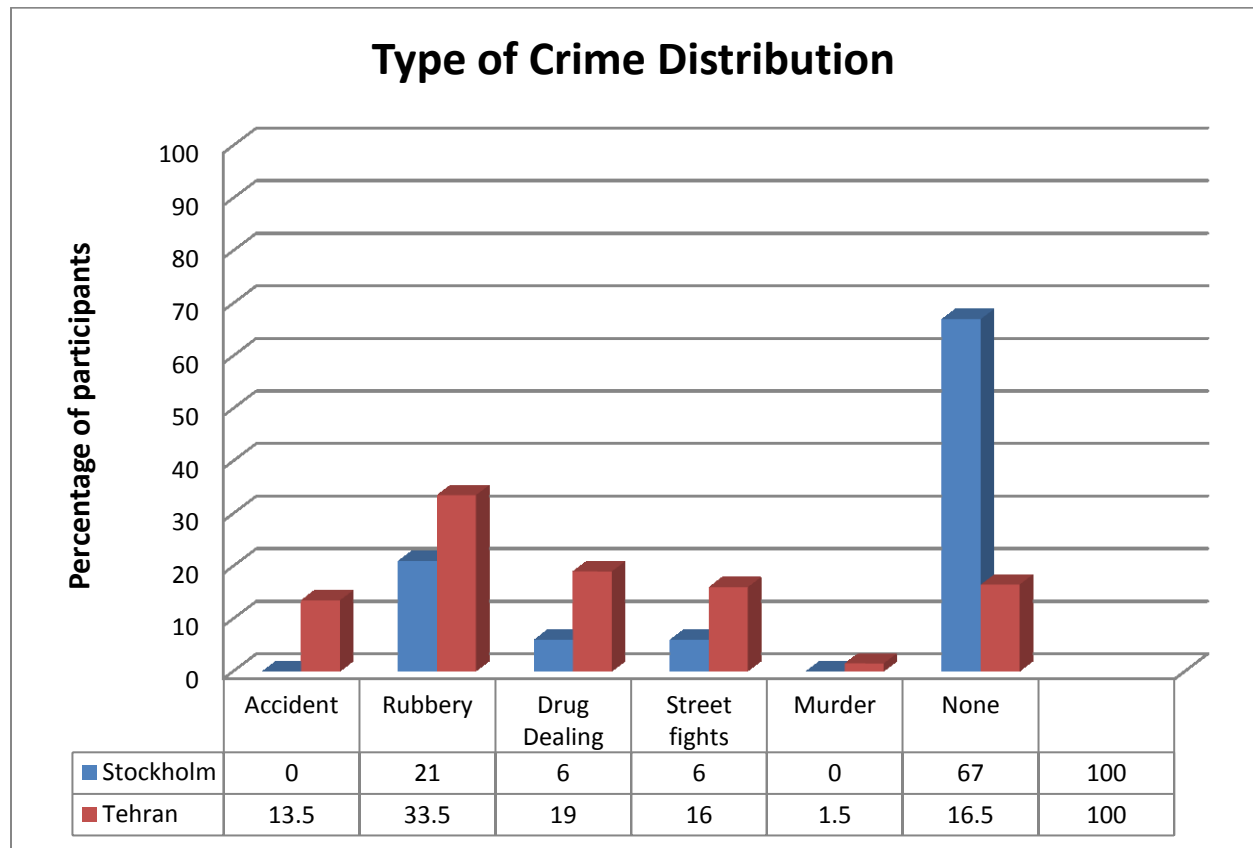


Figure 115: Type of Crime Distribution

10.12.14. Fear factors:

Stockholm: The following table (Table 88) shows that more than half of respondents (55 percent) felt more fear when they are holding cash.

Tehran: The findings indicated that 42 percent for holding cash, 38 percent for parking their cars on the street and 19% if they walk alone felt fear.

Table 88: Fear factor Distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Holding cash	55	55	85	42.5
Parking car on the street	7	7	77	38.5
Walking alone	38	38	38	19
All	100	100	200	100

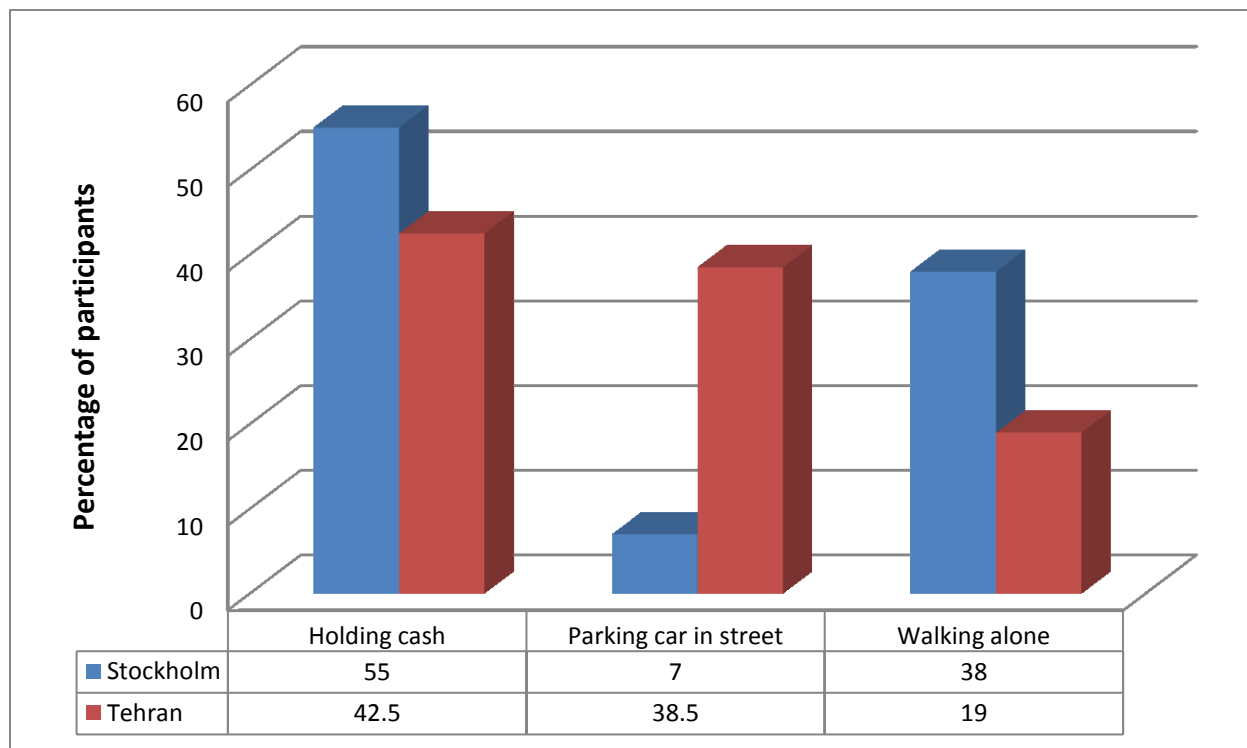


Figure 116: Fear factor Distribution

10.12.15. Fear of crime amongst men and women:

Stockholm: The results show (Table 89) that the majority of respondents (89%) have stated that women more than men were afraid of crime.

Tehran: The results suggests that the majority of the respondents (92%) had stated that women more than men were afraid of crime.

Table 89: Fear of crime amongst men and women distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Women	89	89	183	91.5
Men	11	11	17	8.5
Sum	100	100	200	100

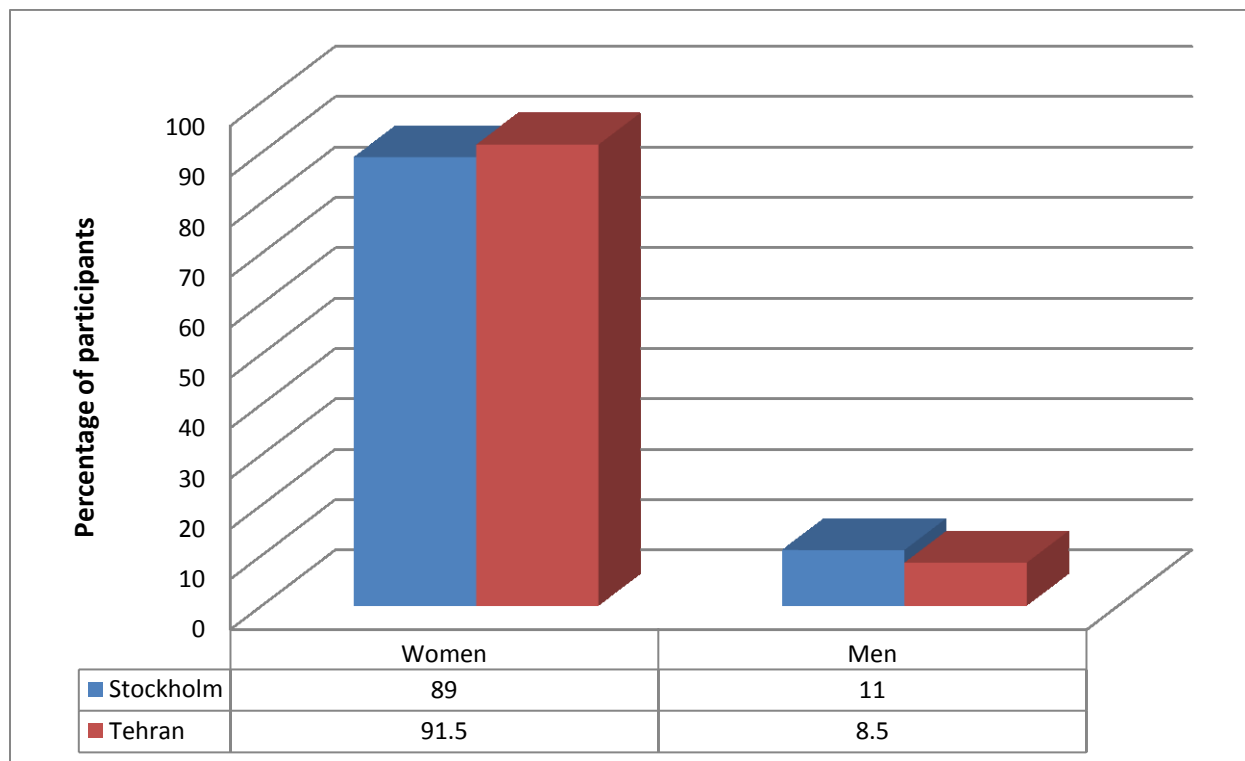


Figure 117: Fear of crime amongst men and women distribution

10.12.16. Being a subject of Crime:

Stockholm: The following table (Table 90) shows that the majority of respondents (61%) have stated that more women than men were subject to a crime.

Tehran: The results show that the majority of respondents (77%) have stated that more women than men were subject to crime.

Table 90: Being subject of a crime Distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Women	61	61	154	77
Men	39	39	46	23
Sum	100	100	200	100

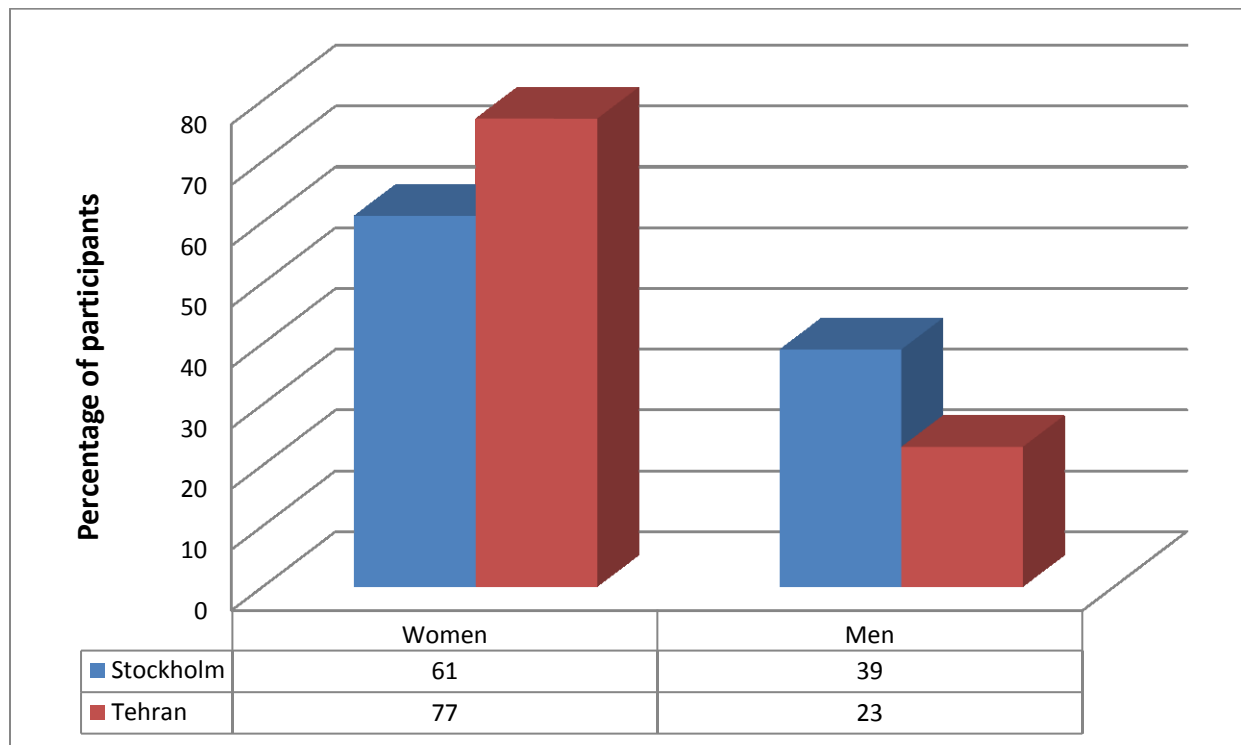


Figure 118: Being subject of a crime Distribution

10.12.17. Probability of incident (Day/Night):

Stockholm: The following table (Table 91) shows that respondents who responded to this question had stated that incident happened for them during night time rather than day time.

Tehran: The respondents who responded to this question had stated that incident happened over night more than day time.

Table 91: Experienced crime (day/night) distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Day	17	17	42	21
Night	10	10	32	16
Missing data	73	73	126	63
Sum	100	100	200	100

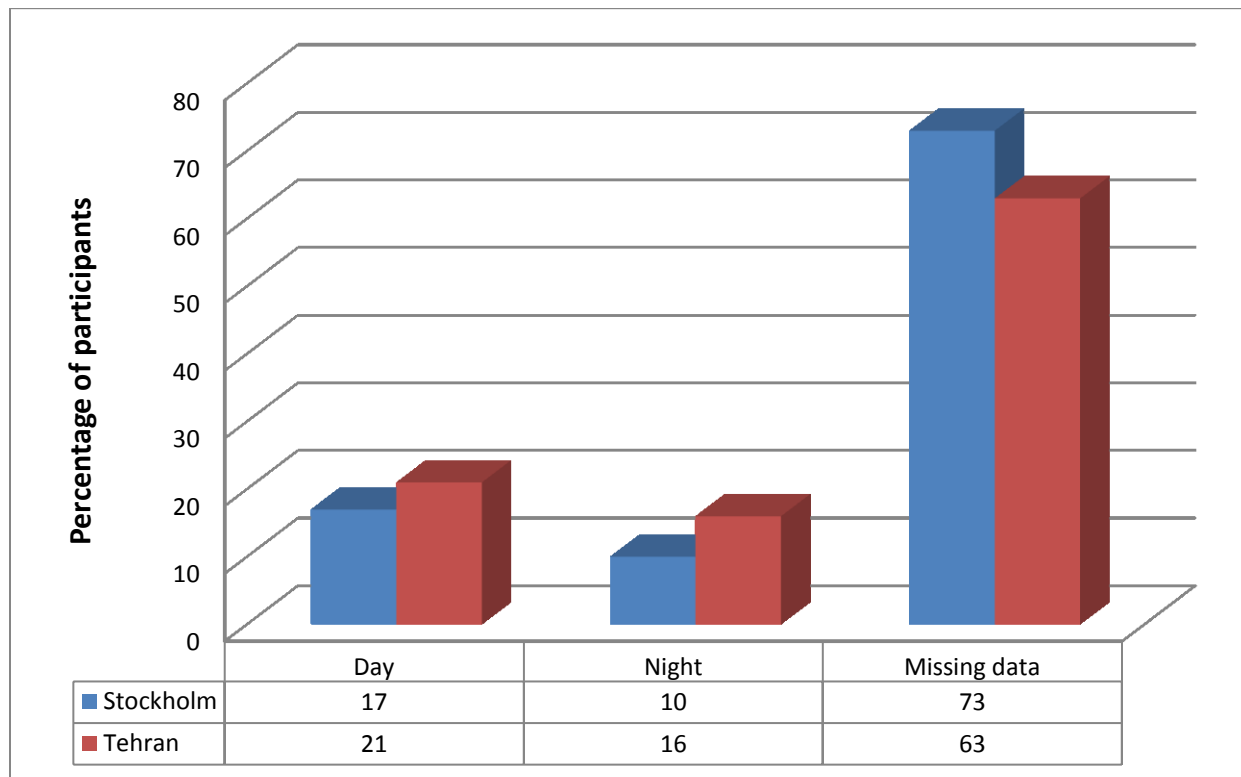


Figure 119: Experienced crime (day/night) distribution

10.12.18. Status of having an incident (Alone / Accompanied):

Stockholm: The following table (Table 92) shows that respondents who responded to this question had stated that incident happened for them when they were alone.

Tehran: The respondents who responded to this question had stated that incident happened when they were alone.

Table 92: Experienced Crime (Alone / Accompanied) distribution

Description	Stockholm	Stockholm%	Tehran	Tehran%
Alone	19	19	51	25.5
Accompanied	8	8	13	6.5
Missing data	73	73	136	68
Sum	100	100	200	100

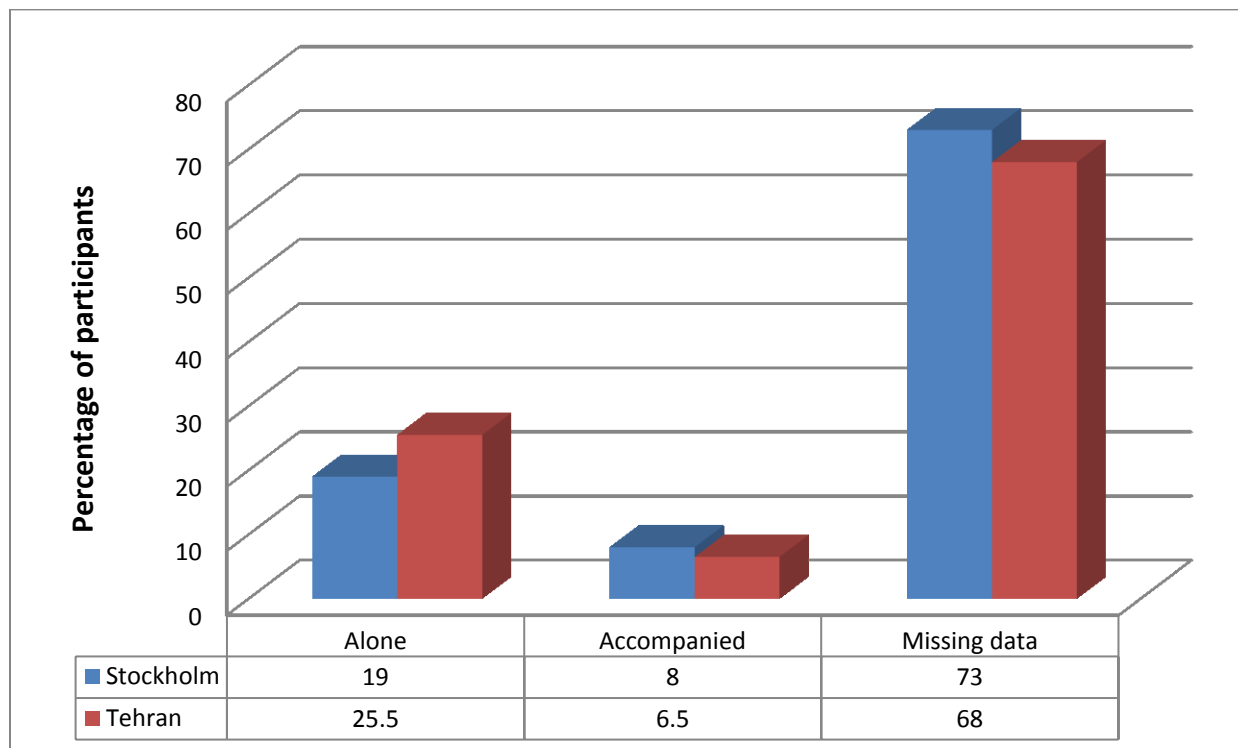


Figure 120: Experienced Crime (Alone / Accompanied) distributions