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.

مُلخَّص البحث

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، وتوفيره، 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 طوَّر الباحث إطارًا مفاهيميًّا من خلال مراجعة شاملة للدراسات السابقة، مع اقتراح عشر فرضيات، وتوسَّل 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 أنموذج 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 حيويًّا 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 بالتصميمين الداخلي والخارجي والأماكن العامة، ويُتوقع أن تؤدي نتائج هذا البحث إلى تحسين السكن الاجتماعي من حيث جودته وملاءمته وتوفيره، 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.

APPROVAL PAGE

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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

Signature …… Date ……..

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

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TABLE OF CONTENTS

Abstract ii
Abstract in Arabic iii
Approval Page iv
Declaration v
Dedication vii
Acknowledgement viii
Table of Contents ix
List of Tables xiv
List of Figures xvi
List of Abbreviations xvii

CHAPTER ONE: INTRODUCTION 1
1.1 Background of the Study 1
1.2 Problem Statement 5
1.3 Research Questions 8
1.4 Research Aim and Objectives 8
1.5 Scope of the Study 9
1.6 Significance of the Study 9
1.7 Organisation of the Thesis 10

CHAPTER TWO: LITERATURE REVIEW 12
2.1 Introduction 12
2.2 The Concept of Residential Satisfaction 12
2.3 Determinants of Residential Satisfaction 16
2.4 Housing and Residential Quality 20
2.5 The Concept of Adequate Housing 30
2.5.1 Affordability 35
2.5.2 Safety 36
2.5.3 Decent 37
2.5.4 Accessibility 38
2.6 Criteria for Evaluating Collective Social Housing 40
2.7 Post-Occupational Evaluation (POE) 42
2.8 International Housing and Neighbourhood Guidelines 44

2.9 Quality of Life 47
2.10 Objective and Subjective Approaches to Quality of Life 51
2.10.1 Factors Influencing Quality of Life 53
2.10.2 City Performance Indicators 54
2.10.3 MERCER, Human Resource Consulting (Quality of Life Survey) 55
2.11 Quality of Life and Wellbeing in Algeria 58
2.12 Review of Empirical Studies 60
2.13 The Conceptual Framework of the Study 83
2.14 Chapter Summary 86

CHAPTER THREE: ALGERIAN HOUSING POLICIES 87
3.1 Introduction 87
3.2 Overview of the Algerian Housing Policies 87
3.3 Algerian Housing Policies From 1945 to 1999 90
3.3.1 Colonial Period 1945-1962 90
3.3.2 After Independence 1963-1999 91
3.4 Algerian Housing Policies From 2001 to 2019 95
3.4.1 The First Algeria National Development Plan (2001-2004) 96
3.4.2 The Second Algeria National Development Plan (2005-2009) 97
3.4.3 The Third Algeria National Development Plan (2010-2014) 98
3.4.4 The Fourth Algeria National Development Plan (2015-2019) 100
3.5 Housing Programmes Introduced in Algeria 105
3.5.1 Public Sector Housing 107
3.5.1.1 Public Rental Housing (LPL) 107
3.5.1.2 The Rural Housing Programme (LR) 108
3.5.1.3 Lease to Own Programme (AADL) 109
3.5.1.4 Assisted Housing Programme (LPA) 109
3.5.1.5 Promotional Public Housing (LPP) 110
3.5.2 Private Sector Housing 110
3.5.2.1 Promotional Luxury Housing 110
3.5.2.2 Self-Built Housing 111
3.5.2.3 Real Estate Cooperative Housing 111
3.6 Agencies Involved in the Housing Sector in Algeria 114
3.6.1 The Office of Promotion and Real Estate Management (OPGI) 114
3.6.2 National Agency for Housing Improvement and Development (AADL) 115

3.6.3 The National Housing Fund (CNL) 117
3.6.4 National Company for Real Estate Development (ENPI)..... 117
3.7 Algerian Housing Guidelines..... 119
3.8 Case Study..... 122
3.8.1 Algeria Overview 122
3.8.1.1 Housing Supply and Property Markets in Algeria 124
3.8.1.2 Batna City 125
3.8.1.3 Selected Social Housing in Batna City 128
3.9 Identify Gaps of the Study 134
3.10 Chapter Summary..... 136

CHAPTER FOUR: RESEARCH METHODOLOGY 137
4.1 Introduction..... 137
4.2 Research Design..... 137
4.3 Data Collection and Analysis..... 139
4.3.1 Quantitative Research 140
4.3.1.1 Survey questionnaire..... 140
4.3.1.2 Development of the Questionnaire and Description of Variables..... 141
4.3.1.3 Survey Instruments Translation 143
4.3.1.4 Sampling Technique..... 143
4.3.1.5 Determination of Sample Size 144
4.3.1.6 Data Collection from Residents 147
4.3.2 Qualitative Research 148
4.3.2.1 Qualitative Interviews 148
4.3.2.2 Analysing Qualitative Interviews..... 151
4.3.2.3 Analysis of Documents 152
4.3.2.4 Qualitative Site Observations..... 153
4.4 Data Preparation and Screening 153
4.4.1 Missing Data 154
4.4.2 Outliers..... 155
4.4.3 Normality 156
4.4.4 Multicollinearity..... 157
4.5 Descriptive Analysis 158
4.6 Exploratory Factor Analysis 158
4.7 Confirmatory Factor Analysis..... 159
4.7.1 Reliability and Validity 161

4.7.1.1 Reliability 161
4.7.1.2 Validity 162
4.8 Pilot Study 163
4.9 Structural Equation Modelling 165
4.9.1 Assessment of Mediating Variables 168
4.10 Chapter Summary 171

CHAPTER FIVE: DATA ANALYSIS AND RESULTS 172
5.1 Introduction 172
5.2 Descriptive Analysis 173
5.2.1 Response Rate 173
5.2.2 Socio-Economic Characteristics of Respondents 174
5.2.3 Descriptive Analysis of Variables 177
5.2.4 Residents' Satisfaction on Different Variables in Social Housing 182
5.3 Exploratory Factor Analysis (EFA) of Variables 184
5.4 Confirmatory Factor Analysis (CFA) 187
5.4.1 Validating and Assessing the Pooled Measurement Model Using CFA 188
5.4.1.1 The Measurement Model of Residential Quality and Housing Adequacy 188
5.4.1.2 The Pooled Measurement Model Using CFA 190
5.4.1.3 Evaluating the Fitness of the Pooled Measurement Model 191
5.4.1.4 Reliability and Validity 192
5.5 Structural Equation Modelling 196
5.5.1 Evaluation of the Structural Equation Modelling 197
5.6 Hypothesis Testing 198
5.6.1 Direct Relationships 200
5.6.2 Indirect Relationships (Mediation Relationships) 203
5.6.3 Recapitulating the Results of Hypothesis Testing 211
5.7 Analysing Qualitative Interviews 212
5.8 Analysing Social Housing in the Study Area 219
5.9 Findings from Site Observations 225
5.10 Chapter Summary 231

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS 233
6.1 Introduction 233

6.2 Summary of Key Findings 234
6.2.1 Discussion of the Direct Hypotheses 237
6.2.2 Discussion of the Indirect Hypotheses 241
6.3 Research Contribution 244
6.3.1 Theoretical Contribution 245
6.3.2 Methodological Contribution 246
6.3.3 Practical Contribution 247
6.4 Recommendations 248
6.4.1 General Recommendations 248
6.4.2 Specific Recommendations 249
6.5 Limitations and Suggestions for Future Research 252

REFERENCES 254
APPENDIX A 275
APPENDIX B 283
APPENDIX C 291
APPENDIX D 293
APPENDIX E 295
APPENDIX F 296

LIST OF TABLES

Table 2.1	Determinants Influencing Residential Satisfaction	19
Table 2.2	Elements of the Definition of Residential Quality	24
Table 2.3	Housing Quality Indicators (HQI)	27
Table 2.4	Features and Criteria that Determine the Right to Adequate Housing	32
Table 2.5	The Scales of Neighbourhood	54
Table 2.6	City Sectors According to Different International Organisations	55
Table 2.7	Factors Used to Measure the Quality of Life	56
Table 2.8	Summary of Empirical Studies	75
Table 3.1	Budget of the Economic Support Programme 2001-2004	97
Table 3.2	The Evolution of Socio-Economic Development Indicators During the Period 2000-2017	102
Table 3.3	Summary of Housing Target and Achievement in Algeria 1999-2019	105
Table 3.4	Different Housing Programmes Offered by the Algerian Government (Public Sector)	112
Table 3.5	Recommended Surfaces Needed for a City Type of 300 000 Inhabitants	120
Table 3.6	Social Housing Units Constructed in Batna City	126
Table 3.7	Social Housing at Hamla	129
Table 4.1	Constructs in the Survey Questionnaire	142
Table 4.2	Sample Size of Social Housing Units at Hamla 1, 2 and 3	146
Table 4.3	List of Interviewees for Qualitative Interviews	150
Table 4.4	Responses rate of the distributed questionnaire	155
Table 4.5	Skewness and Kurtosis Values for all Constructs	156
Table 4.6	Multicollinearity Statistics for all Constructs	158
Table 4.7	Recommended Fit Statistics for Every Index	161

Table 4.8 Reliability for the Pilot Study 164

Table 4.9 KMO and Bartlett's Test for Sample Adequacy 165

Table 5.1 Response Rate of the Distributed and Online Questionnaires 174

Table 5.2 Socio-Economic Characteristics of the Respondents 176

Table 5.3 Descriptive Statistics of Residential Quality and Housing Adequacy 178

Table 5.4 Descriptive Statistics of Social Housing Provision 181

Table 5.5 Descriptive Statistics: Residents' Quality of Life 182

Table 5.6 KMO and Bartlett's Test 184

Table 5.7 Factor loading for all Items 185

Table 5.8 Reliability Coefficient for the Constructs 187

Table 5.9 Reliability test of the measured constructs 193

Table 5.10 Summary of Validity Assessment of the Revised Pooled Measurement Model 195

Table 5.11 Summary of the Fitness Indexes for SEM 198

Table 5.12 Summary of the Hypotheses Statement 199

Table 5.13 Results of the Hypothesis Testing of the Direct Relationships 203

Table 5.14 Bootstrap Results of the Mediation Relationships 210

Table 5.15 The Significance Level of the Direct and Indirect Paths for all Mediation Relationships 210

Table 5.16 Results of Hypotheses Testing 211

Table 5.17 Comparison Between Different Models of Type F2-F3 and the Recommended Algerian Norm 221

LIST OF FIGURES

Figure 2.1	Model Used to Assess Residential Satisfaction	15
Figure 2.2	Model of Residential Satisfaction	18
Figure 2.3	Components of Housing Quality	21
Figure 2.4	Conceptual Framework Describes the Dimensions that Influence Clients' Satisfaction with Architectural Service	22
Figure 2.5	A Proposed Conceptual Framework of Housing Quality	29
Figure 2.6	Dimensions in Bedroom for Disabilities	40
Figure 2.7	Theoretical Framework of POE	44
Figure 2.8	Clarence Perry's Neighbourhood Unit Concept	45
Figure 2.9	Distance from Residential Housing to Different Facilities in a Neighbourhood in Malaysia Guidelines	47
Figure 2.10	Model of Residential Domain Satisfactions and QOL	50
Figure 2.11	Conceptual Framework of the Study	85
Figure 3.1	Housing Units' Shortage and Stock in 1954 and 1963	91
Figure 3.2	Average Household Size in Social Housing from 1962 to 1998	92
Figure 3.3	Evolution of the Urban and Rural Population (1954-2019)	94
Figure 3.4	Budgets Dedicated to Housing Sector 2001-2019	96
Figure 3.5	Average Household Size (1998-2030)	101
Figure 3.6	Public and Private Housing in Algeria	118
Figure 3.7	Social Housing Units Implemented in Algerian Sahara	121
Figure 3.8	Algeria Population (1950-2020) and the Yearly Growth Rate	123
Figure 3.9	Housing Stock and Deficit in Algeria (1966-2019)	125
Figure 3.10	Location of the New Urban Centre of Hamla and Batna City	127
Figure 3.11	Map of Batna City Showing the Study Areas of Hamla in Colour	130
Figure 3.12	Location of Social Housing Units and Different Facilities at Hamla 1 and Hamla 2	131

Figure 3.13 Location of Social Housing Units at Hamla 3 132

Figure 3.14 Different Housing Units and Facilities as Distributed at Hamla 3 133

Figure 4.1 Six-Stage Process for Structural Equation Modelling 167

Figure 4.2 Flowchart Methodology of the Study 170

Figure 5.1 Residents' Satisfaction on Different Variables in Social Housing 183

Figure 5.2 Confirmatory Factor Analysis for RQHA 189

Figure 5.3 The Pooled Measurement Model of the Study 190

Figure 5.4 The Revised Pooled Measurement Model 192

Figure 5.5 Structural Model of the Study 197

Figure 5.6 Mediation Relationship Between RQHA, SHP and RQOL 205

Figure 5.7 Mediation Relationship Between SEC, SHP and RQOL 206

Figure 5.8 Mediation Relationship Between SEC, RQHA and SHP 208

Figure 5.9 Mediation Relationship Between SEC, RQHA, and RQOL 209

Figure 5.10 Ground Floor Plan and Façade Type Three Units per Level Constructed at Hamla 3 223

Figure 5.11 Sample of Social Housing Units Plan Constructed in the New Urban Centre of Hamla 224

Figure 5.12 Example of Social Housing Blocks at Hamla 1 226

Figure 5.13 Poorly Maintained and Explored Open and Green Spaces 227

Figure 5.14 The Amenities Located at Hamal 1 and Hamal 2 229

Figure 5.15 The Amenities Located at Hamal 3 230

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