FACTORS INFLUENCING SENSE OF SECURITY IN RESIDENTIAL NEIGHBOURHOOD IN JOHOR BAHRU

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Who, being loved, is poor?”

Oscar Wild

Dear Mom & Dad,
My Darling little sisters

Without you my world is meaningless
IN THE NAME OF ALLAH, MOST GRACIOUS, MOST COMPASSIONATE

I would like to acknowledge my advisors, Professor Dr. Hasanuddin Bin Lamit, for his astute and expert editing. I would like to express gratitude for their patience, generosity and collaboration.

“Wise father, amiable mother, sweet sisters”

Thank you for your perpetual encouragement and support. Your unwavering love that have shaped my mind and opened the doors of opportunity leading me to become the person I am today. Also I extend my thanks to my father, mother, and my sisters in law, for their charming support.

I would like to thank all of the individuals who have helped me during my thesis study.
Sense of security or the lack of it is increasingly becoming one of the main social issues in modern residential neighbourhoods. This research aims to investigate and evaluate the factors influencing sense of security in residential neighbourhoods of Johor Bahru. It also examines the effect of residential neighbourhood’s distance from the city centre on resident’s sense of security. A questionnaire survey was undertaken as a primary data collection tool. The data were analysed with SmartPLS and SPSS softwares. The SmartPLS was used to evaluate the research questions and construct the research model. Results revealed the appropriateness of designed research model by approving 16 relationships among the research factors. In addition, the research factors associated to economic and demographical background of the research respondents were examined by using SPSS software. The analyses showed the effect of gender, age, income and the distance of selected research study areas (Taman Abad and Taman JP Perdana) to central part of Johor Bahru on sense of security. Finally, the results revealed that residents of residential neighbourhood closer to the city centre feel more insecure compared to residents in farther residential neighbourhoods. The results also revealed that females feel less secure compared to male residents. The sense of insecurity was higher within the higher age groups (50 years and above). Moreover, higher income groups (RM10000/month and above) feel less secure comparing to the residents in lower income groups (below RM1000/month). Urban designers and architects can use the aforementioned results to improve the sense of security in residential neighbourhoods of Johor Bahru by considering the distance of residential neighbourhoods to urban centres and the social composition of residents in terms of gender, age and income status. In closing, the results of this research generally can be helpful in improving the overall quality of life and sense of security in residential neighbourhoods of Johor Bahru.
ABSTRAK

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<tr>
<td>GIS</td>
<td>Geographic information systems</td>
</tr>
<tr>
<td>PLS</td>
<td>Partial Least Squares</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for the Social Science</td>
</tr>
<tr>
<td>SAS</td>
<td>Statistical Analysis System</td>
</tr>
<tr>
<td>PCA</td>
<td>Principal component analysis</td>
</tr>
<tr>
<td>R2</td>
<td>$R^2$</td>
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<tr>
<td>SEM</td>
<td>Structural equation modeling</td>
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<tr>
<td>CFA</td>
<td>Confirmatory factor analysis</td>
</tr>
<tr>
<td>AVE</td>
<td>Average variance extracted</td>
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<tr>
<td>CR</td>
<td>Composite reliability</td>
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<tr>
<td>VFPIBT</td>
<td>Majlis Bandar Johor Bahru Tengah</td>
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<tr>
<td>PBTPG</td>
<td>Perjabat Pusat Bandar Tempatan Pasir Gudang</td>
</tr>
<tr>
<td>MDK</td>
<td>Majlis Bandar Kulai</td>
</tr>
<tr>
<td>MBJB</td>
<td>Bandar Nusajaya. and Majlis Bandaraya Johor Bahru</td>
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<tr>
<td>MSC</td>
<td>Multimedia Super Corridor</td>
</tr>
<tr>
<td>SJER</td>
<td>South Johor Economic Region</td>
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<tr>
<td>SQLI</td>
<td>Social and Quality of Life Index</td>
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<td>NAPIC</td>
<td>National Property Information Centre</td>
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<td>CMV</td>
<td>Common method variance</td>
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LIST OF SYMBOLS

$n$ - Sample Size

$Z$ - Z Statistic (Z): For the Level of Confidence of 95%, which is Conventional

$\sigma$ - The population variance

$e$ - Precision

$r$ - Correlation

$N$ - The number of questions

$S_{i}^{2}$ - The variance of individual questions (or parts)

$S_{x}^{2}$ - The variance of the whole test

$\alpha$ - Sense of Security’s coefficient

$\beta$ - Physical Participation’s coefficient

$\gamma$ - Neighborhood Incivilities’ coefficient

$\delta$ - Physical Environment’s coefficient

$F1$ - Sense of Security

$F2$ - During The Day
| F3  | - | During The Night |
| F4  | - | Physical Participation |
| F5  | - | Neighbourhood Incivilities |
| F6  | - | Physical Environment |
| F7  | - | Natural Surveillance |
| F8  | - | Victimization Experience |
| F9  | - | Walk-Ability |
| F10 | - | Casual Interaction Between Neighbours |
| F11 | - | Social Cohesion |
| F12 | - | Appearance |
| F13 | - | Building Design |
| F14 | - | Street Lighting |
| F15 | - | Fear of Crime |
| F16 | - | Disturbance By Neighbours or Youngsters |
| F17 | - | Perception of Incivilities |
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CHAPTER 1

INTRODUCTION

1.1 Background of Study

According to Oxford dictionary, security is defined as the state of feeling safe, stable and free from fear or anxiety. In addition, it refers to a condition with the lack of existing and perceived risks to the security for each group or individual. In some cases security refers to when people are in an endurable condition. Being secure and feeling secure are the issues when scholars talk about security. A place has sense of security when people do not feel vulnerable to any threats or risks in the society. Sense of insecurity, crime, antisocial behaviors and disorder affect neighborhoods directly. Moreover, residents’ sense of insecurity and the existing crime in the neighborhoods are the main reasons for reducing the attraction of neighborhoods for living, working or visiting (Teck-Hong, T. (2011)).

The main goal of this research is conducted in terms of understanding the most significant factors of sense of security affecting residential neighbourhoods of Johor Bahru.

According to Ditton and Innes (2005), different social groups’ interpretation of security is the main factor for introducing and designing the interventions in enhancing neighborhoods’ security. In effect, managing the people’s impressions about their neighborhoods and what they see and feel when they are in the
neighborhoods, is a vital component due to improve sense of security (Ditton and Innes 2005).

1.2 Problem Statement

Worldwide concern about population growth and rapid urbanization will continue to address crime and sense of insecurity as social problems. The design of buildings and the arrangement of streets and other outdoor spaces can influence crime and level of sense of insecurity. Several studies related to sustainable development define it as reflecting a tension between economic activities and the environment. Evidence suggests that reducing crime and sense of insecurity can improve the quality of life that is an essential factor in producing developments that are more sustainable. In light of the population growth and rapidly urbanization advances all over the world, sense of insecurity and its related issues such as crime and so on has become one of the most serious social problems. In fact, governments and other authorities are trying to overcome this phenomenon by investing a lot of money as in prevention measures. However, this problem is still unresolved as insecure condition in residential neighborhoods and crime rates around the globe continue to escalate. Tackling and reducing the negative impacts of sense of insecurity on human life will inevitably lead to greater regulations and further invite more participation of both the individuals and the community (Marzbali, M. H., Abdullah, A., Razak, N. A., & Tilaki, M. J. M. (2011)).

The most prominent underlying reasons why house buyers in Malaysia want the gated and guarded property is because of the status symbol that goes along with owning a home that is protected and secure (Tan, 2010).

One of the main characteristics of the gated-guarded landscape compound neighborhood is the added security features. Snatch thefts, assaults and rampant break-ins in Malaysian urban areas make house buyers a little more concerned about
their personal security. House buyers generally are willing to pay more to live in this neighborhood because of the security provided by security guards. Better security measures could instill a sense of trust and peace of mind amongst the residents (Teck-Hong, T. (2011)).

Designers and other design professionals should take into consideration the surrounding environment in order to reduce or enhance security rates. The design of buildings and the arrangement of streets, public facilities and other outdoor spaces can affect the opportunity of crime and the level of sense of security. Cozens, Saville and Hillier (2005, p. 343) defined a sustainable community as “secure, perceives itself to be secure and is considered by others to be secure”. However, both sustainability and security are two important factors to be considered during the design process. Sometimes these two elements complement each other. In light of these considerations, mitigating crime and sense of insecurity may improve the quality of human life (Crowe (2000) and Schneider & Kitchen (2002)) which is a basic human need. Safety and security have always been major human needs throughout history (Cozens, 2007a, 2008). Maslow (1970) proposed that the hierarchy of the most basic human needs includes five levels where security needs is at the second level after physiological needs. The organizations of fortifications for castles such as defensive walls, landscaping and moats, which were developed during the Middle Ages, have always, tended to protect occupants from various threats (Cozens (2008) and Schneider & Kitchen (2002)). It is, indeed, an essential task to produce developments that are sustainable. Evidence suggested that integrating physical security in a project from the start rather than modifying it at a later stage can decrease design costs in the long-term (Crowe (2000) and Neill, Rueda, & Savage (2009)). Blunkett, D. (2004) interpreted the improvement of the security as fundamental factor of the new labor project and broader civil renewal. He highlighted that:

Security plays a key role for everything that people do in the society. Therefore, communities can be strengthening, more confident and creative of
responsibility for people for their own lives and well-being by improving more secure societies (Blunkett, D. (2004)).

Therefore, architects, designers and planners should consider security attributes in new developments at the planning and design stage. To do so, this research aims on considering the most effective sense of security factors on residential neighborhoods of Johor Buhro.

1.3 Research Questions

To address the aim of this research the following questions are identified:

Q.1: What are the factors that influence the sense of security in neighborhoods?

Q.2: How is the hierarchy of the sense of security factors influencing Johor Bahru residential neighborhoods? (Establish the levels of relationship of factors).

Q.3: Does the effect of the factors of sense of security differ between diverse demographical backgrounds of Johor Bahru residential neighborhoods?

Q.4: Does the effect of the factors of sense of security differ between diverse socio-economic backgrounds of Johor Bahru residential neighborhoods?

Q.5: Does the effect of the sense of security factors differ between different distances of residential neighborhoods to the central part of Johor Bahru?
1.4 Aim and Objectives

This study aims to ‘consider the factors influencing sense of security in residential neighborhoods’ of Johor Bahru. To address the aim following objectives are identified:

Obj.1: To examine the factors influencing sense of security in residential neighborhoods.

Obj.2: To conduct the hierarchy of the sense of security factors influencing Johor Bahru residential neighborhoods.

Obj.3: To examine the effects of sense of the security factors in terms of diverse demographical backgrounds of Johor Bahru residential neighborhoods.

Obj.4: To consider the effect of sense of the security factors in terms of diverse socio-economic backgrounds of Johor Bahru residential neighborhoods.

Obj.5: To address the effect of urban neighborhoods’ distance to the central part of Johor Bahru in reducing / increasing sense of security.

1.5 Scope of the Study

a) Establish theoretical framework on factors influence the sense of security. This will be based on literature review, analysis and discussion with experts.
b) Johor Bahru city is undertaken as case study for this research to examine how the sense of security influences urban neighbourhoods. Johor Bahru, the capital city of the state of Johor, has its area defined within the Inner Ring Road-1124.97 areas of land extending from the inner ring road to Jalan Abu Bakar - Jalan Tun Dr Ismail. Its dense development and clearly by defined streets, make up of major and minor roads, that leads to the Johor Bahru waterfront is accessorized with high commercial and government institutional activities. Regarding the aim of this research, Johor Bahru residential neighbourhoods located at the Malaysia are south as the scope of this research.

c) Compare the importance of sense of security factors between residential neighbourhoods and background of residents.

1.6 Theoretical Framework

Theatrical framework considered the methods approaches associating with the objectives of this research. To do so, the following charts are developed as guidance for the methodology section.
Objective 1: To examine the factors influencing sense of security in residential neighborhoods

Factors Influencing Quality of Life in Residential Neighborhoods

Content Analysis


Sense of Security (One of the Most Important Factor)

Factors Influencing Sense of Security in Residential Neighborhoods

Content Analysis

Ground Group Decision Making Analysis (GGDM)

(1) Physical Participation (Walkability, Casual interaction between neighbors, Social Cohesion and Time of Day)
(2) Neighborhood Incivilities (Fear of Crime, Perceptions of Incivilities and Disturbances by neighbors or youngsters)
(3) Physical Environment (Appearance, Building design, Street Lightings, Natural surveillance)
(4) Demographic Factors (Gender, Age, Socio economic status, Education and Educational status)
(5) Victimization Experience Serious crimes known as: (Murder, Non-negligent manslaughter, Forcible rape, Robbery, Aggravated assault, Burglary, Larceny-theft and motor vehicle theft people get attacked or Physically Injured)

Figure 1.1 Factors Influencing Sense of Security Diagram
Objective 2: To conduct the hierarchy of the sense of security factors influencing Johor Bahru residential neighborhoods

- Content Analysis → Sample Questionnaire → Pilot Test (60 participants) → Ground Group Decision Making Analysis (GGDM)

- Validity and Reliability Analysis (Smart PLS) → Convergent validity and discriminant validity → Composite Reliability and Cronbach’s Alpha

- Survey Questionnaire Design → Survey Questionnaire Distribution (190 participants) → Convergent validity and discriminant validity → Validity and Reliability Analysis (Smart PLS)

- Research Model Designing → Constructs Relationship Testing → Path Coefficient among Constructs

Conducting the Research Constructs’ Hierarchy

**Figure 1.2** Research Constructs’ Hierarchy Diagram
Objective 3: To examine the effects of sense of the security factors in terms of diverse demographical backgrounds (e.g. Age and Gender) of Johor Bahru residential neighborhoods.

(1) **Physical Participation** (Walkability, Casual interaction between neighbours, Social Cohesion and Time of Day)
(2) **Neighbourhood Incivilities** (Fear of Crime, Perceptions of Incivilities and Disturbances by neighbours or youngsters)
(3) **Physical Environment** (Appearance, Building design, Street Lightings, Natural surveillance)
(4) **Demographic Factors** (Gender, Age, Socio economic status, Education and Educational status)
(5) **Victimization Experience** Serious crimes known as: (Murder, Non-negligent manslaughter, Forcible rape, Robbery, Aggravated assault, Burglary, Larceny-theft and motor vehicle theft people get attacked or Physically Injured)

Independent T-test and One-Way ANOVA Analysis (SPSS Software)

Figure 1.3 Research Constructs Differences in Terms of diverse demographical backgrounds

Objective 4: To consider the effect of sense of the security factors in terms of diverse socio-economic backgrounds of Johor Bahru residential neighborhoods.

(1) **Physical Participation** (Walkability, Casual interaction between neighbours, Social Cohesion and Time of Day)
(2) **Neighbourhood Incivilities** (Fear of Crime, Perceptions of Incivilities and Disturbances by neighbours or youngsters)
(3) **Physical Environment** (Appearance, Building design, Street Lightings, Natural surveillance)
(4) **Demographic Factors** (Gender, Age, Socio economic status, Education and Educational status)
(5) **Victimization Experience** Serious crimes known as: (Murder, Non-negligent manslaughter, Forcible rape, Robbery, Aggravated assault, Burglary, Larceny-theft and motor vehicle theft people get attacked or Physically Injured)

One-Way ANOVA Analysis (SPSS Software)

Figure 1.4 Research Constructs Differences in Terms of diverse demographical backgrounds
1.7 Significance of the Study

In terms of human needs, Maslow’s hierarchy suggests sustainable environments should cater for psychological needs, safety and security, affiliation (belonging and acceptance), esteem (status) and self-actualization (expression and fulfilment) (McLeod, S. (2007)). It is suggested to create comfortable environments that are of human scale and visually interesting, that allows secure and crime-free human contact, movement and navigation (legibility), that are socially mixed, and that through their design and the disposition of uses are available to all (Carmona, M. (Ed.). (2010)). Since the 1970’s it has been noted that certain architectural and planning designs have unintentionally created environments that provide greater opportunities for crime to be committed. To be known as the first generation crime prevention through environmental design (CPIED), this approach focused entirely on
the rational offender, who calculate the potential risks and rewards before committing a crime.

In addition, quality of life based on various demographic and socio-economic situations is influenced by sense of insecurity as important social issue (Franklin et al 2008). Many researches revealed that the definition of sense of insecurity is synonymous with the perception of safety (Baba, Y., & Austin, D. M. (1989)) and others specify the direct relationship between sense of security and quality of life (Michalos, A. C., & Zumbo, B. D. (2000)). Other research defines sense of insecurity as feeling or emotion of fear which comes from the expectation of danger (Ferraro, K. F. (1995), Mark Weir, quoted in Kohm, S. A. (2009)). On the other hand, Karakus et al (2010) argued that sense of insecurity comes from people’s reaction to the probable perception of victimization (Karakus, O., McGarrell, E. F., & Basibuyuk, O. (2010)). Moreover, sense of insecurity can affect residents’ quality of life more than actual experience of them in residential neighborhoods (Pain 2000 quoted in Wood, L., Shannon, T., Bulsara, M., Pikora, T., McCormack, G., & Giles-Corti, B. (2008)). Therefore, people perception of security, which comes from built environment situation, has a direct relation to the sense of insecurity.

Meanwhile, less academics or practitioner paid attention to sense of security among residents of Johor Bahru residential neighborhoods. Therefore, investigating in aspects, ecological, social, economic and geographical in the Johor Bahru neighborhood at the same time is the aim of this study. It is expected to expand the understanding of more secure communities can be adapted to any other residential neighborhood.
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