END-USERS’ PERSONALIZATION POTENTIALS AND FACTORS TOWARDS EFFECTIVE HOUSING OCCUPANCY

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With much love, I dedicate this thesis to my late Father Mallam Isa, for encouraging and instilling in me a sense of perseverance and focus, also my late brother, Mallam Alhassan (May their souls rest in eternal peace) and I thank my mother Mallamah Adisetu, for her support and encouragement, who witnessed the successful completion of this study. Also to Late Prof. M. I. Onogu may you rest in peace: Amin.
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Developing countries commonly incorporate strategies for growth involving smooth transformation agendas, particularly, with respect to housing occupancy. Occupancy issues among low and middle income earners posed challenges to housing development, despite huge investments and regulation by governments in providing quality housing for the citizens. Moreover, there still exist problems of effective housing occupancy with the low and middle income earners. Also, non-occupancy of developed houses in the Malaysian context further compounded these challenges. Therefore, this study investigated end-users’ personalization potentials and factors contributing to efficient housing occupancy. These factors were sourced through literature review, policy documents along with experts’ opinions till consensus was reached. Thereafter, an instrument based on Structural Equation Model (SEM) was designed and administered to a total of 247 respondents. Subsequently, the inter-relationships between and within these factors were fully investigated and validated towards developing an effective integrated Housing Occupancy Model (HOM). The five consensus factors are satisfaction, environmental condition, subjective norm to occupancy, attitude towards occupancy and personalization. The Goodness of Fit statistics from the SEM showed that four out of seven investigated inter-relationships were supported, directly and positively related. While one of them, is supported, but negatively related; whereas the remaining three were not supported. The validation of the integrated HOM was similarly achieved through these findings. Furthermore, the findings showed that both satisfaction and attitude towards occupancy were separately and directly related to housing occupancy. Consequently, personalization is directly related to satisfaction. However, personalization is indirectly related to housing occupancy through satisfaction. Additionally, environmental condition and subjective norm to occupancy were separately not related, whereas attitude towards occupancy is also not related to subjective norm to occupancy. The outcome of this HOM will help in effective public housing delivery and occupancy among the income earners. In addition, it would be beneficial to policy makers, academicians and professionals in arriving at sustainable housing decisions relating to occupancy issues in Malaysia. The integrated HOM provides better understanding of these occupancy issues to the stakeholders.
ABSTRAK

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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Many developing nations have made several efforts in providing adequate housing for their citizens (Kolocek, 2013). However, some of these houses are faced with different restrictions centered on occupancy and non-occupancy by the intending users (Wilson, 2014). Therefore, the rate at which the people occupy these houses been provided reflects its effectiveness. Similarly, effective occupancy implies users’ satisfaction (Nour, 2011). As such, housing occupancy is essential for ensuring adequacy of human shelter and values. Consequently, Non-occupancy of housing discourages the housing providers’ effort, which may lead to the deterioration of the value of the building and therefore reflects on the image of the nation’s living and environmental conditions. The achievement of adequate housing cannot be successful without addressing the housing occupancy situation.

The provision of adequate and affordable housing, particularly in developing countries, is faced with several challenges including affordability, housing supply shortages, lack of responsible and effective support, rescue, monitoring practices and expert knowledge on long-term funding (CIB, 2014; UN-Habitat, 2000). Those that are mostly affected are the low and middle income working households mostly as a result of inadequate housing which usually causes a hike in the rental price of these houses and consequently out of reach or unaffordable to the low and middle income earners in most of the developing countries (Mayor, 2014; UN-Habitat, 2006). In addition, “adequate housing” must make provision at a
minimum for the followings: tenure security, users’ participation in housing-related decision-making at national and community level. Housing is adequate if the occupants are guaranteed legal protection against eviction, threats and harassment. Similarly, if they have access to good and safe drinking water, satisfactory sanitation and refuse disposal; it should guarantee reasonable space and physical safety from structural hazards and respect for cultural identity (UN-Habitat, 2007a, 2014). Developing countries are mostly faced with shortage issues whereas in developed countries, the cost of housing is usually beyond the incomes (RICS, 2014; UNCHS, 1995).

According to Mohit et al. (2010) the rate at which the users can afford the housing will also reflect their satisfaction. In addition, housing satisfaction comprises of the quality of the building and the safety attached. However, dissatisfaction in the quality of housing facilities, amenities and design affect users’ occupancy. Accordingly, Colesia and Alpopi (2011) argued that the performance of housing, its quality and facilities can affect the users’ quality of life and encourage satisfaction. Therefore, buildings are needed to provide occupants with activities ranging from sleeping, study, work, household life and leisure through communal interactions. For this to be achieved, buildings are planned, designed, managed and constructed using specifications and standards recognized by professionals, governments and experts with adequate knowledge of expectations and the needs of the users’ (Ibem et al., 2013). This cannot be achieved without the involvement of the project users’.

Public housing is rental/owner occupier housing created to provide safe and affordable habitation for low-income earning families, the elderly and people with disabilities (Hryshko et al., 2010; UN-Habitat, 2007b). The importance of housing provision effectiveness lies in its affordability. Lubell et al. (2007), suggested that the stability of affordable housing or house rentals could have profound effects on childhood development. Consequently, affordability is an essential feature of housing delivery. According to a resolution passed by American Bar Association and adopted by the house of delegates in August, 2013 stated “That the American Bar Association urges governments to promote the human right to adequate housing for all through increased funding, development and implementation of affordable housing strategies and to prevent infringement of that right”.
The Malaysian government has for the past 23 years witnessed various problems in their housing policy implementation especially in the recent Five-Year Malaysia Housing Scheme (Tan, 2011). Tan (2011), identified certain factors as critical success factors that must be considered for an achievable and sustainable housing policy implantation. They include social acceptability, economic and technical feasibility. Therefore, the availability, affordability and adequacy of quality housing provision for low income categories of all salary levels, is the Malaysia government housing policy target.

Despite research efforts in housing occupancy, there are still substantial areas that are yet to be addressed in the domain of housing occupancy. One of such areas is the involvement or participation of the intending user in housing provision policies Shuid (2010). He suggested the need to consider users’ views and right from the initiation stage of housing development, as an important influence for housing occupancy sustainability. Ben O’Callaghan et al. (2012), posits that occupants attitude towards the environment should be used to assess and understand their behaviour towards sustainable housing. The challenges of housing non-occupancy in Malaysia housing system, from the statistics of Ministry of Housing and Local Governments (MHLG, 2011), indicate a significant number of non-occupied houses.

Most reviewed literatures progressively investigated under Malaysia housing provision and delivery has no considerations for the decision support aspects, which is particularly based on the framework of multi-diversity assessment and analysis. Housing provision is a capital intensive venture that requires a minimum of five years to recover the money invested and as such, should be acquired or rented even before the houses are fully developed for any developer to strike a balance and for investors to be encouraged to invest. Therefore, no investor or developer will invest such huge amount in housing provision without it being occupied effectively. In Johor state, Malaysia for example, statistics show that 974 houses are vacant; this is 14.4% of non-occupied houses (MHLG, 2011). This work therefore, seeks to identify the way forward on enhancing the optimum quality for houses to be occupied.
1.2 Research Problem

The Malaysia government’s goal of providing adequate public housing as targeted by its housing policy is yet to be fulfilled (Shuid, 2010). Similarly, the available public housing units provided by Malaysia government has not been effectively occupied by the expected public users. Also, it has been reported that of a total of 6,784 public housing units developed in Johor Bahru (Malaysia) as at September, 2011, only 5,810 are occupied leaving 974 unoccupied housing units amounting to 14.4% (MHLG, 2011). To a developer, this number is not encouraging given the huge amount of investment involved. However, this seems to have long been a major issue to the federal government of Malaysia. In a bid to address this challenge, the Malaysia government decided to involve private participation in public housing development from the 1970s to 1990s as a way of developing effective occupancy and housing delivery (Idrus and Ho, 2008). This however did not address the issue of non-occupancy as expected.

Putnam (1993) and Craig (2005) have both posited that public participation in community development projects and schemes as aspect of social networking will assume a norm of mutuality and trust in their development outcome. Buckwalter et al. (1993), stressed that such social trust of participation resulted to what was termed democratic society. A democratic society establishes democratic projects, and democratic projects enjoy participants’ trust and patronage. Similarly, Craig (2005), emphasized that participatory social trust encourages and facilitates collective action. This study acknowledges the subsequent efforts of Malaysia government in public housing delivery to eradicate the persistent non-occupancy problem in public housing provision in Malaysia. Low public participation in public housing has been identified in previous literature (Anuar and Saruwono, 2013; Bass et al., 1995; Cash et al., 2003; Rashid and Wong, 2010). In other words, to create sustainable communities, the local citizens should be allowed to examine their own problems and resolve solutions (Doelle and Sinclair, 2006). Similarly, community initiatives should allow the end users to be the instruments of their change. According to Loures and Crawford (2008), a sustainable practice in planning and management of physical environment is as a result of public participation.
Folaranmi (2012), observed the need for prospective house owners to be allowed to participate in housing design regardless whether it is mass housing or not. In addition, Mohlasedi and Nkado (1997) and Sue (2005) also noted that end-users participation in Malaysia housing delivery system is at a minimal level. In the context of this work, personalization is used for participation thus theory of participation is addressing personalization. This study therefore identified the study problems as the lack of users’ participation and occupancy in Malaysia public housing is a major hindrance to the development of effective housing occupancy.

1.3 Research Gap

The issue of integrating housing occupancy model in Malaysia is a problem which has not been considered by any research work and it has not been addressed in any known literature as predictable. According to MHLG (2011), statistics show fourteen point four percent (14.4%) representing, nine-hundred and seventy four (974) vacant houses in Johor-Bahru despite investing huge amount of money for such development. In the works of RICS (2014) and UNCHS (1995) developed countries housing cost is usually beyond affordability of the low and middle income groups.

Malaysian end-users have not been participating in housing delivery process (Mohlasedi and Nkado, 1997; Sue, 2005). Therefore, dearth in literature and lack of users’ personalization in Malaysia housing delivery is a limitation to effective housing occupancy. For this reasons, the following problems will be discussed in detail in the subsequent subsections: Non-occupancy, lack of users’ attitude and willingness to participate, users’ attitude towards occupancy, users’ subjective norm to occupancy and negative environmental impact.
1.4  **Research Aim**

The aim of this research is to investigate and determine the factors which influence human personalization behaviour towards effective occupancy among Malaysian prospective house owners.

1.5  **Research Questions (RQs)**

Below are four main research questions. Research question three has seven sub-research questions:

- **RQ1**  Which of the factors contribute to the present non-occupancy?
- **RQ2**  How will these conceptualized factors influence the Malaysian prospective house owners?
- **RQ3**  What is the influence of each of the factors on housing occupancy?
- **RQ4**  Can the developed housing occupancy model (HOM) for users be justified?

1.6  **Research Objectives**

The objectives actualizing this aim are listed hereunder:

- **RO1.**  To establish the factors that contributes to the present non-occupancy in the study area.
- **RO2.**  To determine the contributing influence of these factors for the prospective house owners in Malaysia.
- **RO3.**  To unravel the influence of each of the factors on housing occupancy in the study area.
- **RO4.**  To justify the developed Housing Occupancy Model (HOM) for the
1.7 **Significance of the Research**

i. This research is based on actual housing issues that will encourage effective occupancy of housing and strengthen strong commitment, belongingness and satisfaction of users in mass housing scheme.

ii. The research will be beneficial to the housing industries, inclusive of policy-makers, managers, developers, architects, academicians and professionals.

1.8 **Methodology Outline of the Research**

This research problem of statement outlined and the objectives set out to achieve factors contributing to the present non-occupancy and their effects on prospective public house owners. Housing occupancy and participation potentials are required in achieving the aim of this research work, position the study as a mix-method research measurement. Consequently, these factors were considered in data collection and sampling houses (single family dwelling or detached houses) for this research.

1.9 **Scope and Limitation of the Research**

The research is directed towards Malaysian prospective house owner in housing development. It is based on investigating the factor influencing human personalization behaviour for effective housing occupancy of the prospective house owners in Malaysia.
The research is limited to studying occupancy issues in housing provision that prospective house owners need and why they need them, Johor State, South West Malaysia. The study focuses on low-rise, residential housing development and did not cover high-rise buildings, educational, industrial or commercial houses. A case study is adopted to represent the housing situation in the state of Johor with an in-depth study on the current housing occupancy.

Furthermore, the study focuses on human behaviour, wishes and expectations of prospective house owners’ towards their future houses. The five factors studied are:

1. Satisfaction
2. Environmental Condition
3. Subjective Norm to Occupancy
4. Attitude towards Occupancy and,
5. Personalization/participation

The study was conducted within the framework of existing individual models geared towards integrating into a holistic housing occupancy model (HOM). The individual models were: Theory of Reason Action (TRA) founded by Fishbein and Ajzen, (1975), Masrom and Hussein, (2008); Theory of Household Satisfaction Index HSI (ACSI) to determine user satisfaction by Masrom, (2012) and Yang, (2006); and Participation Theory posited by Shan, Xi-Zhang, (2012), to ascertain level of end-users’ involvement in their prospective houses.

1.10 Thesis Organizational Structure

This thesis is organized to comprise six chapters as follows:
Chapter 1: The first chapter conveys the general introduction to the research area and the literature that defines and supports the theoretical framework of the study. The research problem to be addressed is outlined and made clearer by the aim of the research and which defines the research goal. This is followed by research gap, proceeds with research questions which translate into the research objectives and brief outline of research methodology. Succeeding, the research scope and the limitations of the study. This chapter is concluded with definition of terms and the thesis structure summary.

Chapter Two: The literature on housing occupancy as it is related to public buildings was reviewed to familiarize the study with developments in housing provision. Correspondingly, this chapter review previous studies on end users’ dissatisfaction and the issues of housing occupancy, housing delivery process, housing situation in Malaysia and end-users personalization/participation in the settings of study. The literature coverage on housing non-occupancy in Malaysia and the context of the study defines the gap identified. The previous studies and the scholarly record of the subject matters relating to supporting theories.

Chapter Three: This chapter defines in detail the research procedure and philosophical paradigm, theory, methods and strategies employed in conducting the research. The research was conducted in response to the research problem and questions; it also presents the research framework illustrating the phases of the research. Data collection and analysis process were discussed in detail in this chapter. Also, the strategies and outlines describing the process adopted in the research featuring the steps in line with scientifically accepted procedures to justify the methods and the tools applied in the research.

Chapter Four: Data analysis process was discussed in detail in this chapter. In addition, the results of the study are presented and discussed as well as addressing research objective 1 and research question 1; the expected outcome of the study is highlighted.

Chapter Five: This chapter reports the results and findings from the analysis and also discusses the result in order to search for logical conclusions. This chapter also addresses research objectives 2 & 3 as well as research questions 2 & 3.
Chapter Six: This chapter presents the research conclusion, contribution of this study to the body of knowledge based on three areas: - theoretical/conceptual contributions to knowledge, methodological and practical contributions to knowledge, and the limitation and suggestions for future research are discussed.

The concluding chapter is made based on the analysed results and the findings. Outline of the contribution to knowledge and outcome arrived at are clearly indicated. As a result of this research, recommendations were made and areas for further studies were determined.
Figure 1.1  Thesis Structure Summaries
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