

**ASSESSING RESIDENTS' SATISFACTION ON SOCIAL
HOUSING QUALITY AND POLICY IN BATNA CITY,
EASTERN ALGERIA**

BY

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ABSTRACT

Social housing is an issue of concern for governments all over the world. In Algeria, the issue of housing has been addressed since independence in 1962 where the housing policies implemented in Algeria have raised many discussions. As urban growth has been increasing steadily and given that adequate quality social housing in urban areas is beyond most low-income Algerians. This research investigates and evaluates social housing quality, adequacy, provision and quality of life of the residents of social housing in the city of Batna in eastern Algeria. It explores and examines the interrelationships between variables affecting social housing. The thesis explores the relationship between Socio-economic Characteristics (SEC), Residential Quality and Housing Adequacy (RQHA), Social Housing Provision (SHP), and Residents' Quality of life (RQOL) in the context of social housing in Batna city. A conceptual framework was developed through an extensive review of the literature proposing a total of ten hypotheses. To achieve its objectives, this research adopted a mixed-method design by testing the proposed conceptual framework using primary data collected from a survey of 418 residents. The data were analysed using descriptive analysis and Exploratory Factor Analysis through SPSS. In addition, Confirmatory Factor Analysis was performed using AMOS before validating the measurement model and testing the hypotheses through structural equation modelling as proposed in the conceptual framework. A face-to-face semi-structured interview was conducted with five selected experts. These individuals were selected based on their experience and engagement in areas related to social housing. The interviews were analysed using thematic analysis and coding procedures. Besides that, direct qualitative observation was performed to examine the current physical environment of the study area. This was followed by the analysis of documents obtained from the Housing Department including statistics, maps, photos, and architectural plans. The results revealed that six out of ten hypotheses were supported. RQHA appeared to have a vital role in the conceptual framework as it influences SHP and RQOL and it was influenced by SEC. In addition, RQHA fully mediates the relationship between SEC and SHP, and between SEC and RQOL. The findings of the qualitative interviews revealed three main themes, namely housing policies in terms of quality and quantity, housing adequacy and quality of life, and improvement of social housing quality. Accordingly, a significant change in the structure of the Algerian housing policies is effectively needed to offer decent and adequate housing and to meet the needs of their residents especially in terms of internal and external design, and public spaces. The findings would serve as an instrument to support and guide housing policies. This will ameliorate social housing in terms of its quality, adequacy and provision which will lead to improving the residents' quality of life. The findings contribute significantly to government, housing stakeholders including Offices of Promotion and Real Estate Management, architects, project managers, and urban planners in the context of social housing policymakers, design, planning and construction.

مُلخَصُ البَحْث

الإسكان الاجتماعي اليوم من القضايا الرئيسة للحكومات في جميع أنحاء العالم، وقد نوقشت مشكلته في الجزائر منذ الاستقلال عام 1962، فقد أثارت مسألة سياسات السكن المطبقة عددًا من النقاشات، ومع النمو الحضري المتزايد على مدار الأعوام الماضية؛ زادت ضرورة توفير سكن اجتماعي ملائم جيد في المناطق الحضرية، غير أن ذلك لم يتحقق تمامًا، وأصبح السكن الاجتماعي بعيد المنال، وبخاصة للجزائريين ذوي الدخل المنخفض، وعليه؛ يهدف هذا البحث إلى فحص السكن الاجتماعي، وتقييم جودته، وملاءمته، وتوفره، وبخاصة في شمالي شرقي الجزائر، وتحديدًا في مدينة باتنة، إضافة إلى بحث العلاقات بين المتغيرات المختلفة التي تؤثر على السكن الاجتماعي في منطقة البحث؛ أي: الخصائص الاجتماعية والاقتصادية، وجودة السكن وملاءمته، وتوفير السكن الاجتماعي، وجودة حياة السكان في سياق السكن الاجتماعي في مدينة باتنة الجزائرية، ولدراسة ذلك طوّر الباحث إطارًا مفاهيميًا من خلال مراجعة شاملة للدراسات السابقة، مع اقتراح عشر فرضيات، وتوسّل الباحث المنهج المتعدد للإجابة عن أسئلة البحث، وقد اختُبر الإطار المفاهيمي المقترح باستخدام البيانات الأولية (الاستبانات) التي جُمعت من 418 مشاركًا في منطقة البحث، وجرى تحليل البيانات باستخدام التحليل الوصفي، وتحليل عامل الاستكشاف من خلال برنامج SPSS، وتحليل عامل التأكيد باستخدام برنامج AMOS، قبل التحقق من صحة نموذج القياس واختبار الفرضيات من خلال نمذجة المعادلة الهيكلية وفق المقترح في الإطار المفاهيمي، وكذا أجريت مقابلات شبه منظمة مع خمسة خبراء مختارين اختيروا بناءً على خبرتهم ومشاركتهم في مختلف المجالات المتعلقة بالإسكان الاجتماعي، وذلك لبيان كيفية تحسين برنامج الإسكان الاجتماعي في مجال البحث، ثم جرى تحليل المقابلات باستخدام التحليل الموضوعي من خلال إجراءات الترميز، وأيضًا أجريت الملاحظة النوعية المباشرة لفحص الوضع البيئي الحالي للمنطقة قيد البحث، وأعقب ذلك تحليل الوثائق التي جُمعت من مديرية السكن بما في ذلك الإحصاءات والخرائط والصور والمخططات المعمارية، ومن خلال النتائج المتوصل إليها قُبلت ست فرضيات من أصل عشر، وتوصل البحث إلى أن لجودة السكن وملاءمته دورًا حيويًا في الإطار المفاهيمي المقترح؛ لأنها تؤثر على توفير السكن الاجتماعي وجودة حياة السكان، وتتأثر بالخصائص الاجتماعية والاقتصادية، كما أن لجودة السكن وملاءمته دور الوسيط بين توفير السكن الاجتماعي والخصائص الاجتماعية والاقتصادية وجودة حياة السكان، وكشفت نتائج المقابلات عن ثلاثة محاور رئيسة هي: سياسات السكن من حيث الجودة والكمية، وملاءمة السكن وجودة الحياة، وتحسين جودة السكن الاجتماعي، واستنتج الباحث أن هناك حاجة حقيقية إلى تغيير كبير في سياسات السكن الاجتماعي المعتمدة، وذلك لتوفير سكن لائق ملائم ذوي الدخل المنخفض، وبخاصة ما يتعلق بالتصميم الداخلي والخارجي والأماكن العامة، ويُتوقع أن تؤدي نتائج هذا البحث إلى تحسين السكن الاجتماعي من حيث جودته وملاءمته وتوفره، مما سينعكس على تحسين جودة حياة السكان في منطقة البحث، وستسهم نتائج البحث في دعم وزارة السكن والعمران والمدينة للحكومة الجزائرية وأصحاب مصلحة السكن، والمهندسين المعماريين، ومديري المشاريع، والمخططين الحضريين، وذلك من خلال اقتراح سياسات وقرارات للسكن الاجتماعي في التصميم والتخطيط والبناء.

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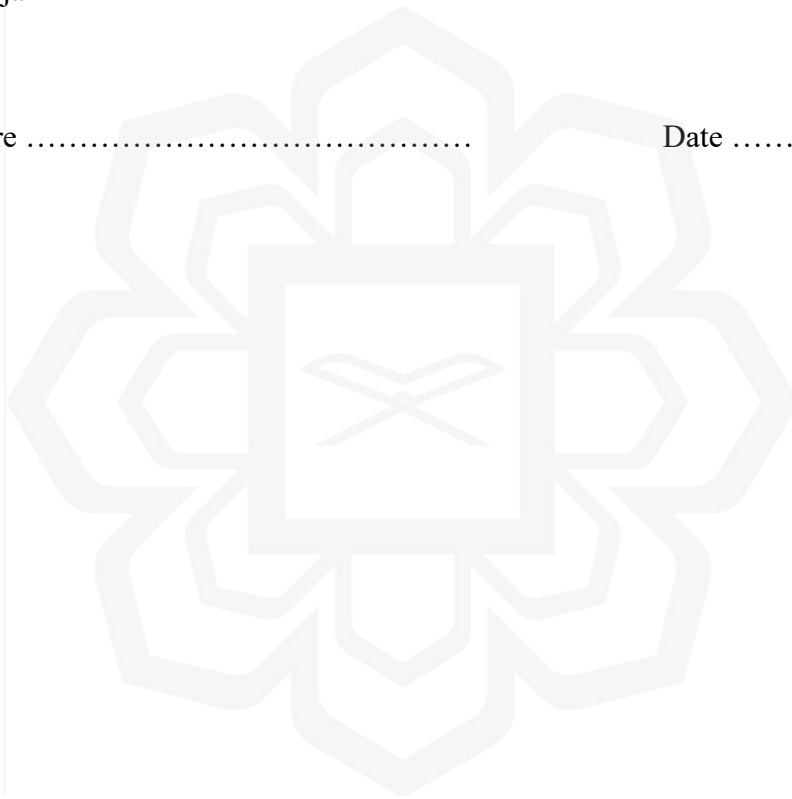
DECLARATION

I hereby declare that this thesis is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Riadh Djafri

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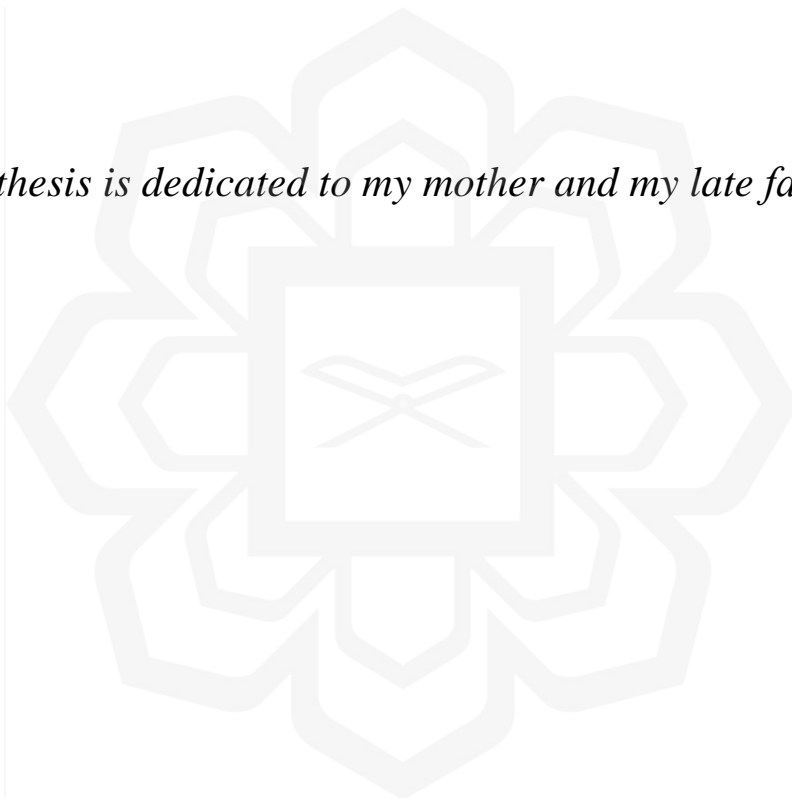
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This thesis is dedicated to my mother and my late father's soul.



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LIST OF ABBREVIATIONS

AADL	Lease to Own Programme (Housing Programme)
AADL	National Agency for Housing Improvement and Development (Agency)
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis
CNL	National Housing Fund
ENPI	National Company for Real Estate Development
IWI	International Wellbeing Index
LPA	Assisted Housing Programme
LPL	Public Rental Housing
LPP	Promotional Public Housing
LR	Rural Housing Programme
MHUV	Ministry of Habitat, Urbanism and City
NW	National Wellbeing
OPGI	Office of Promotion and Real Estate Management
PDAU	Master Plan
POE	Post-Occupational Evaluation
POS	Land-use Plan
PW	Personal Wellbeing
QOL	Quality of Life
RQHA	Residential Quality and Housing Adequacy
RQOL	Residents' Quality of Life
SEC	Socio-Economic Characteristics
SEM	Structural Equation Modelling
SHP	Social Housing Provision
ZHUN	New Urban Housing Zones

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

By the beginning of the third millennium, more than 1.1 billion people will be living in poor housing in urban areas. In addition, more than half of the population in most cities in developing countries are living in unhealthy and insecure environments, in which the greater proportion are women and children. This, without a doubt, threatens their quality of life. Rapid urbanisation underscores the need for greater access to housing in urban areas as half of humanity live in cities (KU Centre for Community Health and Development, 2019).

Housing has become one of the main concerns in Algeria despite Algeria's housing policy having evolved since independence (1962) by implementing various housing policies and plans in order to tackle the housing issues (Algerian National Report on Housing, 2014; Merzag, 2015; Tarache, 2009). The Worldometer statistics illustrated the rapid growth of Algeria's urban population representing 72.6% of the global population (Worldometer, 2020). According to Ministère de l'Habitat de l'Urbanisme et de la Ville (2015), the policy of providing housing is still in progress as part of the strategy resulting from the government's action plan to ensure that deadlines for completion and delivery of 1.6 million units including 800 000 public rental housing units (LPL) are met by the end of the five-year period 2015-2019. However, the migration from rural population to urban areas caused by seeking for a better life and job has created overcrowding in cities with the population increasing every year. This has led to the lack of housing where there will be an estimated 4 million housing

shortage by 2025 if the construction and delivery continue at the current pace (Riad, 2016). The Algerian National Report on Housing (2014) reported that urban area crowding and the development of suburban areas had become critical issues in Algerian cities. This is the result of an urban dynamic that is not accompanied by appropriate urban planning that failed to control population growth and organisation.

During the colonial period, the situation in Algerian cities was critical where the total housing was estimated at 850 100 units in 1945. In addition, from 1945 to 1954, the housing stock grew to 1 220 221 units (Benmatti, 1982). Nevertheless, during the revolution period (1954-1962), the rate of construction fell, and the damages caused by war emphasised the need for housing (Merzag, 2015).

After independence in 1963, there was a deficit of 1 071 979 housing units for a population of 10 288 000 inhabitants. This situation was caused by a disruption of administrative and executive structures, and a decline in the pace of construction (Benmatti, 1982). The causes of the housing crisis in Algeria are divided into three dimensions, namely historical with the colonial heritage and taking charge of housing after independence, socio-economic issue whereby migration has caused an increased demand for housing. In contrast, the economic condition remained insufficient to accommodate the increased demand (Tarache, 2009). Furthermore, the abandonment of at least 300 000 homes by Europeans at the time of independence led to the false belief that the housing sector was not a priority (Lalonde 2010).

Since 1975, the Algerian government executed the ZHUN (New Urban Housing Zones) housing programme, that is an international housing model based on the concepts of prefabrication and standardisation. It was an attempt to solve the housing crisis and reduce the housing deficit in Algeria. The purpose of this policy was to construct a considerable number of new housing projects in order to solve the issues of

social and physical environments. The objective, therefore, was to set and create new guidelines for designing new urban areas which meet the needs of occupants to increase their level of satisfaction (Oussadou, 1988). However, Naceur (2013) claimed that ZHUN housing programmes were incomplete or poorly finished and deprived of their required facilities. Therefore, it failed to solve the housing crisis.

The new era in Algeria has known a sort of evolution in launching new national development plans to upgrade the living condition and surpass the housing crisis. Concerning the housing sector, 3 585 572 units were completed between 2010 and 2017. However, the housing shortage is yet to be solved (Services du Premier Ministre, 2017).

The housing shortage is not the only problem afflicting Algeria, but also the quality of housing does not meet the needs of occupants. Many researchers highlight the housing quality and delivery as significant concerns in most developing countries. On this issue, a study that focused on design quality determinants and parameters for affordable housing found that the current design quality of affordable housing needs to be improved by focusing on design, construction, services, site development, neighbourhood and sustainability (Chohan et al., 2015). In addition, a successful housing policy would be able to cater to the criteria of house design, value, identity and planning image strategy (Avraham & Ketter, 2012). Moreover, the evaluation of residential facilities will influence the end-user's satisfaction (Leung, Yu, & Yu, 2012). The literature has found that the evaluation of the residential environment cuts across several disciplines, including architecture, environmental psychology, housing and sociology, and has traditionally been based on human-environment interactions (Adewunmi Oluwatayo, Ibem, & Amole, 2014).

Reilly (2008) described decent housing as a living environment that provides healthy, safe, secure, energy-efficient and free from serious disrepair. Another study on

measuring residential environmental satisfaction by Adriaanse (2007) also revealed that the social climate in a neighbourhood plays a crucial role when evaluating their satisfaction. Elements such as ambient conditions of interior spaces, the security of residence, availability of services, social infrastructure, privacy and sizes of main activity areas in dwelling units can influence the satisfaction of residents, and this is identified as essential criteria in housing development (Adewunmi Oluwatayo et al., 2014). A study conducted in the city of M'sila, Algeria, assessed the degree of adaptation of social housing to user needs by comparing housing design to inhabitant's practices. The findings revealed that the room layout, form and surface, humidity, and comfort had a significant influence on user satisfaction (Merzag, 2015). Another research in Biskra, a city in South Algeria, identifies how the characteristics of shared outdoor spaces in collective housing influence residents' interaction. The results showed that the poor quality of communal outdoor spaces in the study area discourages all forms of spatial use. The finding also revealed that the layout of buildings and the quality of common outdoor spaces in residential neighbourhoods significantly affect the use of these spaces and the social interaction among residents (Naceur, 2013).

Thus, it is crucial to improve the quality of housing by ensuring that everyone has the right to decent, affordable, safe and adequate housing within their context where they practice their daily life (KU Centre for Community Health and Development, 2019). The evaluation of residential buildings will identify the principal elements that influence the end-user's satisfaction and aspiration (Adewunmi Oluwatayo et al., 2014; Ibem & Alagbe, 2015; Leung et al., 2012; Reilly, 2008). Concerning Algeria's provision of social housing, there is a need to investigate these elements since they have yet to be studied.

Public rental housing, or better known as social housing, is dedicated to the low-income and disadvantaged social groups who are homeless or living in precarious and unhealthy conditions. This type of housing is constructed by contractors assigned by OPGI under the ministry of housing. It is occupied for a very low rental rate and managed by a specific legal regime (MHUV, 2018).

1.2 PROBLEM STATEMENT

The provision of good quality housing remains a major problem facing policymakers in developing countries, with Algeria being no exception. The Algerian policy focus on ensuring the provision of housing to low-income households who cannot house themselves adequately. MHUV (2018) reported a shortage of 1.5 million housing units in 2018. In addition, 2.5 million units are in unsafe and poor conditions dated from independence in 1962. The demand continues to outstrip the supply with the growth of cities. This creates a need for affordable high-quality residential buildings.

To depict the problem accurately, this research seeks to address three interconnected issues that collectively form the problem of this study, namely social housing provision, housing quality and adequacy, and quality of life.

SOCIAL HOUSING PROVISION

Many studies (Madani, 2012; Merzag, 2015; Mohdeb, 1988; Tarache, 2009) have emphasised that Algeria is suffering from a housing crisis. The uncontrolled concentration of population is a phenomenon that affects all countries of the third world. In Algeria, a significant imbalance affects the distribution of the population. According to the Algerian National Office of Statistics ONS (2017), the construction of housing has increased in recent decades to reach 1 531 518 units. These housing units completed

construction between 2005 to 2012. Out of 1 531 518 units, 428 539 are public rental housing rented to low-income groups. This group has access to social housing financed by the government.

Over the past decades, many studies (Behloul, 1991; Bellal, 2009; Madani, 2012; Merzag, 2015) considered that the issue of the housing shortage in Algeria is crucial. Nowadays, despite the considerable delivered number of housing units in Algeria, especially in terms of social housing, the problem of housing provision is a major concern.

HOUSING QUALITY AND ADEQUACY

The concept of housing quality and adequacy has been widely reviewed and studied by scholars. Accordingly, there is a need to include a qualitative approach to the design and construction of buildings to improve housing quality and quality of life for residents. This is through building materials and techniques, energy efficiency, sanitation networks, electricity, gas, and drinking water. The improvement of housing design through the introduction of various amenities and the elimination of a few types of housing due to inappropriate space would allow for more spacious housing. Along this line, the Algerian government policy of habitat has emphasised integrating administrative structures and public facilities, culture and leisure by erecting housing complexes into integrated cities including schools, health infrastructure, libraries, sports fields, markets and others (Ministère de l'Habitat de l'Urbanisme et de la Ville, 2015).

Madani (2012) argues that despite the considerable effort of injecting public resources in the field of housing, and after many reforms and reconfigurations in the methods of intervention, financing and the process of developing housing projects, Algeria has failed to play its role as a distributor of public facilities as well as adequate