



Infrastructure Delivery System for Affordable Housing Policy Implementation In The
South-South Region Of Nigeria

BY

ESOZHIM JOY OGBUGO

SUPERVISED BY:

PROF. PETER MCDERMOTT

DR. GREGORY WATTS

Abstract

This thesis explores the infrastructure delivery systems (IDS) for affordable housing policy implementation in Nigeria's South-South region. The study aims to develop a comprehensive framework to guide policymakers and address the challenges and barriers hindering the successful implementation of affordable housing initiatives.

The research employs a qualitative method, using multiple case studies, semi-structured interviews, and document analysis to gather rich, context-specific data. The study examines three affordable housing projects in the South-South region, conducting an in-depth intra-case analysis followed by a cross-case synthesis to show common themes, unique similarities and differences, and best practices.

The findings reveal the critical roles of policy and legislation, stakeholder collaboration, finance and resources, monitoring and control, and the need to address challenges and barriers in the successful implementation of affordable housing policies. The study highlights the importance of political will, adequate funding, consistent policies, and effective stakeholder engagement in overcoming obstacles and driving project success.

Based on the empirical evidence and theoretical underpinnings, the study develops the Framework for Affordable Housing Policy Implementation (FAHPI). The FAHPI provides a structured approach to understanding the complex interplay of factors influencing policy implementation, emphasizing the need for robust monitoring and control, strategic resource management, and stakeholder collaboration.

The framework is validated through mini focus group discussions with industry experts, confirming its potential to enhance infrastructure delivery systems and guide policymakers in improving affordable housing outcomes. The study contributes to the existing body of knowledge by addressing the research gap concerning IDS adoption processes in the Nigerian affordable housing sector and offers practical recommendations for policymakers and practitioners.

The thesis concludes by discussing the study's limitations, highlighting areas for future research, and emphasizing the importance of continuous improvement and adaptation in the face of evolving challenges in the affordable housing. The findings and the FAHPI framework provide a foundation for more effective, inclusive, and sustainable affordable housing initiatives in Nigeria's South-South region and beyond.

Table of Contents

Abstract	ii
List of Tables	x
List of Figures	xi
Dedication	xiii
Declaration	xiv
Acknowledgement	xv
Implemented Abbreviations	xvi
Definition of Keywords	xvii
1 CHAPTER ONE: RESEARCH INTRODUCTION.....	1
1.1 Chapter Overview	1
1.2 Background of the study	1
1.3 Rationale of the study	3
1.4 Research Questions.....	5
1.5 Aim and Objectives of the Research	6
1.5.1 Aim	6
1.5.2 Objectives.....	6
1.6 Comparison Between Research Aims, Objectives and Questions	6
1.7 Research Propositions	8
1.8 Scope of the study	8
1.9 Methodology.....	10
1.10 Structure of the Thesis	10
1.11 Chapter Summary	12
2 CHAPTER TWO: LITERATURE REVIEW.....	13
2.1 Chapter Overview	13
2.1.1 Overview of Nigeria	13
2.2 Implementing Socio-Economy Development Policy of Nigeria.....	14
2.2.1 Policy	14

2.2.2	Concept of Housing and Housing Policy.....	21
2.2.3	The Key Elements to Affordable Housing Provision	22
2.2.4	Affordable Housing Development in Nigeria	26
2.2.5	The Need for Affordable Housing	28
2.2.6	Housing Problem in Nigeria	29
2.3	Policy Decision Makers in Nigeria	30
2.3.1	Federal Government:.....	30
2.3.2	State Government:	31
2.3.3	Local Government:	32
2.3.4	Housing Agencies and Corporations	33
2.3.5	Private Sector	34
2.4	Challenges of Infrastructure delivery systems for affordable housing in Nigerian.....	35
2.4.1	Inadequate Government systems and Policy Implementation	36
2.4.2	Corruption and Organization in Nigeria	37
2.4.3	Lack of transparency	38
2.4.4	Stakeholders Engagement	38
2.4.5	Poor Power Supply	39
2.4.6	Unsatisfactory Professional Involvement.....	39
2.4.7	Inadequate Affordable Funding, Inflation, and Interest Rate.....	40
2.4.8	Affordable Housing Location.....	40
2.4.9	Legislative and Institutional Factor	41
2.4.10	Failed and Poor Infrastructure	41
2.5	Reason for failed Affordable housing in Nigeria.	44
2.5.1	Inadequate Project Resources	44
2.5.2	Poor Project Planning	45
2.5.3	Consistent Changes in Project Scope	45
2.5.4	Poor Communication	46

2.5.5	Lack of ability and Expertise	47
2.6	The Outcome of failed Policy implementation infrastructure delivery in Nigerian.....	48
2.6.1	Marginalize Community / Ignored	48
2.6.2	Environmental Damage	48
2.6.3	Implementation of Resources	49
2.7	Potential benefits.....	51
2.8	Conceptualizing Procurement in Construction	52
2.8.1	Theoretical Underpinnings of Construction Procurement	52
2.8.2	Procurement Approaches in Nigerian Construction	52
2.9	Chapter Summary	53
3	CHAPTER THREE: RESEARCH CONCEPTUAL FRAMEWORK.....	55
3.1	Chapter Overview	55
3.2	Theoretical underpinning of the Study.....	55
3.2.1	Systems Theory.....	56
3.2.2	Systems Thinking	56
3.2.3	A Systems Approach to Policy Implementation	57
3.3	Evaluation of IDS Existing Models /Frameworks.....	57
3.3.1	Systems Approach to Infrastructure Delivery (SAID)	58
3.3.2	The Interdependency Planning and Management Framework (IP&MF)	59
3.3.3	Infrastructure Projects' Lifecycle.....	61
3.3.4	Viable Infrastructure Delivery Systems Model (VIDM)	62
3.3.5	National Infrastructure System Model (NISMOD)	64
3.4	Conceptual Framework	66
3.4.1	Strategy for Research Execution	67
3.4.2	First Draft Conceptual Framework.....	68
3.5	Chapter Summary	78
4	CHAPTER FOUR: THE RESEARCH METHODOLOGY	79

4.1	Chapter Overview	79
4.2	Research Categories	79
4.2.1	Exploratory	79
4.2.2	Descriptive.....	79
4.2.3	Explanatory.....	80
4.2.4	Justification of Research Categories	80
4.3	Research Method Design.....	81
4.4	Research Philosophy	82
4.4.1	Ontological Consideration.....	83
4.4.2	Epistemological considerations.	84
4.4.3	Axiological Considerations.....	87
4.5	Research Approach	90
4.5.1	Deductive Approach	90
4.5.2	Inductive Approach.....	91
4.5.3	Abductive Approach	92
4.5.4	Selection of Research Approach	93
4.6	Research Purpose	93
4.6.1	Purpose of this Study	94
4.7	Research Strategy	95
4.7.1	Case Study as a Research Strategy of Choice.....	97
4.8	Case Selection Criteria and Justification	100
4.8.1	Reason for Three Failed Project.....	103
4.8.2	Establishing the Unit of Analysis (UA)	104
4.9	Methodological Choice (Research Design)	104
4.9.1	Rationale behind the Study's Methodological Choice.....	105
4.10	Sources of Data	105
4.10.1	Interviews – Unstructured, Structured and Semi-structured.	106

4.10.2	Documents	108
4.10.3	Computer-Mediated Communication (CMC) Data Collection Techniques 109	
4.10.4	Focus Group.....	111
4.11	Qualitative Analysis of data.....	112
4.12	Time Horizon.....	114
4.13	Ethical Issues	114
4.13.1	Code of Ethics	115
4.13.2	Credibility and Trustworthiness Issues	115
4.13.3	Validity and Trustworthiness of Research Findings	115
4.14	Constraints and Limitations.....	119
4.15	Chapter Summary	120
5	CHAPTER FIVE: INTRA-CASE AND CROSS-CASE ANALYSIS	122
5.1	Chapter Overview	122
5.1.1	Scope of Project Documentation	123
5.2	Intra-case Study Analysis Strategy	124
5.3	Review of the study's propositions	124
5.4	Profile of interviews from policy development and operation agencies	125
5.5	Case One-Project A (AHIDS1)	125
5.5.1	Project Description of Project A	125
5.5.2	Economic Forecasts and Nation-Building	126
5.5.3	Details of interviews and interviewees' profiles – Project A	128
5.5.4	Intra-case Analysis – Project A.....	129
5.5.5	Project A – Summary of Findings	145
5.6	Case One-Project B (AHIDS2)	148
5.6.1	Project Description of Project B	148
5.6.2	Details of interviews and interviewees' profiles – Project B	150
5.6.3	Intra-case Analysis – Project B.....	150

5.6.4	Summary of Project B.....	176
5.7	Case One-Project C (AHIDS3).....	178
5.7.1	Project Description of Project C.....	178
5.7.2	Details of interviews and interviewees' profiles.....	180
5.7.3	Intra-case Analysis	180
5.7.4	Summary of Project C.....	201
5.8	PART 2- Cross Case Analysis	203
5.8.1	Part Two-Overview	203
5.8.2	Cross case Analysis	203
5.9	Findings	206
5.9.1	Policy and Legislation.....	208
5.9.2	Challenges and Barriers to Affordable Housing.....	209
5.9.3	The monitoring and control mechanisms.....	209
5.9.4	Finance and resources.....	210
5.9.5	Success & Drivers	210
5.10	Analytical Generalization of Cross-case.....	213
5.10.2	Proposition Identification of primary stakeholders.	217
5.10.3	Proposition Optimisation and promotion of drivers for improved performance.....	220
5.10.4	Structure and effectiveness of monitoring and control systems.....	222
5.10.5	Second-level Analysis Differences of Key Components	224
5.10.6	Identification of primary stakeholders.	227
5.10.7	Proposition Optimisation and promotion of drivers for improved performance.....	229
5.10.8	Structure and effectiveness of monitoring and control systems.....	232
5.11	Analytical Generalisation Outcome	236
5.12	Chapter Summary and link.....	237
6	CHAPTER SIX: FRAMEWORK DEVELOPMENT AND VALIDATION.	238

6.1	Chapter Overview	238
6.2	Framework Development Process	238
6.3	Development and Framework structure	238
6.3.1	Framework Structure to align with the aim of the study.	241
6.3.2	Framework Definition.....	241
6.3.3	Interrelationships between Framework Components and Understanding its Complexity.	243
6.4	Data Collection.....	247
6.4.1	Analysis of Interviewee.....	249
6.5	Summary, Finding and, Validation Outcome.	254
6.6	Development of Framework	255
6.7	Chapter Summary and Link.....	256
7	CHAPTER SEVEN: CONCLUSION, RECOMMENDATION AND FURTHER STUDY	257
7.1	Chapter Overview	257
7.2	Research Thesis Summary.....	257
7.3	Reflection on the Objectives	260
7.3.1	Reflection of Objective One	260
7.3.2	Reflection of Objective Two	261
7.3.3	Reflection of Objective Three & Four.....	262
7.3.4	Reflection of Objective Five	263
7.3.5	Reflection of Objective Six.....	263
7.4	Contribution to Knowledge	264
7.5	Strategic Distribution of Research Outcomes.....	265
7.6	Recommendation	266
7.7	Areas Further Research Study Required	268
7.8	Chapter Summary	269
8	REFERENCES	271

9 APPENDICES.....	279
-------------------	-----

List of Tables

Table 1.1: Comparison between Research Aims, Object and Question.....	7
Table 4.1: Philosophical Stance Sequence	88
Table 4.2: Research Purposes and Implemented Question type.	94
Table 4.3: Characteristics between Survey, Experiment, and Case Study Strategies	95
Table 4.4: Qualitative and Quantitative Comparaison Source : (Robson, 2002)	104
Table 5.1: Project A – Respondent's ProfileSource: Author (2024).....	128
Table 5.2: Summary of the Findings – Project A	145
Table 5.3: Project B – Respondent's Profile	150
Table 5.4: Project C – Respondent's Profile.....	180
Table 5.5: sample Initial Codes Generated in NVivo	204
Table 5.6: Description of emerging themes from this study.....	205
Table 5.7: Summary of the Relationship Across the Three Projects (A, B & C)	207
Table 5.8: Similarities of key components	215
Table 5.9: Primary Stakeholders Identification	217
Table 5.10: Drivers for improved performance	220
Table 5.11: Monitoring and control systems	222
Table 5.12: Implementation of Policies Challenges.....	225
Table 5.13: Differences in primary stakeholders	227
Table 5.14: Drivers for improved performance	229
Table 5.15: Differences in monitoring and control systems across the projects	232
Table 5.16: Third-level Analysis Contract Document	234
Table 6.1: Background Details of Expert Interviewed.....	249
Table 7.1: Attainment of Objectives	259

List of Figures

Figure 3.1: Systems approach Infrastructure Delivery.....	58
Figure 3.2: Interdependency Planning and Management Framework	60
Figure 3.3: 3 – Phase Project Life Cycle for Infrastructure Projects	61
Figure 3.4: Viable Infrastructure Delivery Model	63
Figure 3.5: The NISMOD Structure	65
Figure 3.6: Conceptual Framework	68
Figure 4.1: Research Methodology Mind Map.....	82
Figure 4.2: Deductive Research Approach Source: Azungah (2018)	91
Figure 4.3: Inductive Research Approach Source:Azungah (2018)	92
Figure 4.4: Abductive Research Approach Source: Azungah (2018)	92
Figure 4.5: Case study research and application	98
Figure 4.6: Cases Selection Criteria (Source: Author).....	101
Figure 4.7: Screenshot of Teams (CMC) Online Discussion Forum.....	110
Figure 4.8: NVivo Snapshots.....	113
Figure 4.9: Research Process (Source: Author).....	114
Figure 4.10: Criteria for Validity of Qualitative Research.....	116
Figure 5.1: Image of Project A – Urban Renewal Project Source: Author, 2024	126
Figure 5.2: Stakeholders in affordable housing projects.....	131
Figure 5.3: Causes of Failure in Affordable Housing Projects	133
Figure 5.4: Implementation Challenges of Affordable Housing Projects	136
Figure 5.5: Members of the Monitoring and Control Team	142
Figure 5.6: Image of Project A – Urban Renewal Project.....	149
Figure 5.7: Strategies for Affordable Housing Policy	159
Figure 5.8: Affordable Housing Implementation Challenges – Project B.....	165
Figure 5.9: Image of Project C – Low Housing Project Source: Author, 2024	179
Figure 5.10: Affordable Housing Schemes Policies.	182
Figure 5.11: Stakeholders in affordable housing projects.....	184
Figure 5.12: Role of stakeholders in affordable housing projects implementation...187	
Figure 5.13: Six step of the reflexive thematic analysis process.	204
Figure 6.1: Developing Framework process for FAHPI.	239
Figure 6.2: Initial Hand Sketches of the Framework.....	240
Figure 6.3: Framework Component and their Interrelationships.....	243
Figure 6.4: Developed Framework	255

Dedication

I wish to Dedicate my PhD thesis to my Father, God Almighty, maker of the heaven and the earth, for His unmeasurable Love, care and Protection-through

Declaration

This dissertation is presented in accordance with the University of Salford's guidelines for attaining a PhD degree through research. Throughout this study, certain research outcomes were disseminated through peer-reviewed conference papers, as documented in Appendix 8.5.

Furthermore, the author affirms that none of the content referenced in this thesis has been utilized to support an application for any other degree or qualification from this university or any other educational institution.

Acknowledgement

First and foremost, I extend my deepest gratitude to Almighty God through our Lord Jesus Christ and the Holy Spirit for guiding me throughout this arduous academic journey.

I am profoundly indebted to my dear Parents, Chief and Mrs G. G. Ogbugo, and my Siblings, whose unwavering support has been my anchor through the highs and lows of my academic pursuit.

To my cherished Friends and steadfast pillars of support, Dr (Alhaji) Usman Markafi, Dr David Ecumene, Dr Waheed Ariyo, Dr Mustapha Munir, Dr Gloria Unoma Ene, and my dear adopted Sister, Dr Angiba Lamptey-Puddicome, your encouragement and camaraderie have been invaluable.

I especially appreciate Evangelist Chigaekpebi Obioha and Hajiya Aisha Makarfi ceaseless prayers. I am also grateful for the immense love, support, and guidance from Chief and Mrs. Ferdinand Alabraba, Mallam Muritala and Hajiya Rakiya Aliyu. My heartfelt thanks extend to my esteemed supervisors, Prof Peter McDermott and Dr Gregory Watts, for their unwavering support, mentorship, and words of encouragement. Their expertise, dedication, and belief in my abilities have been instrumental in navigating this challenging journey.

I deeply appreciate the interview participants for sharing their invaluable insights, which enriched and significantly shaped my research.

This journey has been both intellectually stimulating and emotionally profound. With the unwavering support of these remarkable individuals, I am empowered to realise my aspirations of making meaningful contributions to the Nigerian Construction Industry and advancing the academic discourse.

Implemented Abbreviations

NCI- Nigerian Construction Industry

AEC- Architecture, Engineering and Construction

IDS -Infrastructure Delivery Systems

PP-Public and Private

FHA- Federal Housing Authority

SHD Sustainable Housing Development

SDG- Sustainable Development Goal

LDC- Least Developed Countries

HCV-Housing Choice Vouchers

LIHTC- Low-Income Housing Tax Credit

FAHPI-Framework affordable housing Policy Implementation

GDP-Gross Domestic Product

UKRIO- United Kingdom Research Integrity Office

FCT-Federal Capital Territory

PPP- Public Private Partnership

GPHCDA- Greater Port Harcourt City Development Authority

FIDSAHP-Framework Infrastructure Delivery systems for Affordable Housing Policy

Definition of Keywords

This section provides clear and concise definitions of the key terms and concepts used throughout your research. Defining these terms is essential for ensuring that readers have a common understanding of the context and scope of your study. Thus, here are the definitions of key the keywords.

Housing

Housing includes different types of living spaces, from permanent homes to temporary shelters, and is often discussed in relation to affordability, market conditions, and efforts to address shortages.

Affordability

Affordability refers to the extent to which something, such as housing, is within an individual or household's financial means, based on their income and other expenses.

Policy

Policy in this context, is a set of guidelines, principles, or plans that govern decision-making and actions to achieve specific goals within an organisation, government, or society.

Policy implementation

Policy implementation is the process of implementing a policy by translating its objectives and plans into concrete actions, often involving various stakeholders and resources.

Low-income

The "low-income group" consists of individuals or families earning below a regionally specific threshold, often qualifying them for government assistance and social services.

1 CHAPTER ONE: RESEARCH INTRODUCTION

1.1 Chapter Overview

This chapter provides an overview of the study from the researcher's perspective. It briefly introduces the research and its background, exploring the challenges of infrastructure delivery systems for affordable Housing in Nigeria's construction industry. It then explains the rationale and motivation for conducting this research. Additionally, this chapter presents the research aim, objectives, and questions that guided this study. Furthermore, the chapter outlines the scope of the study, contribution to knowledge, structure of the thesis, and the concluded with the summary of the chapter sections.

1.2 Background of the study

The Nigerian Construction Industry (NCI) plays a vital role in the country's economic development and growth. It contributes significantly to the Gross Domestic Product (GDP) and provides employment opportunities for many of the population (Afolabi et al., 2019). However, despite its importance, the NCI faces numerous challenges that hinder its performance and effectiveness in delivering infrastructure projects, including affordable housing (Ogunde et al., 2017).

The NCI faces various issues and challenges that impede its ability to meet the growing demand for infrastructure and housing. These challenges include Inadequate policy implementation: The lack of comprehensive policies and inconsistent regulations has created an environment where housing projects struggle to maintain long-term viability (Jiboye, 2011; Shaibu & Abdullahi, 2018). Corruption and lack of transparency: Public procurement and policy implementation cycles in the NCI are often associated with corruption and a lack of transparency, leading to the failure of affordable housing programs (Adabre, 2021; Awuzie & McDermott, 2019). Insufficient monitoring and evaluation systems: The absence of effective monitoring and evaluation systems contributes to the failure of policy implementation and exacerbates housing problems (Ezennia, 2022). High construction costs: The rising costs of construction materials and labor have made affordable housing projects less viable and more challenging to execute (Amusan et al., 2018). Skilled labor shortage: The

NCI faces a shortage of skilled professionals, which affects the quality and timely delivery of housing projects (Oseghale et al., 2015).

The challenges faced by the NCI have far-reaching consequences for the delivery of affordable housing and the overall well-being of low-income earners. The inadequate implementation of housing policies and the prevalence of corruption have led to a widening gap between housing supply and demand, resulting in a severe housing deficit (Iheme, 2017). This shortage of affordable housing has forced many low-income earners to live in substandard conditions, compromising their health, safety, and quality of life (Ezennia, 2022). Moreover, the lack of effective monitoring and evaluation systems has resulted in the abandonment of numerous housing initiatives, leading to a waste of resources and further exacerbating the housing crisis (Odoyi & Riekkinen, 2022). The high construction costs and shortage of skilled labor have also made it difficult for developers to deliver affordable housing projects, limiting the available options for low-income earners (Amusan et al., 2018; Oseghale et al., 2015).

Given the severe consequences of the challenges faced by the NCI, there is an urgent need to address these issues and develop sustainable solutions for affordable housing delivery. Failure to tackle these challenges will continue to hinder the progress of the NCI and negatively impact the lives of low-income earners (Ezennia, 2022). Addressing these issues requires a comprehensive approach that involves investigating existing policies, promoting effective stakeholder engagement, improving policy monitoring and evaluation, and developing a robust Infrastructure Delivery Systems (IDS) framework (Iheme, 2017; Odoyi & Riekkinen, 2022).

The current research aims to fill the existing gap in understanding the root causes behind the inadequate policy implementation of affordable housing in Nigeria, particularly in the South-South region. By critically examining the perennial issues of affordable housing programs and exploring the challenges and barriers associated with implementation among stakeholders, this study seeks to contribute to the development of sustainable solutions (Ezennia, 2022; Nwosu-Iheme, 2021).

The study will investigate existing policies, stakeholder engagement, policy monitoring and evaluation, and the development of an IDS framework for affordable housing. These aspects are proposed as essential steps toward addressing the housing

shortage and improving the living conditions of low-income earners in the South-South region of Nigeria (Iheme, 2017; Odoyi & Riekkinen, 2022).

The Nigerian Construction Industry plays a crucial role in the country's development but faces significant challenges that hinder its ability to deliver affordable housing effectively. The current research addresses the NCI's inadequate policy implementation, corruption, lack of transparency, insufficient monitoring and evaluation systems, high construction costs, and skilled labour shortage.

Despite investigating these issues and developing a robust IDS framework, this study seeks to contribute to sustainable solutions for affordable housing delivery in the South-South region of Nigeria. Addressing these challenges is essential for improving low-income earners' living conditions and promoting the NCI's overall progress. Therefore, considering all viewpoints, there is a critical need to discuss the rationale behind the study.

1.3 Rationale of the study

Inadequate policy implementation of IDSs for the provision of affordable housing has continued to be a major concern to government, stakeholders, and citizens of every nation, particularly in the developing countries. This is a fundamental issue in many nations like Nigeria where the national governments are still combating with inability to create effective housing policies that both meet the demand for adequate, resilient and affordable housing in cities (Monroy et al., 2020). Iheme (2017) recommended that additional research should be conducted to investigate different aspects related to the public housing system in Nigeria. This means that research focusing on various factors such as the structure of government policies, the availability and cost of land, and urbanisation would contribute towards creating effective housing policies to meet the challenges of affordable housing in Nigeria. Additionally, these factors were identified in the previous study as potential barriers to affordable public housing. The aim of this research would be to enhance the provision of low-income public housing in Nigeria. The gap in policy implementation of affordable housing has caused a lot of hardship especially on the low-income earners (Aurand et al., 2023; Olsen, 2003). For instance, study by Jamaludin et al. (2018) revealed that many households in the low-middle income range face difficulties to find housing that can satisfy their needs and budget.

Similar view from (Awuzie et al., 2019) shows that people from deferent culture have continued to lament simply because of failure of infrastructure investments including affordable housing in those climes to contribute to socio-economic upliftment for most of the populace.

Providing adequate and affordable affordability housing has received importance recognition at both national and international scenes. It is one of the primary goals of housing policy in every nation. In addition, provision of affordable housing is a core national policy objective, and has also risen to the fore in international frameworks through the 2030 Agenda for Sustainable Development and the New Urban Agenda (Monroy et al., 2020). This is in agreement with urban Sustainable Development Goal (SDGs, namely SDG11) – and of the New Urban Agenda during the 2016 United Nations Conference on Housing and Sustainable Development (Croese et al., 2016).

Despite the efforts of government at all levels, lack of affordable housing provision remains an issue that has posed severe challenges for the sustainability of urbanization in different parts of the world including Nigeria (Oni-Jimoh et al., 2018). Several reasons have been advanced including improper planning, lack of relevant skills and finance and poor regulation (Awuzie et al., 2019). Consequently, much research has been conducted in line with the major challenges of housing deficits and some are ongoing. However, there is dearth of research in addressing the issues of improper policy implementation of IDSs for the provision of affordable housing in Nigeria.

Hence, the need to develop a viable IDS framework for effective implementation of affordable housing policy is crucial and applicable approach to achieving housing policy goal for affordable housing (Jiboye, 2011). The objective of a viable IDS framework for the effective implementation of affordable housing policy is to ensure that all facets of affordable housing policy are workable and properly integrated through substantive components of the policy (Daud et al., 2017). Failure to address housing issues especially in the study area will affect not only the long-term economic development but will also increase the urban development fatality rate and intergenerational equity (Jamaludin et al., 2018). Currently, the deficit of infrastructure assets in Nigeria has significantly weakens the nation's prospects for economic growth and development as such, something drastic must be done, such as monitoring and control (Ebuh et al., 2019; Nedozi et al., 2014; Owolabi-Merus, 2015). Furthermore,

the inability to address the challenge of affordable housing options through the proposed viable IDS policy framework will disproportionately affect low-income earners and vulnerable populations, exacerbating existing social and economic inequalities. (Birla, 2021). In conclusion, the context of this research looks at how the IDS Function as a system to put housing policies into action in Nigeria. The IDS is like a tool that connects these policies to how they affect the availability and affordability of houses for people in need. It is important to have affordable housing because it does not just give people a place to live, but also help reduce poverty, improve health, and make lasting improvements in developing countries. Now that we understand why affordable housing matters in Nigeria, let's explore the questions, goals, and objectives of this research.

1.4 Research Questions

In the previous section, the research rationale and justifications were discussed. This highlighted affordable housing policy challenges and the importance of providing affordable housing within Nigeria. However, to understand this research the following questions arise:

- What are the key challenges stakeholders face in implementing existing policies and reforms of affordable housing schemes?
- Who are the key stakeholders involved in delivering affordable housing schemes in Nigeria?
- How can existing drivers be harnessed and new drivers promoted to achieve better performance in the delivery system?
- How is the monitoring and control system structured in delivering affordable housing schemes?
- What are the underlying causes of failures in the infrastructure delivery system for affordable housing schemes, and how do they impact project outcomes?

1.5 Aim and Objectives of the Research

1.5.1 Aim

This research aims to develop an Infrastructure Delivery Systems Framework for Affordable Housing Policy Implementation in Nigeria. The following objectives have been set to achieve this aim.

1.5.2 Objectives

1. To examine the challenges of existing policies and reforms of affordable housing schemes
2. To identify the Factors influencing the adoption of IDS within the Nigerian AHP
3. To examine the drivers of the delivery system of affordable housing schemes
4. To Investigate the monitoring and control system in the delivery of affordable housing scheme
5. To assess the cause of the failure of the infrastructure delivery system for affordable housing schemes.
6. To develop a framework for an affordable housing Policy Implementation scheme in Nigeria.

1.6 Comparison Between Research Aims, Objectives and Questions

The connection between the underlying research questions, objectives and the Aim of the study is laid out in **Error! Reference source not found.** as shown below:

Table 1.1: Comparison between Research Aims, Object and Question

Source: Author (2024)

S/N	OBJECTIVES	AIMS	RESEARCH QUESTIONS
1	To examine the challenges of existing policies and reforms of affordable housing schemes	The aim of the study is to develop an Infrastructure Delivery Systems Framework for Affordable Housing Policy Implementation in Nigeria.	OBJ1: What are the key challenges faced by stakeholders in implementing existing policies and reforms of affordable housing schemes?
2	To investigate the roles of stakeholders in the delivery of affordable housing scheme.		OBJ2: Who are the key stakeholders involved in the delivery of affordable housing schemes in Nigeria?
3	To examine the drivers of delivery system of affordable housing schemes.		OBJ3: How can existing drivers be harnessed and new drivers promoted to achieve better performance in the delivery system?
4	To examine the monitoring and control system in the delivery of affordable housing scheme		OBJ4: How is the monitoring and control system structured in the delivery of affordable housing schemes.
5	To assess cause of failure of delivery system of affordable housing schemes		OBJ5: What are the underlying causes of failures in the infrastructure delivery system for affordable housing schemes, and how do they impact project
6	To develop a Conceptual framework for the delivery of affordable housing schemes in Nigeria.		OBJ6: How can a framework for implementing affordable housing policies in Nigeria be developed, and why is such a framework necessary to address current challenges in the sector?

To understand complex research, you need a clear map of key components showing how everything connects to goals and methods. Essentially, the main goal, the research question, and the specific objectives are combined to guide the entire project effectively, which is crucial for successful knowledge generation. A well-designed research framework, the decoder ring for this symphony, painstakingly dissects the relationships between these parts (Verschuren & Doorewaard, 2010). Stated otherwise, it acts as a lens through which we may see how the research question, which is the main inquiry of the study, influences the research target, which is the main goal of the investigation. This framework helps us understand how the research topic becomes the motivation for carrying out the investigation. It turns the goal from a distant concept into a concrete road plan that directs everyone.

However, the research aim is more than just a destination; it is a dynamic process characterised by pursuing a solution to the research question. The research objectives connect the question and the aim, which act as well-placed stepping stones (Bryman, 2016). These objectives establish the activities and data-collecting techniques required to get at the desired information, translating the substance of the issue into tangible actions and methodologies. By comprehending this complex interaction illustrated in the research framework, we can recognise how the research topic

functions as the impetus for the conduct of the study. Doing so turns the goal from an abstract ideal into a concrete road plan that directs research at every turn and guarantees that information is acquired effectively and specifically (Creswell & Creswell, 2018).

1.7 Research Propositions

Below is the research proposition for the study:

1. A combination of factors, including limited financial resources, bureaucratic inefficiencies, and challenges in land acquisition significantly hinders stakeholders' effective implementation of affordable housing policies.
2. Government bodies, local communities, private sector developers, and international donors are the key stakeholders in the delivery of affordable housing schemes in Nigeria. Each plays a unique role that influences the project outcomes.
3. Enhancing public-private partnerships, increasing financial incentives for developers, and improving regulatory frameworks can effectively harness existing drivers and introduce new drivers to boost the performance of the affordable housing delivery system.
4. The monitoring and control system in the delivery of affordable housing schemes is often fragmented and under-resourced, leading to discrepancies in project accountability and quality control across different phases of housing development.
5. Inadequate planning, corruption, and a lack of technical expertise are the primary causes of failures in the infrastructure delivery system for affordable housing schemes, significantly impair housing projects' sustainability and effectiveness.

1.8 Scope of the study

The scope of this study is centred on developing an Infrastructure Delivery Systems Framework for implementing the Affordable Housing Policy in Nigeria, with a specific focus on enhancing the delivery of affordable housing within the context of the country's South-South region (Ezennia, 2022; Iheme, 2017). To achieve this overarching aim, the research has established several specific objectives that guide

its direction and maintain a clear focus throughout the investigation (Odoyi & Riekkinen, 2022).

At the core of this study lies the theoretical construct of the Infrastructure Delivery System (IDS), through which the implementation of affordable housing policy is examined. The IDS is conceptualised as encompassing all potential inter-organizational relationships among stakeholders procuring and delivering housing infrastructure (Awuzie & McDermott, 2019). To provide a structured approach to analysing the dynamics within Nigeria's affordable housing sector, the research draws upon the theoretical underpinnings of systems thinking and the viable system model (VSM) (Awuzie & McDermott, 2015).

Geographically, the study focuses on the South-South region of Nigeria, a choice motivated by the area's economic significance, particularly its contribution of over 80% of national oil revenues and the pressing housing needs of its low-income population (Iheme, 2017). This region's unique socio-economic and geographical characteristics make it an ideal case study for examining the implementation of affordable housing policy (Nwosu-Iheme, 2021).

Furthermore, the study is designed to span four years, from 2021 to 2024, allowing for an in-depth exploration of the IDS framework's application to affordable housing policies and facilitating a comprehensive analysis of the data gathered over time (Creswell, 2014). The primary respondents of this study are low-income households in the South-South region, which are most severely affected by housing inadequacies (Ezennia, 2022). By addressing their struggles to access affordable housing, the research aims to contribute to policy solutions that can mitigate these challenges. Additionally, stakeholders involved in the housing delivery process, including government bodies, NGOs, and private sector participants, will play an integral role in the study (Odoyi & Riekkinen, 2022).

Methodologically, the study adopts a qualitative approach, employing multiple case studies to gather rich, in-depth data (Yin, 2018). This approach is supported by both primary sources—such as interviews, surveys, and focus groups—and secondary sources, including policy documents and academic literature (Creswell, 2014). Through these comprehensive methodologies, the study aims to validate the developed Framework for Affordable Housing Policy Implementation (FAHPI) while

acknowledging the inherent limitations and boundaries of the defined scope (Saunders et al., 2019).

1.9 Methodology

This exploratory, interpretivist study employs an abductive approach and qualitative methodology to investigate the research objectives and questions, enabling rich insights into the topic. Multiple case studies were selected based on theoretical replication, considering stakeholder involvement, location, contract strategy, and client organization structure. Qualitative data was collected through interviews, documents, and computer-mediated communication techniques, with purposive snowball sampling for participant selection. Qualitative content analysis was conducted using NVivo software. Ethical issues were addressed by maintaining confidentiality, obtaining informed consent, and adhering to UKRIO standards. Validity and trustworthiness were ensured by addressing credibility, transferability, dependability, and confirmability. The study faced political and socio-economic constraints limiting discussions on failed housing projects' root causes and affecting the interviewing process and case study selection.

1.10 Structure of the Thesis

The thesis is structured into seven chapters, each playing a crucial role in achieving the overall aim and objectives of the study. This systematic organisation allows for a comprehensive exploration of the research topic, guiding the reader through the various stages of the investigation.

Chapter One: Introduction

This chapter introduces the research, providing an overview of the study's background, rationale, and motivation. It presents the research aim, objectives, and questions, setting the foundation for the subsequent chapters. The chapter also outlines the scope and limitations of the study, the expected methodology, and the anticipated contribution to knowledge. Finally, it outlines the thesis structure and each chapter's summary.

Chapter Two: Literature Review

The purpose of Chapter Two is to provide a comprehensive overview of the research topics using secondary data sources. It builds on the introduction of Chapter One and prepares the ground for the analysis of Chapters Three and Four, which will lead to the final discussion in Chapter Five. The first three chapters correspond to the research framework's main elements. They examine the different dimensions of each element and develop a specific approach to address the research question and integrate each element into the study context. This chapter covers various topics such as the general background, the size, the demographics, the concepts, the drivers, the challenges, and the definitions of the key terms relevant to this study. Moreover, it conducts a literature review on all factors aligned with the study objectives. Finally, the chapter summarises and links the main points to the next chapter.

Chapter Three: Research Conceptual Framework.

Chapter Three aims to develop the study's conceptual framework, which serves as the theoretical foundation for the research. This chapter provides an in-depth analysis and evaluation of existing frameworks related to affordable housing implementation and Infrastructure Delivery Systems (IDS) within the Nigerian construction industry context. By adapting and integrating relevant elements from these frameworks, the chapter establishes a robust conceptual framework that guides the subsequent stages of the research, summarising the key points and linking them to Chapter Four: Justification of the research methodology adopted.

Chapter Four: The Research Methodology

The research presents the research philosophy, methodological choice, technique, and procedure for the data analysis and justifies the stance adopted for the study. It also discusses the various research methods for data collection and the method of analysis adopted for the study with such a design.

Chapter Five: Data Analysis and Findings-Intra-case and Cross-case Synthesis

Chapter Five of the research report is dedicated to Data Analysis and Findings. This chapter is divided into Part 1-Intra-case and Part 2-Cross-case Synthesis. The first part of this chapter involves an intra-case analysis of the data obtained from multiple

units of analysis. This analysis allowed for the generation of new propositions, where applicable, which would be tested at the cross-case analysis stage of the research.

Chapter Six: Framework Development and Validation

Chapter Five of the research report outlines the initial stages of developing and validating the IDSF. These stages involve an analysis of data collected from experts through unstructured and semi-structured interview sessions, as well as online discussion forums. The data obtained from these sources was used to refine the conceptual framework developed through the literature review. Furthermore, the data provided a platform for further validation of the framework through focus groups of construction industry professionals.

Chapter Seven: Summary, Conclusion and Recommendations.

The chapter details the approach used to verify the framework and the step-by-step method used to construct the best practice framework for the study. It is concerned with the cross-case analysis and the testing of theories established during the intra-case analysis stage.

1.11 Chapter Summary

This chapter provides a comprehensive review and introduction to the study, including the rationale, research questions, aims and objectives, methodological research steps, and scope of the study. It also highlights the study's importance, and the chapter concludes with an overview of the thesis structure. Hence, the subsequent chapter focuses on the existing literature about the execution of infrastructure delivery for Affordable Housing policy within the Nigerian context, with a specific focus on the south-south region of the country.

2 CHAPTER TWO: LITERATURE REVIEW

2.1 Chapter Overview

This chapter provides a literature review of three main topics including, the Nigerian construction industry, infrastructural delivery system, and affordable housing. In the Nigerian Construction Industry section, the current state-of-the-art literature relevant to Nigerian history, size, demographics concepts, characteristics, and challenges were highlighted. Furthermore, the challenges of IDS and affordable housing policy would be presented. In this regard, the subsequent sections present the overview of Nigeria construction industry.

2.1.1 Overview of Nigeria

2.1.1.1 Size and Demography

The total land area of Nigeria is 923,770 km² (356,658 mi²) and the entire length of the littoral is 853 km (530.0 mi). This land area covers approximately 133% of Texas' total land area. Thus, Nigeria is the 32nd largest country in the globe and one of the largest in Africa (worldometer, 2024).

Nigeria, situated in West Africa, boasts the continent's highest population and largest economy. According to the World Bank, as of 2021, Nigeria had an estimated population of 211,400,708 and a GDP of approximately \$440.78 billion. (Bank, 2023) There are three levels of governance in the Federal Republic of Nigeria: The federal level, the state level, and the local level. Since 1999, the country has maintained a democratic structure with three departments of government: the executive, the legislative, and the judiciary. In addition, with Abuja serving as the Federal Capital Territory (FCT), Nigeria has an existing structure of 36 states and 774 local government units (Musa & Jacob, 2021). In particular, studies on Nigeria demography shows that there is a high chance of Nigeria's population growing (Bloom et al. (2010). This means that Nigeria economic might have significant record of growth both from the point of view of population change and human capital. Thus, the need for affordable housing might be impacted as well.

2.1.1.2 History of Nigerian Construction Industry

The Nigerian construction industry has long been recognized as a catalyst for economic growth. In recent years, the sector has significantly contributed to the country's GDP, with a 3.72% share in the third quarter of 2022 (National Bureau of Statistics, 2022). The industry's importance in driving economic development has been consistently acknowledged over the past decade (Ogbu, 2018), the private sector's engagement in the construction, procurement, and services whereby considering the citizens has expanded dramatically in Nigeria. (Akinsiku et al., 2014) revealed that transportation projects, such as the construction of roads, railroads, airports, healthcare sector, the educational sector, the provision of power and water, and environmental and natural resource projects, are the infrastructural projects best suited for Public Private Partnership (PPP) in Nigeria. The South-South geopolitical zone is the western part of Nigerian and according to statistics is the largest city in Africa. Contrary to that, (Akinsiku et al., 2014) study focusing on Port Harcourt (located at the southern part of Nigeria) revealed that, educational projects, real estate building, and the provision of leisure, tourism cultural amenities are less suited to PPP implementation through Infrastructural Delivery systems model in the construction sector. This means that the nature / type of project has significant impact on the suitability of PPP in Nigeria.

2.2 Implementing Socio-Economy Development Policy of Nigeria

2.2.1 Policy

There is no single generally accepted definition of the term 'policy' according to Waller et al.,(2009). However According to the Concise Oxford English Dictionary (12th edition), the definition of "policy" is "a course or principle of action adopted or proposed by an organization or individual" (Stevenson & Waite, 2011, p. 1106). On the contrary, Titmuss (1974) described the term "policy" as the rules that control all actions taken to meet the defined target. Accordingly, Olowu (2019) stated that "public policy" can refer to well-defined, goal-oriented policies. This means that it is a well-thought-out strategy developed and produced through a specified political procedure, or a solution put into action by a certain authority in response to issues felt to exist within a certain

community. Additionally, Awuzie (2014a) cited by Hill and Hupe (2002) for his definition of policy as follows:

“...a purposive course of action followed by an actor or set of actors in dealing with a problem or matter of concern. Public policies are those policies developed by governmental bodies and officials.”

Osman (2002) asserts that the formulation of public policy entails a lot of intricate procedures. These processes, according to his definition, are heavily influenced by a variety of social, political, and environmental elements. Waller et al. (2009) concur with the White Paper for Government Modernization's (1999) account of how policies are made:

“The process by which governments translate their political vision into programs and actions to deliver outcomes, desired changes to the real world.”

In addition to being interactive, policymaking has been defined as having an inherent level of technical depth that allows for consideration of larger contributions from society (Sabatier, 1991a; Birkland, 2010). Public policies must aid the target group and implementing actors/agencies during the implementation phase to be successful and result in favourable results for the intended target group. Considering this, insufficient housing policy, projects or initiatives for low-income households can result in housing shortages and overpriced homes.

Certain characteristics may be deduced as necessary to the ongoing development of the guidelines from these many definitions of the term "policy" that have been provided. Policies should be plans of action created by the government to offer specific advantages to the populace and enforced by statutory public entities. It also emphasizes the fact that stakeholders engage at different levels within the policymaking and implementation cycle in order to generate recommendations (guidelines) for tackling issues that are unique to a chosen sample of a certain community. The reason why the stakeholder's engagement should be at different levels is because of the nature of the Nigerian government structure (i.e. having three levels including federal, state and local). Additionally, it implies that for policies to serve their intended goal, they must be put into action. As a result, policy implementation

plays a crucial part in getting policy results to the intended audience. In this case, the policy implementation for affordable housing within Nigeria.

As discussed in the previous section, a policy is a formal declaration by a government or organization that sets forth its objectives, strategies, and the means to achieve them in various critical areas such as housing, health, population, education, and energy. It serves as a guiding document, establishing a framework for decision-making and allocation of resources, including financial, human, and material, to address specific issues or challenges within society or the organization's scope. These policies are crucial for shaping and implementing comprehensive plans that impact the well-being and development of a community, nation, or institution.

According to Ibimilua (2011), a policy is a prescription of fundamental rules for the conduct of people in an organization. It is seen as a planned or agreed course of action based on some basic principles aimed purposely at addressing some fundamental problems. Ibimilua (2011) further defined policy as a planned course of action that is meant to serve as a guide for future decisions and activities in a public or private enterprise. Sulyman (2000) similarly, defined a policy as a statement on paper by the government or an establishment regarding the way and manner in which identified problems are to be solved. Policy encompasses important decisions that delimit action but does not specify time (Agbola, 1998). In this same vein, policy can be seen as a statement of intent that indicates some goals and objectives, as well as how to achieve them (Ibimilua, 2011). Policy plays a crucial role as it serves as a bridge between the government and the governed, facilitating communication and understanding between the two entities (Ikechukwu & Chukwuemeka, 2013). It acts as a tool through which the governed can analyze and evaluate the activities and decisions of the government (Olaiya, 2016). (Balchin, 1995). Most policies promulgated by an organization were centers on the need to communicate their intentions to the public. As such, organisations such as health, housing, economic, agriculture, political, industrial, and transportation make clear policy statement of a course of action as a means of addressing certain fundamental problems. For a policy to be referred to as a good policy, it must possess certain fundamental elements which include the following but not limited to: justice, authority, equality, rights, efficiency and public interest. Everyone in an organization is guided by the policy in which it is established in order to achieve the organization outlined objectives. As such, a policy should clearly state the expected

goals, aims and objectives for which it is established with distinct elements. In the housing sector, there are policies that are set up to address housing problems by government of any nation. One of such housing policy initiatives is the Policy on Affordable Housing.

2.2.1.1 Policy Formulation and Policy Implementation

Policy formulation and policy implementation are two crucial stages in the policy-making process that are interrelated and interdependent. Policy formulation involves the development of a policy based on the identification of a problem, the analysis of various solutions, and the selection of the most appropriate course of action (Anderson, 2015). This stage is characterized by the involvement of various stakeholders, including government officials, experts, interest groups, and the public, who contribute to shaping the policy's content and direction (Howlett, 2019).

Once a policy has been formulated, it enters the implementation stage, where the policy is put into action to achieve its intended objectives. Policy implementation is the process of translating the policy into practice, involving the allocation of resources, the establishment of organizational structures, and the coordination of various actors (Hill & Hupe, 2014). The success of policy implementation depends on factors such as clear policy objectives, adequate resources, effective communication, and the commitment of implementers (Sabatier & Mazmanian, 1980).

However, the relationship between policy formulation and implementation is not always straightforward. Policies may face challenges during implementation due to various factors, such as ambiguity in policy design, lack of resources, resistance from stakeholders, or changing political and social contexts (Matland, 1995). Moreover, the implementation process may reveal unintended consequences or shortcomings in the policy design, leading to the need for policy adaptation or reformulation (Pressman & Wildavsky, 1984).

To ensure effective policy implementation, it is essential to consider implementation challenges during the formulation stage and to involve implementers in the policy-making process (Elmore, 1985). Additionally, monitoring and evaluation mechanisms

should be put in place to assess the policy's progress and impact, enabling policymakers to make necessary adjustments and improvements (Dunn, 2018).

In conclusion, policy formulation and policy implementation are closely linked stages in the policy-making process. The success of a policy depends on how well it is designed and how effectively it is implemented. By considering implementation challenges during formulation, involving relevant stakeholders, and monitoring and evaluating the policy's progress, policymakers can enhance the likelihood of achieving desired policy outcomes.

- Policy formulation in the construction industry

Policy formulation in the construction industry involves the development and creation of a set of rules, guidelines, and strategies that govern various aspects of construction projects and business operations. These policies are typically designed to ensure safety, quality, compliance with regulations, and efficient project management. The affordable housing policy objectives are achieved through programs focused on offering low-cost housing to low-income earners.

These housing policy programs aim to deliver affordable housing and fulfil the housing requirements of low-income individuals through federal, state, and local government initiatives. In Nigeria for instance, the inability of the state-led housing system to meet the needs of low-income housing led to the creation of a new housing policy in 2006, this was as a result of the existing policy that could not meet its objectives.

The policy as well covers a wide range of issues, including environmental concerns, such as waste management, sustainable building practices, and resource conservation, quality control policies, managing and mitigating risks associated with construction projects, including insurance and liability. Furthermore, the primary goals of the 2006 housing policy were to enable both the government and the private sector to drive the delivery of affordable housing. Policy formulation is crucial in the construction industry to ensure that projects such as affordable housing, telecommunication, transports are completed safely, efficiently, and in compliance with relevant laws and regulations.

- Policy formulation in an affordable housing scheme

Affordable housing policy is a written document which usually comprises specific objectives, strategies and programs aimed at solving housing problems or meeting with the ever-increasing housing needs and demand of a country (Ezenagu, 2016). Policy formulation in affordable housing schemes is intended to address the ever-growing housing needs of a nation. These policies are the blueprints that guide a country's efforts to provide adequate, high-quality housing to its citizens, all while keeping affordability in mind. Affordable housing policy formulation involves a multidimensional approach with sets of clear objectives at tackling housing issues, such as homelessness, overcrowding, and housing affordability. These objectives serve as a roadmap to ensure that the housing needs of diverse populations are met.

2.2.1.2 Policy Implementation

Deleon (1999:314) defined implementation as "what happens between policy expectations and (perceived) policy results". According to O'Toole (2000), it is the type of activity that arises between the formation of the government's apparent purpose to execute or not perform a certain duty and the impact of that intention in the real world.

Implementation theory, a branch of economic theory, thoroughly investigates the relationship between normative objectives and the institutions established to achieve them (Palfrey, 2014). In their contribution to the discourse on implementation, Hill and Hupe (2014) argue that the concept of policy implementation encompasses various intricate change-related processes in which government intentions are transformed into programs and regulations designed to ensure implementation and specific, desired outcomes. This perspective is further supported by Pülzl and Treib (2017), who emphasize the importance of understanding the complex dynamics involved in translating policy objectives into tangible results.

The earlier stance taken by Parsons (1995), who said that analysing a change's implementation process is akin to doing so. In their ground-breaking study on policy implementation, Mazmanian and Sabatier (1983:20–21) offer a more concise and in-depth description. Implementation was defined as;

“...carrying out of a basic policy decision, usually incorporated in a statute but Which can also take the form of important executive orders or court decisions. Ideally, that decision identifies the problem to be addressed, stipulates the Objectives to pursued,

and in a variety of ways, structures the implementation Process. The process normally runs through a number of stages beginning with Passage of the basic statute, followed by the policy outputs (decisions) of the Implementing agencies, the compliance of target groups with those decisions, The actual impacts-both intended and unintended- of those outputs, the perceived impacts of agency decisions, and finally, important revisions (or attempted Revisions) in the basic statute”.

The precise nature of this definition stems from the fact that it treats implementation as a measure that stands alongside policy formulation and continuity of policy outcomes and has the potential to promote the achievement of reliable results when properly managed and regulated. It also represents the implementation as a complex multi-actor activity involving many actors/agencies, target groups and implementing agencies.

2.2.1.3 Policy Implementation as Multi-layered, Interorganizational Activity

Multiple organizations undertake various roles throughout the policy implementation process, as highlighted by several scholars in the field of policy studies (Hill & Hupe, 2014; O'Toole, 2017; Lundin, 2022). These organizations collaborate, coordinate, and sometimes compete to ensure the successful translation of policy objectives into concrete actions and outcomes (Hanf & O'Toole, 2005; O'Toole & Montjoy, 2021). The involvement of numerous organizations in the implementation cycle adds complexity to the process but also provides opportunities for leveraging diverse expertise and resources (O'Toole, 2021). Hill and Hupe (2002) stated that when an action depends on several links in the execution chain, the degree of interagency cooperation required to establish those links must be extremely close to one hundred percent if multiple small deficits result in a cumulatively large deficit. The observation is not only an indication that several organizations are dominant in the implementation process, but it also highlights the imperative nature of cooperation and synergy between these parties for prevention. To support this claim, Lundin (2007), in his assessment of the impact of collaboration on implementation success, states that collaboration is important to policy implementation success. Understanding the implementation process as a process that occurs across multiple levels and between multiple organisations is crucial for acquiring a thorough understanding of such processes.

2.2.2 Concept of Housing and Housing Policy

Idrus and Ho (2008) established that housing is the provision of shelter that comprises of physical structure, economic opportunities, and social services. Similarly, Ibimilua (2011) viewed housing as a fundamental necessity and is essential to the growth of any nation. Housing is not just a shelter as it encompasses other things such as utilities and services that make life convenient and comfortable for humankind. It also includes the development of an environment that consists of dwellings, places of job opportunities, security, and infrastructure such as access roads, electricity, and water. These are viewed as facilities, equipment, services as well as other devices needed for safe, decent, and healthful living (Oluwande, 1983). In a way, the state of housing can be used in measuring the health of a nation (Coolen, 2006).

A good policy in any nation should be able to drive and ensure provision of adequate and affordable housing for its citizenries. The major targets of the housing policy in most countries of the world are the provision of decent and affordable housing for urban and rural dwellers, finance of housing programs, implementation of land use decrees, financial empowerment of construction industries, gender equity, and special considerations for the homeless and the physically challenged individuals (Ibimilua, 2011). In Nigeria, government had initiated numerous housing programs in recent past. One of such is housing policy initiatives of the Policy on Affordable Housing that was initiated in 1979 by the Shehu Shagari Administration. The policy stated well but was unable to meet the nation's housing needs due to poor implementation. Similarly, the Nigeria government promulgated the National Housing Policy in 1991 in order to tackle the housing problem in the urban and rural areas of the country. The objective of the policy according to Sanusi (1997) include the following:

- To serve as a framework to satisfy the housing needs of the society.
- To serve as a framework for evaluating the contributions of every segment of the society (in housing delivery).
- To serve as the background against which the success of various housing programs and housing goals could be measured.
- To provide a rational basis for governmental actions

However, the provision of affordable housing has encountered severe challenges from both public and private sectors. The challenge stems from finance and availability and accessible financial provision. Housing in many countries, especially in the developing nations requires a higher level of financial commitment and, in most countries, its provision and distribution is through the private sector (Lowe, 2011). Robert et. al. (1993) attributed the problems with the implementation of the Nigerian National Housing Policy as inadequate funding, shortage of subsidies and credit facilities, high rate of inflation, high interest rate, inadequate infrastructural supply, and poverty.

2.2.3 The Key Elements to Affordable Housing Provision

The key elements to sustainable housing provision fall into six major themes adapted from the literature (Bredenoord et al., 2014; Warnock and Warnock, 2008, Choguill, 2007; Agunbiade et al., 2013; Ogu and Ogbuozobe, 2001). They consist of planning; land; labour; infrastructure; finance; and building materials. Together they form the core elements required to drive low-income housing provision. Furthermore, these elements were established by the UN-HABITAT (2008) work 'enabling shelter strategies in developing countries and Odunsi (2018) as fundamental to a sustainable housing provision.

2.2.3.1 Planning

Planning within the context of this research is what Odunsi (2018) refers to as authorizations, and what the UN-HABITAT (2008) refers to as legal, regulatory, and administrative framework for the implementation of housing policies. planning is a fundamental concept that affordable housing provision hinges on. According to Daly and Lund (2020) housing policies aim to address multiple interconnected issues, such as increasing the availability and affordability of housing, improving housing quality, and exploring the relationships between housing and urban planning policies. These policies also seek to tackle wider societal concerns, including homelessness, the utilization of private housing, urban regeneration, market revitalization, and the environmental consequences of housing development. In most cases, the success of housing delivery is reflective of the level of planning. Often, planning for housing requires an interdisciplinary structure that is periodically reviewed. A major factor in

determining the success of planning is the need to base planning parameters on practical realities. Bredenoord and Verkoren (2010) noted that a sustainable urban planning occurs at two levels; at the city or municipal level; and at the neighborhood or project level. Planning at the city level includes developing the long-term vision of the city on housing provision and function of neighborhoods, land-use structure, construction of infrastructure and public transport systems, as well as other basic amenities. Naidu, (2008) asserted that well-planned cities have a better chance of extending infrastructural services to developing areas that incorporate the urban poor.

2.2.3.2 Land Access

Land access plays a crucial role in facilitating home provision. Odunsi (2018) stated that the importance of land in housing provision is the first step to housing provision. Therefore, unrestricted access to acquire land for development is typically considered a requirement for affordable housing project development. Payne, (2004); Ikejiofor, (2005); Jibril, (2006) established that “the ownership, or occupation, of land has conferred great economic and political power’.

Additionally, Kok *et al.* (2014) established that the cost of land is a key driver of the economic value and attractiveness of a site. The authors also contend that land-use regulations drive the physical form of the cities, amenities available, spatial patterns of physical development, and the housing/transportation cost of inhabitants. Furthermore, Satterthwaite (2009) claims that often the tussle for decent shelter by the urban population is ‘a struggle for land – either getting land on which to build or getting tenure of land already occupied’. The stringent guideline to accessing secure land tenure impedes access to low-income groups. This is compounded by excessive regulations that impact negatively on the housing market in several ways. Some of these include an increment in the finished house prices due to charges incurred in form of fees, extending the time to complete the housing-production process due to the imposition of minimum standards. This therefore result in higher costs incurred by developers and transferred to consumers (Monkkonen, 2013). These impediments continue to influence the growth of informal or illegal land markets that contribute to the rise of slums, and to land speculation (Desai and Loftus, 2013).

2.2.3.3 Infrastructure

Infrastructure is a fundamental component of housing development, hence labelled a key element to affordable housing for low-income groups. Infrastructure is identified as an important catalyst for economic growth with substantial contribution to Gross Domestic Product (GDP) of a country (Esfahani and Ramirez, 2003). Findings show that infrastructure has a positive impact on production costs, the productivity of private inputs, and the rate of return on capital (Agénor and Neanidis, 2011). Srinivasu and Rao (2013) also argue that many studies have established the positive impact infrastructure development has on the quality of housing and level of economic development of a country. In addition, the impact of infrastructure provision on human health and well-being is documented in literature (Agénor and Neanidis, 2011).

2.2.3.4 Finance

Availability and access to housing finance remains a key element to low-income housing, especially on the developing countries. According to Warnock and Warnock (2008) housing finance is a binding constant that must be addressed before the markets can sustainably provide adequate housing. Renaud (2009) noted that an effective housing finance system is a prerequisite for the construction and maintenance of well-designed cities. The absence of a sustainable housing finance system, as evident in most developing countries forms the genesis of progressive mode of development on housing and infrastructure. Often these progressive developments take long periods to complete and in the process for housing schemes, they lead to slumming. This study however refers to housing finance as all forms of financing that is required for an adequate provision of affordable housing development. This includes development finance for infrastructure provision by government and private sector; development finance for housing delivery by either/or government and private housing providers; and development finance to capitalize/recapitalize mortgage, microfinance, and other finance institutions for adequate and sustainable access to housing mortgage and loans by low-income groups.

2.2.3.5 Building Materials

Building materials play a vital role in property development, and their use is essential in all fields of engineering (Udosen and Akanni, 2010). The Penguin Dictionary of Building defines building materials as the materials used to make building elements, such as cement, sand, and timber (Grmela, 2020). Studies review that building materials are a fundamental component to low-income housing (Adedeji, 2012; Taiwo and Adeboye, 2013).

In this same vein, Bredenoord et al. (2014) contend that the cost of constructing a dwelling is dependent on the cost of building materials. Similarly, Iwuagwu and Iwuagwu Ben (2015) highlight the significance of building materials by arguing that access to local building materials could reduce housing costs by 60 percent. Furthermore, in the agreement Olotuah (2002) noted that lowering the cost of building materials could significantly influence the cost of constructing dwellings. Alibaba and Özdeniz (2004) contend that the choice of building materials affects the sustainability of a construction project. Validating this, Zhou et al. (2009) affirmed that the choice of construction material in a building project plays a vital role in the life cycle of the project. In most developing countries, the construction sector relies on the importation of building materials and that contributes to rising cost of building materials (Atolagbe, 2009). Major building materials used for the provision of housing include but not limited to cement, timber, roofing sheets, gravels, and steel rods. In recent years, there has been a substantial increase in the worldwide demand for materials like cement, steel, and roofing sheets (Otunola, Musa and Lukman, 2021). Otunola *et al* (2021) classify building materials into three main groups: traditional, modern or conventional, and innovative. Traditional materials, such as laterite and bamboo thatch, are produced using rudimentary technology and have low-quality performance. This has led to the development of conventional materials, including cement, blocks, reinforced steel bars, concrete, steel, glass, and corrugated roofing sheets, which are expensive, scarce, and heavily reliant on imports. The third category, referred to as innovative, involves research and development efforts to improve upon traditional and conventional materials and find alternatives to imported materials. Aliyu, Kasim, & Martin (2011) suggest that improving the local production building materials could help solve Nigeria's housing problems.

2.2.3.6 Labour

The construction of dwellings relies on both human and technological resources for them to be built. The reliance of dwellings mostly on human labour for construction is most peculiar to developing countries like Nigeria. This is in part due to the limited level of the use of technology in the construction process. Hence, provision of affordable housing for low-income housing provision relies on both skilled and unskilled labour for its delivery. This also include the services of; intellectual labour such as Architects, Builders, Engineers, Planner and Surveyors; skilled labour such as carpenters, plumbers, brick layers, iron-benders, and painters; as well as unskilled labour such as labourers. These groups of human resources are indispensable to the process of affordable housing construction, from planning to execution. Labour is a vital part of construction and particularly housing because it plays an important role in project cost and time overrun (Hiyassat et al., 2016).

2.2.4 Affordable Housing Development in Nigeria

According to Chapman and Lombard (2006), Nigeria has tried almost all of the housing approaches that were popular in the 1960s, 1970s, and 1980s, including slum clearance schemes, which caused much distress and social dislocation, sites-and-services schemes, which attempted to open up new land and subdivided into a number of residential plots so that it may be distributed hence, slums or squatter areas can be improved thus, they attempted, often with the help of local communities, to integrate new infrastructure and services into already disordered and congested towns. In addition, with the publication of the Habitat I Journal in 1976 and the oil boom of the 1970s and early 1980s, Nigeria embarked on an enormous public construction initiative. According to Chapman and Lombard (2006), the Federal Housing Authority (FHA) was founded under the Second National Development Plan (NDP) in 1973 to coordinate, develop, and implement the Government Housing Agenda at low, middle, and high income levels. Despite several obstacles and a large housing supply-demand imbalance, it has fulfilled this goal (Raji 2008). Over 37,000 housing units were provided in all states (Ademiluyi & Raji 2008). However, (Ebekozen, 2020a); Ebekozen et al. (2021) confirmed that the main issues facing cities in developing nations, including Nigeria, are insufficient housing and other basic infrastructure services. Housing shortages in emerging cities may have been exacerbated by the

fast rise in rural-to-urban migration and dense urban populations. The World Bank (2003) recognized various interrelated elements responsible for developing countries' poor infrastructure facilities, including ongoing economic and political challenges, growing development unsuccessful infrastructure delivery systems, and so on. Poor governance and inadequate expenditure in the infrastructure. The obstacles to housing provision, such as insufficient financing, bribery and corruption within the housing ministry, political interference, and inadequate policy supervision and enforcement, have been recognized by various scholars in the field of housing studies.(Makinde, 2014; Odoyi & Riekkinen, 2022) According to Norris and Van Es (2016) studies, there are several key challenges facing the community's current housing system. These include poor infrastructure, difficulty accessing the housing fund, high building costs, a lack of available land, a hostile government policy, and an unfit affordable housing system.

2.2.4.1 The roles of government in the provision of affordable housing

Government plays vital responsibility in the provision of adequate and affordable housing. As a result, the government establishes policies and initiatives to ensuring its relevance and sustainable housing schemes. The need for government control in housing is mainly for two reasons; the high importance of housing to people and the fact that provision of housing at decent price and quality cannot be achieved in an unregulated market (OECD, 2001). When comparing housing to other segments of the economy, it is more subjects to several issues and challenges in such that federal or central government often find it difficult to cope with. As result, state and local government, and even private individuals need to contribute their quoter if the issues of housing must be resolved. In view of this, government (federal or central government) should focus on providing a favorable and enabling investment climate, infrastructure, and mortgage insurance to first time home buyers and low-to middle income families.

2.2.4.2 Global perspective of Housing Problem

The housing problem cuts across both developing countries and developed counterpart. Viewing the problem of housing from both perspectives, it is complex,

perennial and universal in nature (Ibimilua, 2011). These problems are not static but vary in frequency and magnitude in different parts of the world. The problem in rural areas of developing countries is mainly quality issues while quantity or adequacy is a major concern in urban areas (Ibimilua, 2011). The problem is complex in the sense that it occurs in many dimensions and is perennial in that it occurs all the year round. Its universality stems from the fact that it is global. In addition, it is predominant in the developing countries but traces of it can still be found in the developed countries.

Several factors are responsible for housing problems and can be categorized into: environment, people, and institutional frameworks. Onibokun (1983) similarly classified the housing problems in Nigeria into four categories, namely: qualitative, quantitative, socioeconomic, and psychological. Slum formation in urban centres has also been identified as a major problem associated with housing. Findings show that, these problems can further lead to other problems which include social problems, suburban sprawl, traffic congestion, indiscriminate waste disposal, urban decay, as well as aesthetic pollution of the living environment (Ibimilua, 2011).

2.2.5 The Need for Affordable Housing

Housing affordability is defined as a household's ability to satisfy its periodic mortgage demands without jeopardising its health or decreasing other fundamental family necessities (Agbola 2005). Housing is a combination of shelter and environment, and it comprises the housing unit, site plan, and facilities within the environment. However, the United Nations estimated Nigeria's population in 2005 to be 141 million, with a predicted increase to 289 million by 2050. A similar estimate was made by the United States Census Bureau, which anticipated that Nigeria's population would grow by 264 million by 2050. If these projections come true, Nigeria would be the eighth most populated country in the world, according to Kabir and Bustani (2010).

This ongoing population growth places a strain on the provision and delivery of basic utilities and infrastructure to all urban dwellers. In most cities, the observed housing distribution problem is not limited to number but also to the poor and the quality of available housing units. (Kabir and Bustani, 2010). Overcrowding is also an issue in many available dwellings, which are largely occupied by the poor. Urbanisation has also increased demand for housing, which is one of the primary difficulties confronting

Nigeria's shortage of affordable housing. Uncontrolled expansion poses a significant challenge to housing and urban development sustainability in numerous developing nations (Jiboye, 2011). Additionally, urbanization and sluggish economic growth have amplified the problems related to affordable housing in Nigeria. (Ahmed & Sipan, 2019)The deficit in housing, especially for low-income individuals, has intensified due to population growth, rising real estate prices, migration from rural to urban areas, reduced municipal services and infrastructure, and insufficient enforcement of public housing regulations and initiatives.

Household size, educational background, employment, the time of a family's life cycle, availability to a source of institutionalised housing financing, and culture are possible additional influences. As a result of population expansion and fast urbanisation brought on by rural-to-urban migration, rising construction supply prices, and ineffective housing policies, there is a significant demand for homes for low-income workers. Municipal facilities and services plus ineffective public housing policies and schemes

The National Housing Policy of 2002, which has as its goal the provision of affordable housing, outlines Nigeria's efforts to provide housing for all, however these efforts have so far just been empty words. Financial constraint programmes prevent people with low incomes from saving money to purchase or build a house because they are unable to meet their family's demands for food, clothes, transportation, and other necessities.

The majority of low-wage people rarely ever have a bank account; as a result, they are not even qualified for bank loans or mortgages. They typically do not qualify for workplace loans since their salary is insufficient to cover the required repayments.

2.2.6 Housing Problem in Nigeria

Studies show that housing situation in Nigeria is severe and worsening with current situation more severe than it was a decade ago (Ikejiofor, 2014). A study conducted by Ukoje and Kanu (2014) on the challenges to housing provision by the private sector in Abuja suggests that poor planning structure and suboptimal supervision coupled with a weak operational structure is limiting the private sector from realizing its full potential. According to the authors, these problems are further compounded by bureaucratic delays in seeking developmental approvals for developers, relocations,

or compensations to beneficiaries. Ikejiofor (2014) stated reason for the inability of the private sector to reduce the housing deficit in Nigeria as an “unrestrained profit motive” by housing developers, aided by an unstructured mode of provision. Abubakar (2014) posits that, to alleviate the housing challenge of low-income groups in Nigeria, debates and policy initiatives must not only focus on an enabling approach but also on pluralist approaches that embrace the reality of the majority.

2.3 Policy Decision Makers in Nigeria

Affordable housing is a critical issue in Nigeria, and the policy decision-making process is crucial in addressing the housing deficit. In Nigeria, policy decision-makers in the housing sector operate at various levels of government organizations and the private sector. Akinwande and Hui (2024) emphasize the importance of understanding the actors involved in deciding policies related to affordable housing in developing countries, particularly in Nigeria. According to (Ahmed & Sipan, 2019); Ibem (2011) research findings reveal important policy implications for the housing sector. Most notably, the study demonstrates that Public-Private Partnership (PPP) housing initiatives operate under temporary policy frameworks, primarily through Memoranda of Understanding (MOU) and Development Lease Agreements (DLAs). Furthermore, these frameworks vary significantly across different PPP projects within the study region. This article explores the six levels or categories of policy decision-making related to affordable housing in Nigeria: Federal Government, State Government, Local Government, Housing Agencies and Corporations, and the Private Sector. By examining the roles and responsibilities of each level, we can gain insights into the complex dynamics of affordable housing policymaking in Nigeria.

2.3.1 Federal Government:

The Federal Government of Nigeria plays a pivotal role in the formulation and implementation of affordable housing policies. The Federal Ministry of Works and Housing, headed by the Minister, is the primary policy-making body responsible for developing and executing housing policies and programs at the national level (Akinwande & Hui, 2024). The Ministry works in collaboration with other relevant

agencies, such as the Federal Housing Authority (FHA), to ensure the effective delivery of affordable housing.

The Federal Executive Council (FEC), chaired by the President, is the highest decision-making body in the executive branch. The FEC is responsible for approving housing policies and budgets proposed by the Ministry of Works and Housing. The approval process involves a thorough review of the policy proposals to ensure alignment with national development goals and feasibility within available resources.

The Federal Government also plays a crucial role in allocating resources and providing funding for affordable housing initiatives. Through budgetary provisions and the establishment of specialized housing funds, such as the National Housing Fund (NHF), the government aims to mobilize financial resources to support the implementation of housing policies. Furthermore, the Federal Government sets the overall framework and guidelines for housing development, including building codes, land use regulations, and infrastructure standards, which guide the activities of other actors in the housing sector.

2.3.2 State Government:

State Governments in Nigeria have a significant responsibility in the implementation of affordable housing policies within their respective states. Each state has a Ministry of Housing or its equivalent, headed by a commissioner, which is tasked with developing and executing state-specific housing programs and initiatives (Akinwande & Hui, 2024).

The State Governors have the authority to initiate and approve housing projects and programs that align with the state's development priorities. They play a key role in allocating land for housing development, providing infrastructure, and creating an enabling environment for private sector participation in the housing sector.

State Housing Corporations and Agencies, established by the state governments, are responsible for the actual implementation of housing projects. These agencies work closely with the State Ministries of Housing to ensure the efficient execution of housing programs, including the construction of housing units, provision of infrastructure, and allocation of housing to beneficiaries.

State Governments also collaborate with the Federal Government and other stakeholders, such as private developers and financial institutions, to leverage resources and expertise for the delivery of affordable housing. They may enter into public-private partnerships (PPPs) or joint ventures to attract private investment and accelerate housing development. Additionally, State Governments are responsible for monitoring and evaluating housing programs within their jurisdictions to assess their effectiveness and make necessary improvements.

2.3.3 Local Government:

Local Governments in Nigeria play a vital role in the implementation of affordable housing policies at the grassroots level. They are the closest tier of government to the communities and are well-positioned to identify the specific housing needs and challenges faced by the local population (Akinwande & Hui, 2024).

Local Government Councils, led by elected Chairpersons, are responsible for the actual implementation of housing programs within their jurisdictions. They work in collaboration with the State Ministries of Housing and other relevant agencies to ensure the effective delivery of housing services to the local communities.

One of the key responsibilities of Local Governments in affordable housing provision is the identification and allocation of suitable land for housing development. They work closely with traditional authorities and community leaders to secure land tenure and facilitate the acquisition of land for housing projects.

Local Governments also play a crucial role in the provision of basic infrastructure and services necessary for sustainable housing development. They are responsible for the construction and maintenance of access roads, drainage systems, water supply, and sanitation facilities within the local communities. Furthermore, Local Governments facilitate community engagement and participation in the planning, implementation, and monitoring of housing projects to ensure that they meet the needs and aspirations of the local population.

2.3.4 Housing Agencies and Corporations

Housing Agencies and Corporations play a vital role in the implementation of affordable housing policies in Nigeria. These entities, such as the Federal Housing Authority (FHA) and State Housing Corporations, are responsible for the actual execution of housing programs and projects (Akinwande & Hui, 2024).

The Federal Housing Authority (FHA) is a key agency under the Federal Ministry of Works and Housing. It is tasked with the implementation of housing programs at the national level, including the development of housing estates, provision of mortgage financing, and overall coordination of housing delivery. The FHA works closely with the Ministry to ensure that the implementation of housing policies aligns with the national housing agenda.

State Housing Corporations and Agencies, established by the state governments, are responsible for the execution of state-level housing projects and initiatives. These agencies work in collaboration with the State Ministries of Housing to plan, design, and construct affordable housing units. They also manage the allocation and distribution of these housing units to eligible beneficiaries.

Housing Agencies and Corporations often partner with private sector entities, such as developers, contractors, and financial institutions, to leverage their expertise and resources in the delivery of affordable housing. These partnerships help to accelerate housing development, improve the quality of housing units, and enhance the financial viability of housing projects.

Moreover, Housing Agencies and Corporations play a crucial role in the management and maintenance of the housing stock. They are responsible for ensuring the proper upkeep of the housing units, collecting rent or mortgage payments, and addressing the grievances of the residents. Regular monitoring and evaluation of the housing projects are also undertaken by these agencies to assess their effectiveness and identify areas for improvement.

2.3.5 Private Sector

The private sector plays a significant role in the delivery of affordable housing in Nigeria. Private sector actors, including developers, investors, financial institutions, and construction companies, bring in much-needed expertise, innovation, and resources to complement the efforts of the government in addressing the housing deficit (Akinwande & Hui, 2024).

Private developers and construction companies are involved in the actual construction of affordable housing units. They work closely with the government agencies and housing corporations to design and build housing projects that meet the required standards and specifications. Private developers also bring in innovative technologies and construction methods that can help reduce the cost and time of housing delivery. (Ayodele & Dominion, 2015)

Investors and financial institutions provide the necessary funding for affordable housing projects. They may invest directly in housing projects or provide financing to developers and homebuyers through various instruments such as loans, mortgages, and equity investments. The involvement of the private sector in housing finance helps to bridge the funding gap and increases the availability of capital for housing development.

Private sector actors also play a role in the management and maintenance of affordable housing units. They may be engaged by the government or housing agencies to provide property management services, ensuring the proper upkeep and functioning of the housing units.

Furthermore, the private sector contributes to the development of the housing value chain by providing various services and products, such as building materials, construction equipment, and professional services like architecture and engineering. The growth of the private sector in the housing industry creates employment opportunities and stimulates economic growth.

In conclusion, the policy decision-making process for affordable housing in Nigeria involves multiple levels of government organizations and the private sector. Each level plays a distinct and crucial role in the formulation, implementation, and monitoring of affordable housing policies. The Federal Government sets the overall framework and

provides funding, while the State Governments and Local Governments are responsible for the actual implementation and localization of housing programs. Housing Agencies and Corporations serve as the executing arms of the government, working closely with the private sector to deliver affordable housing units. The private sector, in turn, brings in essential expertise, innovation, and resources to complement the government's efforts.

However, effective collaboration and coordination among these various levels are crucial for the successful delivery of affordable housing in Nigeria. The government must create an enabling environment that encourages private sector participation and ensures the efficient utilization of resources. Policies should be evidence-based, responsive to the needs of the population, and supported by adequate funding and institutional capacity.

Addressing the affordable housing challenge in Nigeria requires a holistic and multi-stakeholder approach. By understanding the roles and responsibilities of each level of policy decision-making and fostering strong partnerships between the government and the private sector, Nigeria can work towards bridging the housing deficit and providing sustainable and affordable housing solutions for its citizens.

2.4 Challenges of Infrastructure delivery systems for affordable housing in Nigerian

One of the most pressing academic and policy concerns of the last few years has been the link between infrastructure development and economic growth (Ebuh et al., 2019). Economic growth means an increase in per capita income or GDP. Therefore, the issue of economic growth and its relationship with infrastructural development has been one of the top concerns of economists (Ebuh et al., 2019; Owusu-Manu et al., 2019). According to Gurara et al. (2018) and Ibragimova et al. (2021) from the perspective of policy, the renewed concern with infrastructure can be traced to the global developments that have taken place over the course of recent years. This has seen governments from both developed and developing countries seek private sector involvement in the development of national infrastructures (OECD, 2020). Investment in infrastructure comprises high-capital projects that are typically publicly owned and

regulated, and which form the backbone of a nation's production and distribution network.

The importance of infrastructure in supporting manufacturing and distribution has earned them the nickname "the hub" of the economy (Kavirathna et al., 2018; Munim & Schramm, 2018). Investing in the country's infrastructure would foster economic expansion, create new employment opportunities, and ensure that the vast majority of its residents have access to essential services (Gurara et al., 2018; Owusu-Manu et al., 2019). In Nigeria, the lack of national economic growth has also been attributed to poor infrastructural delivery in the end; state of the nation (Oyeweso, 2011). Without improvement to her infrastructure, Nigeria will not be able to maintain her current population and economic development (Nedozi et al., 2014). This recognition, by the Nigerian government with the plan of increasing the spending on infrastructure from \$23 billion in 2013 to \$77 billion in 2025 (Adeiza, 2021).

Years of neglect on the part of the Nigerian government have resulted in a negative impact on the country's social infrastructure sectors, including but not limited to energy, transportation, urban development/real estate, healthcare, water, agriculture, waste management, and information communication technology (Adeiza, 2021; Ebuh et al., 2019). When compared to other infrastructure sectors, transportation (roads, rail, seaports, and airports) has just as many gaps and faces just as many obstacles. Even though road transport makes up the lion's share (80%) of goods traffic in Nigeria, barely 20% of the country's road network is paved (Ebuh et al., 2019; Oyeweso, 2011). Lack of fundamental infrastructure including housing, healthcare, water, and waste management as well as other enabler infrastructures like ICT, hospitality, and industrial/commercial real estate is a problem in both rural and urban ecosystems across Nigeria (Adeiza, 2021).

2.4.1 Inadequate Government systems and Policy Implementation

The implementation of the infrastructure delivery system model (IDSM) cannot control the government policy or legal system because it is governed by the Nigerian government constitution. This risk can be mitigated by affecting the feasibility of projects in the Construction industry and determining whether regulations can be changed (Banda & Fulton, 2017). During the transition stage of a project, the FGN can

assure the owners that policy changes will not have an impact on their projects. However, identifying the fact that Nigeria has many regulatory bodies that oversee the construction and knowing that their job description defers.

2.4.2 Corruption and Organization in Nigeria

In many nations, corruption is a widespread mark in the construction sector. Nigeria is no different. The construction sector has a history of cooperation and dishonesty. To the citizens. Ebekozen (2020b) confirmed that most construction employees in Nigeria notably contractors, project managers, and architects, have seen or experienced some level of corruption and unethical behaviour "in the form of negligence, conflict of interest, collusive tendering, fraud, and bribery (Omopariola et al., 2019). According to the findings of an empirical survey done in China with government officers, practitioners, and academics, corruption vulnerabilities are primarily caused by inadequate regulatory structures. They are and are followed by a hostile ethical atmosphere inside the sector. According to the Fraud Triangle Theory, the significant components of corruption are "corruption opportunity, necessity or pressure, and rationalization. Ebekozen (2020b) Personal gain, time and money constraints, and a lack of education are the most typical causes of unethical action. Fraud and corruption in the industry have been mentioned.

The primary drivers of low construction output Corruption have severe social and economic consequences in developing countries, not just Nigeria, where project costs are exorbitantly inflated and unqualified contractors are appointed, resulting in severe social and economic consequences when infrastructure development is slow or, in the worst-case scenario, abandoned. Omopariola et al. (2019) highlight characteristics that may lead to corrupt behaviour and methods for preventing corruption. Public officials are suspected of being actively involved in corruption, particularly in unwelcome bribes or procurement manipulation. Other actors in the construction supply chain, such as professional consultants, are not immune to criticism.

2.4.3 Lack of transparency

The lack of transparency in the PPP system has been cited as another significant obstacle to acceptance by the public.(Amadi et al., 2014) Due to the lack of transparency in the essence of government policies in Nigeria, there is widespread mistrust of government policies. This has giving the public and other stakeholders abundant opportunities to influence the decision-making process constitutes transparency (Oyewunmi & Olujobi, 2016). **Effective governance requires strategic leadership across multiple levels, from national administration to project implementation (Ahmed & Sipan, 2019; Crawford & Helm, 2009)**, with institutional capacity being crucial for translating policy directives into measurable outcomes

2.4.4 Stakeholders Engagement

The term "stakeholders" refers to people, groups, or organisations that are involved in, impacted by, or have an interest in creating and implementing affordable housing initiatives in the southern region of Nigeria. These stakeholders include government agencies, policymakers, developers, investors, beneficiaries, community leaders, non-governmental organisations (NGOs), financial institutions, and the local community. Recognising and understanding the many stakeholders is critical for effective involvement and collaboration throughout the infrastructure delivery.(Abubakar et al., 2022) Stakeholder participation is critical to the infrastructure delivery system for affordable housing in Nigeria's south-south. Engaging stakeholders is critical for ensuring that all parties' interests and requirements are recognised and handled at each step of the project.(Nawushao et al., 2022). However, Nawushao et al. (2022) shows that The infrastructure delivery system for affordable housing in Nigeria's south-south area has a number of obstacles in terms of stakeholder engagement. These problems impede the successful implementation of infrastructure projects and the provision of affordable homes. Some of the major problems include a lack of knowledge among stakeholders, limited financial resources for stakeholder involvement, political and bureaucratic roadblocks, and insufficient communication routes. These issues must be addressed and overcome in order to develop meaningful stakeholder participation and ensure the effective implementation of affordable housing infrastructure.

2.4.5 Poor Power Supply

Understanding the fundamentals of power supply and distribution is critical in Nigeria because practically every initiative in the power sector is aimed at improving energy generation and supply. Nigeria currently has 14 electricity-generating power plants delivering electricity to the national grid. However, there is a shortage of electricity in the country, thus the Federation has launched an electricity reform program targeted at increasing the power supply and distribution of electricity. Consistent supply has been identified as one of the most important factors in the expansion and development of any nation, its importance as a factor in the Nigerian Industry and economic well-being cannot be overstated.

The Nigerian power industry is beset by several problems that have contributed to the country's sluggish economic growth and the construction industry's inability to meet the power demands of its citizens whereby affecting the construction industry in terms of the project life cycle. Despite the nation's abundance of human and natural resources, the Nigerian power industry is beset by these problems.

2.4.6 Unsatisfactory Professional Involvement

In Nigeria today, despite the high population, most projects suffer from inadequate skilled professionals to execute the project (Abisuga & Okuntade, 2020; Kululanga et al., 2001). Eja and Ramegowda (2020) cited reasons such as migration of skilled professionals to other countries as part of the contributory factors to the issues of incompetence in Nigerian projects, thus, causing an increase in the adoption of foreign professionals at high cost. Undeniably, a sound knowledge and application of project management significantly improve project success rates. However, government projects in Nigeria suffer from failure as a result of poor project management practices. For example, a study conducted by Eja and Ramegowda (2020) on project management practice in the Nigerian public sector showed a lack of core knowledge of project management tools such as Gantt charts among project professionals.

Socio-Cultural and Political Interferences Socio-cultural interferences through conflicts and incessant opposition to public projects have been established to confer

impediments to project completion in Nigeria. Similarly, the lack of continuity in projects established which has seen succeeding governments fail to allocate funds for completion of projects started by their predecessors (Abisuga & Okuntade, 2020). Such a lack of coherence in the political class towards development more so, the implementation of projects has seen projects fail across Nigeria. For instance, the Gas Revolution Industrial Park, Ogidigben in Delta State and the Gelegele Seaport in Edo State, have both failed to start despite the preparedness of the foreign and local governments towards the projects (Arogunjo & Markus, 2019). This is because of the conflicts and sabotage caused by them on the implementation of these two projects.

2.4.7 Inadequate Affordable Funding, Inflation, and Interest Rate

The Nigerian Construction Industry suffers a high impact on the exchange rate because most of the materials used in the implementation of building construction are sourced from other developed countries ever leaving cement that is sourced locally for Nigeria (Guo et al., 2019). According to Babatunde et al. (2018), foreign exchange risk is mostly experienced by project sponsors, particularly Nigerian Construction organizations and lenders because infrastructural delivery systems require foreign money to complete their operating activities. Currency fluctuations have an impact on the projects and organizational costs to effectively deliver any project.

2.4.8 Affordable Housing Location

Affordable Housing Location and the surrounding community are the social and physical factors that contribute to overall user happiness, which is influenced by these factors. The client's needs will either be stimulated or obstructed by the location.(Mallach, 2020). However, Nigerians living in public housing are dissatisfied due to the absence of essential infrastructure, security, and amenities (Ibem et al., 2013; Ogbu & Adindu, 2012).

The importance of neighbourhood and location as a critical success factor for affordable housing programs in Nigeria has been emphasized by Ajayi et al. (2021). This location was also discovered through a review of the relevant literature. It is of critical importance to the accomplishment of the implementation's goals.

As a result, location is a crucial element in the effective implementation of policies for inexpensive public housing (Ahmed & Sipan, 2020) particularly in the South-South area due to its unstable character in terms of security threats and the region's apparent infrastructure collapse. Additionally, it was quantified that the project site is one of the factors causing the region's ability to successfully execute affordable housing policies.

2.4.9 Legislative and Institutional Factor

Making land accessible for housing construction is difficult because of the Land Use Act of 1978, which gave the government ownership of all property. This is especially true for private investors who are hoping for better housing delivery. Since the Land Use Act of 1978 is outdated and has a negative influence on the housing market, lawmakers should develop a plan to review it. This would help the nation attract more foreign investment in the housing market.

2.4.10 Failed and Poor Infrastructure

Definition: Failure is an undesirable discrepancy between performance as intended and actual. When a component can no longer be relied upon to carry out its essential functions, it can be said to have failed.

Buildings are structures designed to provide shelter for human activities and possessions. To ensure best functionality and user satisfaction, they must be carefully planned, constructed, and maintained in harmony with their surroundings. Key considerations in building construction include structural integrity, durability to prevent failure or discomfort, and resilience against weathering, fire, and other potential hazards (Ching & Shapiro, 2014; Allen & Iano, 2019)

Therefore, the reason for failed and poor infrastructure according to President Umar Yar'adua of Nigeria showed a decade ago that the lack of competent project management techniques in the NCI is a significant obstacle to the country's vision 2020 development agenda. In agreement with President Yar'adua, the Nigerian Institute of Building, NIOB (2009), admitted that inadequate management is responsible for failed and poor infrastructure delivery in Nigeria, in addition to poor-

quality materials and quacks in the business. Resulting in the marginalization of the community, environmental damage cost-benefit, safety hazard to the host community, waste of time, poor use of resources, indigenous loss of land, and project abandonment.

2.4.10.1 *Education Sector*

Education sector is still the most powerful tool for social and economic advancement in any country, but the Nigerian government has not demonstrated enough dedication to the educational sector. The manifestation may be observed in the reduction in government financing for education, as well as the degradation and lack of facilities in Nigeria's universities, all of which have contributed to the academic demoralization of the student and the academics. Education at the university level is at the forefront of Nigeria's economy's production of skilled people resources. Despite efforts to establish Colleges of Education, Polytechnics, and Universities in Nigeria to prepare effective and capable students before graduation, a basic lack of funding has always existed as well as the insufficiency of funding for higher education in Nigeria. According to a study that was conducted in Nigeria to investigate the education system and deficiencies in construction management, it was discovered that Nigerian construction professionals combine construction management practices with their primary roles without being well equipped in the practice of construction management. Civil engineers were found to be the least equipped of all construction professionals.

2.4.10.2 *Affordable Housing Failed Site*

Project failure is not a new problem in Nigeria. Clough (1969) highlighted that the construction industry's reluctance to utilise established project management procedures in projects and programmes is to blame for the high percentage of business failure. Insufficient finance, under-estimation of project costs, insufficient cost accounting, and incompetent leadership have been blamed for more than 80% of all construction failures.

Failure and abandonment of construction projects sites are enormous challenges for Nigeria's construction industry and economy. The problems are huge, because resources that could be used elsewhere are wasted and tied down for a long time, and

the benefits that were supposed to come after the building is done as end users' acceptance are also lost. Most abandonments happen because the type of procurement system implemented, also the policy that is kept in place for the execution and delivery plan are not well applied.

According to literature, some of the causes of failed project in Nigeria are cost overruns, government policy, and government agent which are responsible insufficient preliminary information, poor project monitoring, faulty scoping, inflation, delay in settlement of interim payment because it is a collaborative partnership that will need all the parties to keep to their own side of the bargain, and bureaucracy. Likewise, Aibinu and Jagboro (2002); (Ebekozen et al., 2023) research found that projects' cost overruns, which occasionally result in abandonment, may be caused by insufficient information and analysis, variations, such as increased labour and equipment prices, fiscal and monetary policy decisions, and failure to make payments of contract documents. In addition, Ebekozen et al. (2023) confirmed that corruption and incompetence in the procurement ability of government organisations are major obstacles to the acquisition of infrastructure in many nations. Both emerging and developed countries are susceptible to corruption in the purchase of infrastructure projects. This extended to such diverse places as Hong Kong, Canada, Belgium, Italy, the Philippines, and South Africa.

The main goal of any contractor is to finish projects well enough that clients and end users are satisfied. If any or all the following happen to a project, it is said to have failed: Ebekozen et al. (2023) study found that a lack of competition and openness, misappropriation of public funds, bureaucracy that moves slowly and creates bottlenecks, and a lack of skills and expertise are the main causes of the problems. Others include forming cartels through collusion, bid-rigging, price-fixing, or other means, corruption, a lack of professionalism, unrestrained politics, theft from and improper use of public funds, incompetence on the part of tender boards, a lack of commitment to national service, and a lack of procurement capability on the part of government agencies.

In recent years, several infrastructure projects in Nigeria have been deemed failures, including the Ajaokuta Steel Complex, Lagos Metro Line, Lagos State Incinerating Plant, and various agricultural and housing initiatives such as the Green Revolution, Operation Feed the Nation, and affordable housing projects (Olalusi & Otunola, 2012;

Ogunlana & Olomolaiye, 1989). Other notable failed projects include the Port Harcourt Monorail, the first of its kind in Africa, the Greater Port Harcourt City Development Authority (GPHCDA), and numerous electricity projects nationwide (Obadote, 2009; Ogbonna & Okoroafor, 2004). For the purpose of this study

2.5 Reason for failed Affordable housing in Nigeria.

In recent years, there have been a lot of debates held on the topic of project failure by project management professionals all over the world, and several studies have concentrated on this topic as their primary area of investigation. Each project is different from the others because of the wide range of projects and industries involved in their delivery. This means that the factors that influence project delivery and ultimately cause failure to vary depending on the industry, the region, among other factors (Ahsan & Gunawan, 2010). However, recent research has shown that some causes of failure are consistent across initiatives. Some of these causes of infrastructure development failure in Nigeria.(Alteneiji et al., 2020)

2.5.1 Inadequate Project Resources

The research indicates that resources can be further divided into two categories: tangible resources and intangible resources (Gurara et al., 2018). Material, human, spatial, monetary, and other resources are all good examples (Akhund et al., 2018). Inadequate resources have been identified as a leading cause of project failure. Human capital is one example of such assets (Sanni-Anibire et al., 2022). For instance, a study by showed that big infrastructure projects often ran over budget and behind schedule because of a lack of trained labour during the construction phases (Zuofa, 2014). Inadequate labour (both skilled and unskilled) was found to be a primary cause of failure in a study of Malaysian construction projects (Johnson & Babu, 2020).

Furthermore, Rahim et al. (2016) found that more than 60% of the world's skilled labour shortage is located in developing nations. The shortage of skilled workers in Nigeria to the over-dependence in foreign or expatriate skills (Rahim et al., 2016). **While this may have been effective in the short run in alleviating the challenges of inexperience, however on the other hand this has caused concern regarding the potential difficulties that may arise from multicultural workers and different work principles (Adu & Opawole, 2020; Ojebode, 2016).**

The lack of a readily available essential material supply is often cited as another reason infrastructure projects in Nigeria fail (Sanni-Anibire et al., 2022). According to reports, the lack of availability of particular material resources is the primary cause of the numerous delays and cancellations of large infrastructure construction projects (Abdul Nabi & El-adaway, 2021). Additionally, insufficient financial resources and leadership are other important constraint to major infrastructural development in Nigeria (Zuofa, 2014).

2.5.2 Poor Project Planning

Undeniably, planning is a crucial part of any project and to achieve success, a proper plan must be made. Poor project planning is a common cause of failure. (Pinto, 2013) suggests that in an event that clear outlines of deliverables in a project are not stated while planning, the project might fail. This simply means that projects which commence without a proper plan and knowledge of the constraints involved are at risk of failing. Pourrostan and Ismail (2011) and Okwandu and Mba (2010) studies show that poor planning is a root cause of many project failures in Iran, this same problem was found in the Nigerian construction industry projects.

2.5.3 Consistent Changes in Project Scope

According to previous literature, one of the primary factors that lead to project failure is the change in project scope (Eja & Ramegowda, 2020; Taherdoost & Keshavarzsaleh, 2016). Many projects face changes in requirements before or during their execution. However, these changes are not often accomplished at the expected date of completion. Engwall (2003) suggests that evidence of this is predominant in IS projects. Although changes in project scope are generally considered as a characteristic of projects, they usually have a huge effect on the project. Ayal (2005) stated that changes in project scope significantly affect project cost.

On the other hand, persistent changes made to the established design, errors and defective designs pushed forward for implementation have been established to be closely impactful on the failure of projects in Nigeria (Dosumu & Aigbavboa, 2017). Similarly, design changes and errors increase the costs of the projects, delay

implementation and impede on the successful implementation of building projects in Nigeria (Dosumu & Aigbavboa, 2017; Onungwa & Uduma-Olugu, 2017). These 'design change' related impacts have led to project failures in several public projects across Nigeria. Anigbogu and Shwarka (2011) further said that up to 50% of all projects in Nigeria fail before commencement due to design issues.

2.5.4 Poor Communication

Various past studies have shown that efficient communication is a key element in a project as it aids in providing relevant information to all project participants, which is mandatory for delivery of successful project (Ikechukwu et al., 2017; Zulch, 2014). Hence, poor communication while planning and executing projects is likely to cause failure. According to Zulch (2014), communication is the process of collecting vital data, processing it and distributing the information to who and where it will be needed. Additionally, information can be defined as processed data which are presented in an understandable and meaningful format (Wickens & Carswell, 2021). Evidently, effective communication is the bond which aids a project team to achieve its goals while miscommunication poses a threat to project success. Hussain et al. (2020) identified the causes of poor communication in the construction industry as: linguistic barriers, cultural barriers, poor feedback, and unclear communication channels amongst others. The first two causes listed are dominant in projects that involve multicultural collaboration. Feedback shows how project participants react to certain information and task, and it is essential to complete communication. Emphasis on the quality and timing of the feedback is therefore very essential, especially when it requires immediate attention Günhan et al. (2012).

Lastly, communications channels which are not clear can pose a problem to the parties exchanging information, therefore an acceptable communication route for every project needs to be established (Zulch, 2014). Contractor-related causes of project failure have also been linked to the growing number of project failures in Nigeria. Poor contracting practices linked to poor contracts agreed upon with contractors, contractors' deliberate non-performance on awarded contractors, and embezzlement of allocated budgets to contractors have seen sub-par delivery of projects, late deliveries and the all-dreaded abandonment and failure of public projects across all

states within Nigeria. (Essien & Cyrus, 2019).The contracting challenges that contribute to failures have been linked to nepotism and tribalism in awarding of contracts in a rather biased manner which has led to high failures.

2.5.5 Lack of ability and Expertise

In Nigeria today, despite the high population, most projects suffer from inadequate skilled professionals to execute the project (Abisuga & Okuntade, 2020; Kululanga et al., 2001). Eja and Ramegowda (2020) cited reasons such as migration of skilled professionals to other countries as part of the contributory factors to the issues of incompetence in Nigerian projects, thus, causing an increase in the adoption of foreign professionals at high cost. Undeniably, a sound knowledge and application of project management significantly improve project success rates. However, government projects in Nigeria suffer from failure as a result of poor project management practices. For example, a study conducted by Eja and Ramegowda (2020) on project management practice in the Nigerian public sector showed a lack of core knowledge of project management tools such as Gantt charts among project professionals.

Socio-Cultural and Political Interferences Socio-cultural interferences through conflicts and incessant opposition to public projects have been established to confer impediments to project completion in Nigeria. Similarly, the lack of continuity in projects established which has seen succeeding governments fail to allocate funds for completion of projects started by their predecessors (Abisuga & Okuntade, 2020; Ojebode, 2016). Such a lack of coherence in the political class towards development more so, the implementation of projects has seen projects fail across Nigeria. For instance, the Gas Revolution Industrial Park, Ogidigben in Delta State and the Gelegele Seaport in Edo State, have both failed to start despite the preparedness of the foreign and local governments towards the projects(Arogunjo & Markus, 2019). This is because of the conflicts and sabotage caused by them on the implementation of these two projects.

2.6 The Outcome of failed Policy implementation infrastructure delivery in Nigerian

Certainly. The failure to implement infrastructure delivery policies in Nigeria has had a substantial negative impact on communities, notably in the built environment. Below is the following outcome:

2.6.1 Marginalize Community / Ignored

The lack of basic infrastructure because of failed policy implementation. This means that critical infrastructure projects are either delayed, inadequately completed, or abandoned. As a result, towns lack vital infrastructure like as roads, water supply systems, sanitary facilities, and consistent power. The absence of these fundamentals impedes community development and has a detrimental influence on quality of life. In addition, marginalized communities face a sense of social exclusion due to the neglect resulting from failed policies. They often feel ignored and discriminated against, leading to a breakdown of trust in the government and public institutions. This exacerbates social inequalities and can lead to civil unrest or protests. Furthermore, Effective urban planning and development are hampered by ineffective policy execution. This worsens living conditions and urban sustainability by causing overpopulation, informal settlements, and an inability to use land sustainably.

The outcome of Marginalize Community because of Inadequate policy implementation for the delivery of infrastructure in Nigeria has negative effects that extend beyond the facility's physical features. It has an impact on the socioeconomic, environmental, and cultural facets of marginalised communities, hence sustaining a cycle of inequity, underdevelopment, and poverty. To promote sustainable and equitable growth, addressing these concerns requires effective policy design, implementation, and community engagement.

2.6.2 Environmental Damage

Unplanned or poorly implemented infrastructure projects can have a negative impact on the environment. Improper waste management, pollution, and the destruction of

natural ecosystems have a negative impact on the environment, impacting the community's health and living conditions.

2.6.3 Implementation of Resources

Poor quality infrastructure is among the greatest restraints on Nigeria reaching its true potential. The problem affects all sectors, all regions of the country. Despite the abundance of both natural and human resources, the country is still restrained from enabling these factors to improve the lives of the citizens because of poor infrastructure. It is estimated that Nigeria will need to spend US\$3 trillion over the next 30 years to close its infrastructure gap (Bond, 2016). It is no surprise that Nigeria ranks consistently low on the Global Competitiveness Index, due largely to substandard infrastructure. Traditional project management approaches such as precise planning are increasingly becoming less effective for complex projects due to the way in which unstable systems change. The problem with a conventional project management approach is that projects are treated as 'islands' with closed boundaries, and rely on prescribed formula to manage them, leaving no room for flexibility and deviations from the project plan (Kapsali, 2011).

Kapsali (2011) study showed that conventional project management methods do not help deployment projects perform well, because they prevent innovativeness and communication through boundaries and restrain managerial action to handle change. This approach cannot accommodate complex projects, as they are characterized by boundaries that change in response to a changing environment. Systems' thinking is important in understanding complex projects. Traditional project management tools predict and provide' linear methods – brief, design, construct, and deliver-work when uncertainties are low. However, there is often uncertainty due to financial, technological, political, and other pressures, and consequent surprises. Focusing on the lowest possible cost as an indicator of value has not provided solutions to these problems in the past (Bond, 2016; Eja & Ramegowda, 2020). When faced with the variety of information, pressures, and crosscurrents present in every real-world management context, the art of systems thinking involves being able to detect an increasingly dynamic and/or complicated and subtle structure (Hartlieb & Silvius, 2016).

The art of systems thinking entails having the capability to recognize an increasingly dynamic and/or complicated and subtle structure when confronted with the diverse information, pressures, and crosscurrents that are inherent to any real-world management situation. In point of fact, achieving mastery in systems thinking as a management discipline entail identifying patterns where others simply see events and forces to which they must react. This is the essence of the discipline (Jackson, 2003). Systems' thinking helps project managers by: (i) establishing a framework for analysing and dealing with the challenges of ambiguity and multidimensionality; (ii) making it possible for various stakeholders to work together and contribute value; (iii) organising challenges to make it easier to think cohesively about them; (iv) having a greater understanding of how hard and soft systems interact with one another; and (iv) bringing a rigorous, practical approach to the task of determining which process holons are essential to and adequate for a project's success (Cobbinah et al., 2020).

Systems thinking is useful for construction projects because it enables the interests of all stakeholders to be included explicitly. This is vital in an increasingly demanding context with challenging requirements from multiple stakeholders. Systems thinkers seek to understand the different needs and values of each stakeholder and then create a new value network that synthesizes different needs and values in ways acceptable to all involved. Systems thinking is a discipline for seeing wholes. It is a framework for seeing interrelationships rather than things, for seeing patterns of change, rather than static snapshots. The growing complexity in the field of construction projects poses substantial management challenges (Hartlieb & Silvius, 2016; Jackson, 2003). Each construction project is unique in nature and operates in a complex environment which requires its own sets of managerial techniques (Gann & Salter, 2000). These managerial techniques span long time intervals, in some cases decades or more [4]. Large investments, at times billions of dollars, are involved. Debrah and Ofori (2001) and Rowlinson and Yip (2017) assert that construction project management is complex because of the extensive use of sophisticated plant, equipment, modern methods of construction, and multi-disciplinary and multi-tasked aspects of its team and workforce. It was further stated that these complexities are very high and could lead to cost escalation, delays, and technical problems which can undermine the financial feasibility of the project, jeopardize its completion, threatens the solvency of stakeholders, and sometimes provoke legal disputes.

2.7 Potential benefits

Despite all the challenges highlighted, the potential benefits of having a viable affordable housing policy justify the need to develop a framework to understand the implementation process. Similarly, efficient utilisation of infrastructure delivery systems can significantly enhance the quality of life for individuals and communities. These systems contribute to stabilising society and the economy by providing accessible inexpensive housing. Ultimately, they established conditions for sustainable long-term growth that are in line with the UN's Sustainable Development Goals (SDGs).

Firstly, infrastructure delivery systems help keep society stable by making sure everyone has access to safe and stable homes. People and families who live in cheap housing can become rooted in their communities, which helps them feel like they belong and encourages long-term involvement. This stability lets them make a bigger difference in the well-being of the community, which builds better social networks and encourages people to get involved in politics. Also, affordable housing lowers the chance of being forced to move or being homeless, which may negatively impact people, families, and communities.

Additionally, infrastructure delivery systems for affordable housing enhance economic prosperity through various means. By offering cost-effective housing choices, (Adabre & Chan, 2019; Ayodele & Dominion, 2015) these systems allow individuals and families to have more money to spend, which boosts local economies. Increased spending stimulates job creation and bolsters local businesses and services, so enhancing economic growth and development. Affordable housing decreases dependence on public assistance programmes, reallocating resources to other vital services and infrastructure projects. Communities with accessible and inexpensive housing options are more appealing to businesses and individuals, which enhances the local economy. (Ojebode, 2016)

Ultimately, infrastructure delivery systems for affordable housing provide a comprehensive method for tackling social and economic issues. These systems help establish successful and sustainable communities by fostering social stability and economic prosperity, which is in line with the goals of the UN Sustainable Development Goals. (SDGs).

2.8 Conceptualizing Procurement in Construction

Construction procurement encompasses the systematic acquisition of goods, services, and works essential for project delivery (Usman, 2022). In the context of affordable housing, it represents a complex interplay of processes spanning project inception to completion, including strategic decisions about contractor selection, supply chain management, and procurement methodologies (Adediran & Windapo, 2017; Usman, 2022). As Abdullahi et al. (2018) argue, effective procurement systems are fundamental to achieving project objectives within defined constraints.

2.8.1 Theoretical Underpinnings of Construction Procurement

The theoretical discourse surrounding construction procurement is predominantly anchored in Transaction Cost Economics (TCE) theory. Maqbool and Sridhar (2024) posit that organizations optimize procurement strategies by minimizing transaction costs while maximizing value creation. This theoretical framework is particularly pertinent in resource-constrained environments like Nigeria, where efficient resource allocation is crucial for affordable housing initiatives (Adeleke et al., 2018). Furthermore, Principal-Agent Theory provides additional insights into the contractual relationships and risk allocation mechanisms inherent in procurement processes (Kumar & Nair, 2021).

2.8.2 Procurement Approaches in Nigerian Construction

2.8.2.1 Traditional Procurement Method

The design-bid-build approach remains predominant in Nigeria's construction sector, characterized by its structured segregation of design and construction phases (Dada, 2021). While this method offers clear accountability frameworks and competitive pricing mechanisms, empirical evidence suggests significant limitations. Olanrewaju et al. (2021) identify several critical challenges, Prolonged project timelines due to

sequential delivery, Fragmented responsibility structures, Elevated risk of cost escalation, Complex documentation requirements

2.8.2.2 Design and Build Integration

Design and Build (D&B) methodology has emerged as an increasingly viable alternative, particularly in affordable housing projects. Babatunde et al. (2020) demonstrate that D&B can achieve significant efficiency gains: 30% reduction in project delivery timeframes, Enhanced cost certainty, Improved stakeholder coordination, Streamlined project management processes

2.8.2.3 Public-Private Partnership Framework

The evolution of Public-Private Partnerships (PPP) represents a paradigm shift in Nigerian construction procurement. (Ayodele & Dominion, 2015), Ibrahim et al. (2022) highlight that PPP models demonstrate superior performance metrics compared to conventional public sector delivery mechanisms. Recent empirical studies by Olanrewaju and Tan (2018) and Mohammed et al. (2021) underscore several critical success factors: Risk distribution optimization, enhanced resource mobilization, Integration of private sector expertise, Improved project governance structures

Affordable housing, often overlooked as a crucial social infrastructure investment, faces unique challenges in attracting private sector involvement (Alteneiji et al., 2020). Ahmed and Sipan (2020) Studies indicate that end-user payments alone are insufficient to ensure project viability, necessitating government subsidies to make these investments attractive to private investors (Susilawati et al., 2009). Unlike utilities and infrastructure projects that benefit from volume-based revenue increases, housing's non-monopolistic nature limits the effectiveness of public-private partnerships (PPPs) in this sector, making them more context-specific (Phang, 2013). This financial dynamic consistently requires government intervention through subsidies to bridge the gap between user payments and investment viability (Alteneiji et al., 2020; Cambini & Jiang, 2009)

2.9 Chapter Summary

This chapter provides a comprehensive literature review covering the Nigerian construction industry, infrastructure delivery systems, and affordable housing. It

discusses the size, demographics, history, and challenges of the Nigerian construction industry, and explores the implementation of Nigeria's socio-economic development policies. The chapter also examines the concept of housing and housing policy, highlighting the key elements of affordable housing provision and the current state of affordable housing development in Nigeria. It further investigates the challenges faced by infrastructure delivery systems, the reasons for failed affordable housing projects, and the outcomes of failed policy implementation. Despite the challenges, the chapter acknowledges the potential benefits of efficient infrastructure delivery systems in promoting social stability, economic prosperity, and sustainable development. Finally, it looks at the concepts of procurement approaches.

The subsequent chapter (three) will focus on developing a conceptual framework based on the literature review, providing a structured approach to understanding the relationships between the key elements discussed. The conceptual framework will serve as a foundation for the research methodology and data analysis in the subsequent chapters, guiding the study towards addressing the research questions and objectives related to improving infrastructure delivery systems for affordable housing in Nigeria's south-south region.

3 CHAPTER THREE: RESEARCH CONCEPTUAL FRAMEWORK

3.1 Chapter Overview

In this chapter, the conceptual framework of this research would be developed. The conceptual framework is important in guiding the research enquiry during the data collection process and also in developing the final framework for the research. From the previous chapters, some elements that would be important in building up the conceptual framework have already emerged. In addition to the identified elements during the literature review process, an evaluation of the existing models and frameworks related to this study would be carried out. Among the selection criteria of these models and frameworks include their relationship to IDS and/or affordable housing. In this regard, this chapter is structured into 3 main sections including: (i) understanding the theoretical underpinnings of this study in relation to developing the conceptual framework, (ii) evaluating the existing models and frameworks related to IDS and/or affordable housing, and (iii) developing the conceptual framework for this study. Thus, in the subsequent section, the theoretical underpinning of this study is presented.

3.2 Theoretical underpinning of the Study

Having reviewed the previous frameworks and models available and related to this study (infrastructure delivery Systems), several elements are involved to deliver affordable housing. This theoretical study means that several elements can be amalgamated following the approach of systems thinking and/or system theory to form a viable framework for affordable housing delivery. For example, the SAID consisting of eight parts as discussed in section 3.3.1 reflects ICE (2022) position of system approach to infrastructure delivery. Although the models/frameworks focus is on different background such as Engineering, oil and gas (ICE 2022), providing services for owners (Caus, 2011), this can still be applied in the construction industry. Thus, in this study, systems theory approach would be utilised to understand the different elements that are essential to developing a framework for affordable housing Policy Implementation (FAHPI).

3.2.1 Systems Theory

Systems theory is the study of that looks at a phenomenon to be studied as a complex arrangement of elements. This element contains individual systems that can be unique and still function. In this regard, the subsequent sections would highlight and extrapolate the elements relevant to the development of Framework for Affordable Housing Policy Implementation. (FAHPI) Girvan, Newman (2002) noticed that a system usually comprised of several separate elements connected to form a whole, displaying attributes of the whole instead of properties of the parts in his attempt to define a system, the unit behind the concept of system thinking and system practise. implementation from a project perspective, although methodically using pre-existing mechanisms.

Current family systems theories are based on General System Theory (GST), which is a transdisciplinary field of research and a theoretical framework that includes different microlevel approaches referred to as "systems theories." Systems theorists aim to elucidate the behaviour of intricate, structured systems across several domains, ranging from thermostats and missile guidance computers to amoebas and families. Known as "general systems theory" (GST),(Whitchurch & Constantine, 1993). this systematic approach to theory development that focuses on creating concepts, postulates, principles, and theorems that have broad applicability across several fields. Therefore, GST is a theory that applies to systems in a broad sense. The overarching theory that encompasses several volumes of specialised knowledge labelled as systems models or theories is General Systems Theory (GST). Some scholars perceive GST as more than just a theory, but rather as an alternative worldview that necessitates embracing "systems thinking" (Ruben & Kim, 1975). Systems thinking is a perspective that views objects as interconnected with each other in the environment.

3.2.2 Systems Thinking

In his study, the System, which is the basic unit of system thinking and system practice, Lyle and Cushion (2016) argued that a system usually had several distinct components that worked together to make a whole. This showed the properties of the whole rather than the features of its components. In line with his explanation of systems, he defined systems practice as the modern-day implementation of systems thinking into the

planning and execution of our everyday activities. Kintsch (1988) defined a system as a conceptual construct of a whole, allowing for the creation of connected subsets to form the whole. According to Mele et al. (2010), systems thinking shifts focus from individual piece. The following paragraph reviews system approaches to policy implementation.

3.2.3 A Systems Approach to Policy Implementation

Kast and Rosenzweig (1972) shows that while the systems approach in organisational research was not new, this widespread adoption by organisational and management theorists was a relatively recent occurrence. This indicates that utilising systems to study institutions and groups is not a recent advancement, contrary to what was stated. (Kast & Rosenzweig, 1972).

emphasised that any study on organisational performance, such as this one, should consider three specific levels of analysis: the environment, the social organisation, and the human actors (Risman, 2018). They also identified various constraints that impacted the application of the systems approach in analysing complex enterprises.

However, the systems reasoning is robust when a substantial portion of the whole concept can be effectively represented. The effectiveness of the systems approach was judged by how well the model and the circumstance aligned (Jackson, 2007). Kerzner (2017) recognised that situations characterised by rapid change, multiple interests, limited resources, and high complexity, such as policy implementation processes, are best suited for a "systems approach" as the sole strategy with potential for long-term success. Section 3.3 is about Infrastructure Delivery Systems. Adopting models and/or Frameworks considering the overall system more significantly and evaluating how each part functions in connection to the others and the system as a whole. The next section identifies and evaluate existing models /Frameworks which is more suitable for the research subject at hand.

3.3 Evaluation of IDS Existing Models /Frameworks

The significance of developing tools and process for frameworks/models has been identified by the construction industry globally (Pagliosa et al., 2019). In that regard,

quite a few models and frameworks with different approach to solve the puzzle behind IDS. Esozhim (2023) identified five model/frameworks for the implementation of IDS through systematic literature review. This section provides examples of several models and frameworks developed for the purpose of assessing IDS.

3.3.1 Systems Approach to Infrastructure Delivery (SAID)

The Systems Approach to Infrastructure Delivery (SAID) is a whole system framework for planning, designing, and delivering complex infrastructure initiatives, such as achieving net-zero carbon emissions by the year 2050. SAID emphasises adopting a holistic view of the entire infrastructure system, considering its components and their interrelationships. also, SAID is a model for applying **systems thinking** to project delivery. According to ICE (2022) evaluation state that a systems approach might improve outcomes for owners and users to aid the industry in moving forward with its major strategic challenges.

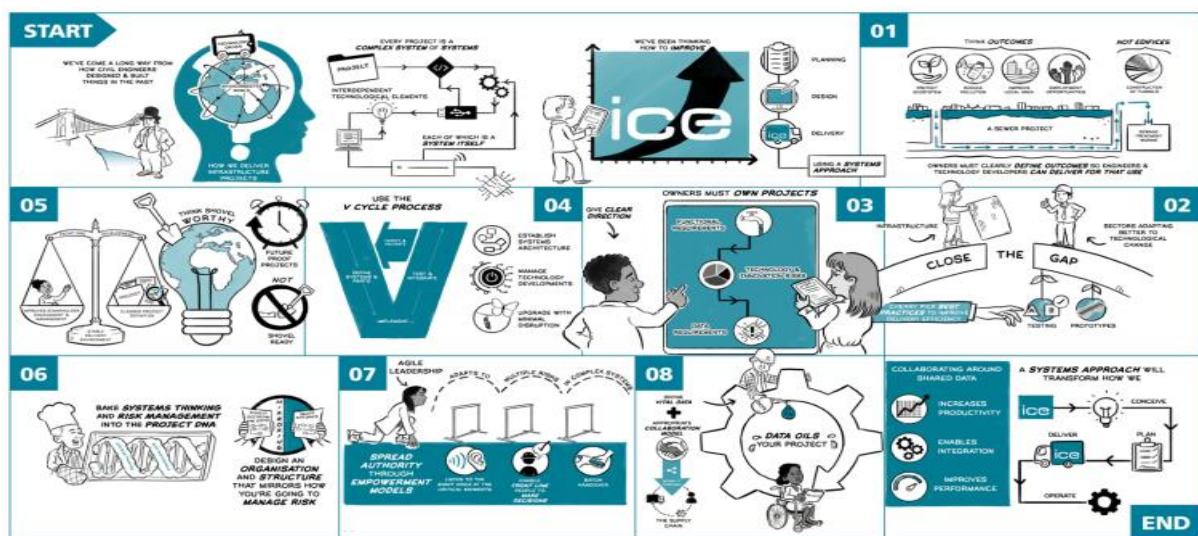


Figure 3.1: Systems approach Infrastructure Delivery

Source: (ICE 2022)

In order to achieve the abovementioned stated objectives, SAID model consists of eight (8) Principal components such as Think Outcome-Users expectation, Gap closing between infrastructure and Sector, Design and Delivery Schedule, Future Proof Project, think shovel worthy, not shovel ready, bake in system thinking, Agile Leadership, and Data oil Projects. In addition to the SAID model furthers requirements

to build Stakeholders and Management engagement under SAID also identified Think shovel worthy, not shovel ready.

Moreover, systems thinking far more frequently in the delivery of complex projects Not only is the delivery of a physical structure the goal of infrastructure projects; rather, the focus should be on providing a service that satisfies the requirements of the infrastructure's owners and users (Cuomo et al., 2013). However, According to Glaeser (2011) review, major infrastructure projects that are viewed primarily as tests of civil engineering brilliance run a higher risk of losing sight of the end goal and neglecting to devote appropriate resources to the issues of systems integration.

Although, the SAID mainly focus on Infrastructure that complement stakeholders and Management engagement during long-term commitment, there is a lack of tools within AHPI that were not identified from the above discussion the following component is related to.

3.3.2 The Interdependency Planning and Management Framework (IP&MF)

Rosenberg et al. (2014) defined Interdependency Planning and Management Framework (IP&MF) as systematic approach to infrastructure delivery by identifying existing and potential dependencies and interdependences in infrastructure delivery including the sub-systems and the elements as well as the opportunities to enhancing value-for-money, efficiency, effectiveness, sustainability and resilience (Rosenberg et al., 2014). The IP&MF system incorporates principles and tools grounded in a holistic open systems-based approach aimed at problem structuring, measurement and appraisal and creating stakeholder understanding. The IP&MF approach portrays the infrastructure assets as being continuously appraised throughout the lifecycle.



Figure 3.2: Interdependency Planning and Management Framework

(Source: Rosenberg et al. 2014, p. 31)

The Infrastructure Project and Maturity Framework (IP&MF) comprises three core activities to achieve the above aim. Firstly, the initiation of interdependency planning, and management practices that involves early engagement of key stakeholders to foster effective collaboration. Secondly, creating stakeholders understanding by emphasizing on interdependency planning, governance, and valuation practices continuously. Finally, the measurement and appraisal activity involve establishing criteria, gathering evidence, and reviewing business cases in alignment with interdependency maturity. These activities occur iteratively or concurrently throughout the infrastructure project lifecycle, guided by evolving knowledge. Practical applications of IP&MF include projects like High Speed 2 – Phase 2, the lower Thames Crossing, and the Northern Line Extension (Rosenberg et al., 2014).

In contrast, insufficient empirical evaluation of the framework seems to be its critical weakness despite it reported application on the infrastructure projects. Also, IP&MF were Specifically developed for the United Kingdom Infrastructure in addition not all elements have been tested in all Casestudy however, the research finds framework

for Interdependency Planning and Management relevant and related through Stakeholders collaboration and governance.

3.3.3 Infrastructure Projects' Lifecycle

Infrastructure Projects' Lifecycle (IPL) is comparable to the process of constructing a home: it requires planning, construction, maintenance, and eventual renovation or reconstruction. Every phase is essential for the success of the project satisfaction of various stakeholders' interest throughout the project cycle. Zhang, Gao, Feng, and Sun (2015).

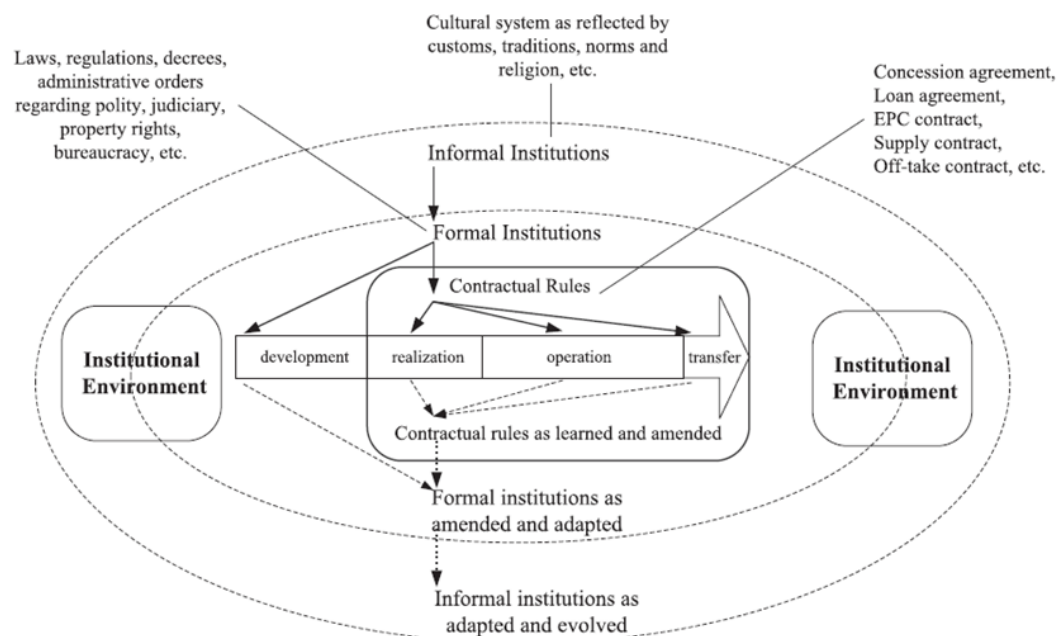


Figure 3.3: 3 – Phase Project Life Cycle for Infrastructure Projects

(Source: Zhang et al. 2015, p. 500)

In order to achieve success in the above phase. The IPL framework comprises of four major factors that are critical for the economic transactions such as : (1)the informal institutions-consisting of customs, traditions, norms and religion;(2)the formal institutions (legal and administrative systems) – which embodies the rules such as rights, **policies**, judiciary and bureaucratic processes; **governance** – which deals with the governance structures and transactions that influence the contract designs; and (3) the contractual rules that drives resource allocation and employment (Zhang et al. 2015). In turn the contractual rules are depicted to be constrained by the last factor (4)

institutional environment which are both formal and informal. The informal institutions include how the public perceive the PPP and the impeding culture while the formal institutions represent the constitution, laws, **policies, regulations**, and administrative structures of the government (Zhang et al. 2015). In other words, IPL examines the whole lifecycle management performance of PPP infrastructure projects and helps the central government adjust tactics to improve local government management efficiency by developing a governmentality-focused evaluation framework. Hence, IPL, highlights the implementation of policies, regulations and governance that are related to the need through **stakeholder engagement and policy implementation**.

3.3.4 Viable Infrastructure Delivery Systems Model (VIDM)

A viable Infrastructural Delivery Model (VIDM) that is used for the implementation of organisational structure for effective project policy delivery using **systemic thinking and theory** for the actualisation of successful organisational **policy implementation** in infrastructure development. VIDM identifies the different sub-systems across the project lifecycle such as the policy inputs, the process, and the expected outcomes (Awuzie & McDermott, 2015; Awuzie & McDermott, 2019b). Within these subsystems, the VIDM conceptualises and evaluates the different interorganisational relationships within the IDS from a systems viability perspective. The VIDM also shows the interaction between the IDS and the external environment highlighting the role of policy implementation in the delivery of the infrastructure. In so doing VIDM facilitates quick recognition of the major project stakeholders in the information delivery system and unravelling the complex relationships between stakeholders and how they influence infrastructure development (Awuzie & McDermott, 2015).

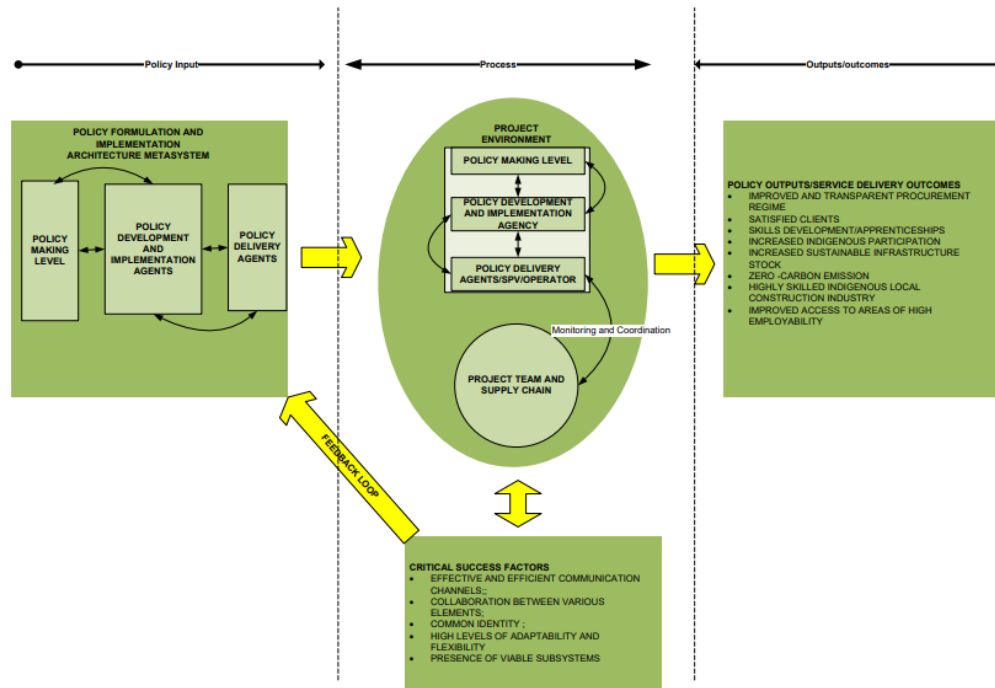


Figure 3.4: Viable Infrastructure Delivery Model

Source: Awuzie (2014b)

The “policy” subsystem is saddled with the responsibility of policy development and/or strategy for the infrastructure development. This subsystem also considers how the mode of policy delivery includes agents in driving sustainable infrastructure development. The second subsystem is the “process” which considers the interrelationship between the **policy making** bodies (government) and the project team including contractors and suppliers representing the private sector partners. Predominant in this subsystem is the client organisation (government ministries and agencies) responsible for regulating and implementing the policies as well as playing coordinating and monitoring roles within the project environment and the private sector partners that are responsible for the day-to-day activities leading to the construction and delivery of the infrastructure asset. An outcome of this subsystem process is the identification of the critical success/failure factors which loops back to the policy subsystem. Lastly, the output subsystem represents the outcome which ultimately is the delivery and operation of the infrastructure.

As it regards the practical application of the model, the authors have validated it against **three case studies** – two of which was from the Nigeria oil and gas industry and the other a major rail project in Northwest England (Awuzie & McDermott, 2019b).

The case study (termed IDS1) was a project delivery system responsible for the development of a Floating Storage Production and Offloading facility located within one of Nigeria's largest single deep-water oil fields in the Niger Delta region, which was awarded in 2008 and delivered in 2011. The second case study (IDS2) involved a major pipeline project that was conceived to deliver natural gas from the Niger Delta region to different parts of the country as part of the gas infrastructure master-plan program. The pipeline project constituted a thirty-year concession granted to an indigenous organisation, a subsidiary of the Nigerian National Oil Corporation. The third case study was the Light Rail project situated in one of the major cities in the Northwest region of England whose length was estimated to span 59 miles and 93 stops traversing at least seven of the ten boroughs of the city. The light rail was a long running project commenced for construction in 1988 and first commissioned in 1992. Along the years, subsequent phases of the project were approved and for the study focus was on the third phase of the project which construction activities commenced in 2008 and commissioned in 2012.

The result of the findings from the three studies were reported across four broad categories: communication-related factors, functional factors, structural factors, and critical success factors. The finding from all three case studies (i.e., IDS1, IDS2, & IDS3) indicated failure to meet organisational viability criteria – as highlighted by several disconnect between policy and the implementation process (Awuzie & McDermott, 2019b). This disconnection was attributed to several factors such as poor communication and cooperation between participating organisations which could be related to stakeholders' collaboration and policy and regulation (P&R).

3.3.5 National Infrastructure System Model (NISMOD)

The National Infrastructure Systems Model (NISMOD) is the first of its kind infrastructure system-of-systems modelling platform and database created between 2010-2015 (Hall, Tran, Hickford & Nicholls, 2016). The NISMOD suite of models operates in three critical areas. The first being a model of long-term performance for the infrastructure system-of-systems (NISMOD-LP) – which is aimed at assisting the UK in assessing its infrastructure needs and plans in meeting vital sustainability and emission targets as well as assessing long-term pressures and uncertainties that might

affect infrastructure systems. The second domain is the infrastructure for sustainable development (NIMOD-SD) – include processes that are designed to inform infrastructure planning and **decision-making** within the contexts of Low-to-Middle income countries. Lastly the risk and resilience assessment domain (NIMOD-RRA) use recognised models in examining the robustness and weakness of existing and proposed formations of infrastructure networks that allows for assessment of different national strategies for developing infrastructure based on their risk-footprint under climate change.

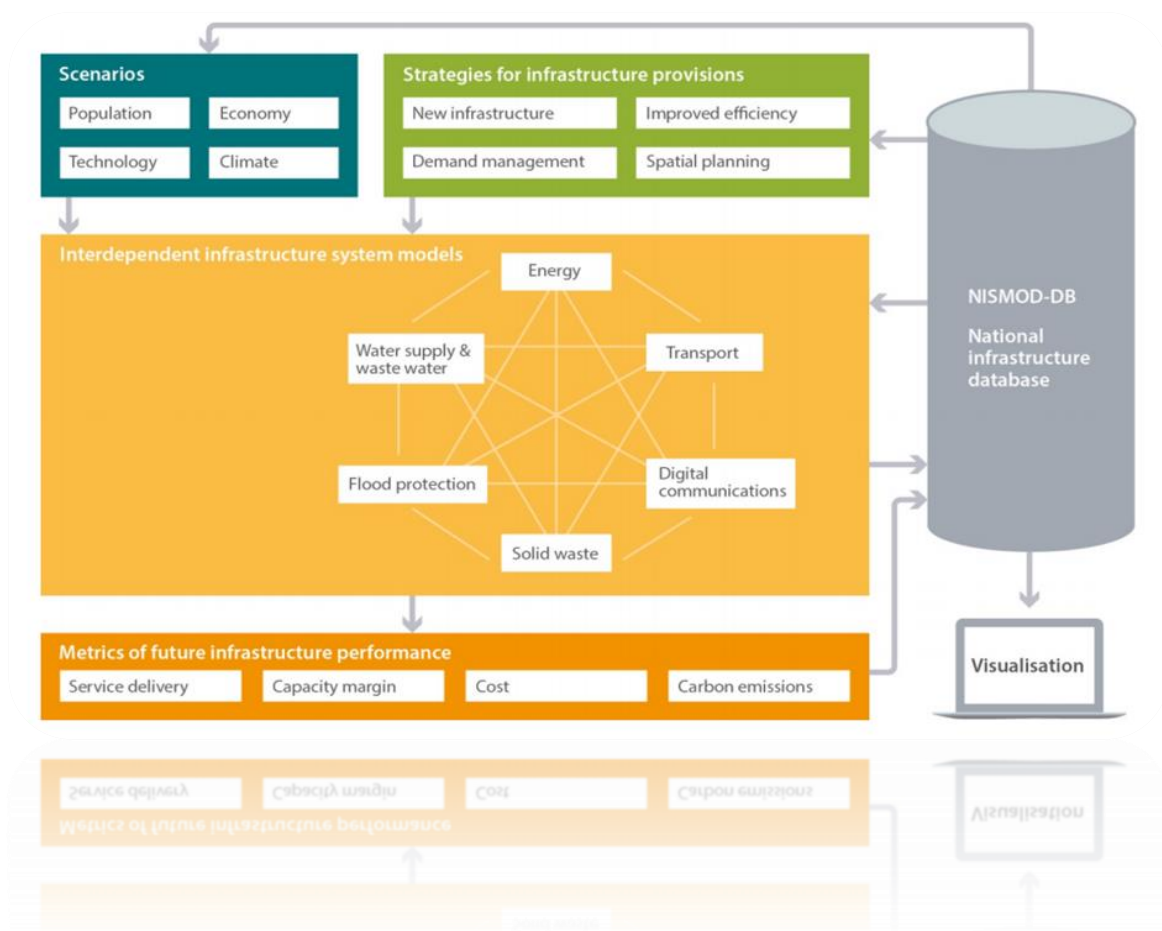


Figure 3.5: The NISMOD Structure

Source: (Oughton et al., 2018)

The schematic of the NISMOD is demonstrated in Figure 3.1 number Five (5) based on colour bands. At the core of the of the NISMOD is the database domain (coloured in grey) containing various information on national infrastructure assets, inputs and

outputs for simulation models, and statistical tools such as maps and graphs for visualisation of data from the database. In the green coloured domain is the coherent strategies for infrastructure provisions: which include list of infrastructure investments to be made (such as the UK's National Infrastructure Delivery Plan 2016-2021 and beyond and the Nigerian National Integrated Infrastructure Master Plan), policies and legislative interventions and optimisation of current challenges in spatial planning and managing demands. The yellow colour band represents the different infrastructure physical assets to be developed while the orange colour band represent the metrics of future infrastructure performance.

The NISMOD model has been employed in the assessment of infrastructure assets both within the UK and outside. For example, Byers, Coxon, Freer and Hall (2020) examined the electricity price impacts of cooling water shortages on Britain's power supplies using a probabilistic spatial risk model and reported as part of their findings the justification to mitigate the first-order economic risks of cooling water shortage during droughts. Similarly, Hall, Mortazavi-Naeini, Borgomeo, Baker, Gavin, Gough, et al. (2020) applied the NIMOD to propose a template for planning water resources based on system simulation modeling in estimating the frequency, duration, and severity of current water shortages in developing future plans. Other applications of the model are reported in the following studies: the evaluating the magnitude of spatial extent of disruptions across interdependent national infrastructure networks (Zorn, Pant, Thacker, & Shamseldin, 2020), Multi-scale assessment of the economic impacts of flooding: evidence from Firm to Macro-Level Analysis in the Chinese Manufacturing Sector (Hu, Pant, Hall, Surminski & Huang, 2019), a global multi-hazard risk analysis of road and railway infrastructure assets (Koks, Rozenberg, Zorn, Tariverdi, Voudouskas, Fraser, et al. 2019) and systemic vulnerability assessment of multi-modal transport networks (Pant, Koks, Russell & Hall, 2018). policies and legislative interventions and optimisation of current challenges in spatial planning and managing demands. The yellow colour band represents the different infrastructure physical assets to be developed while the orange colour band represent the metrics of future infrastructure performance.

3.4 Conceptual Framework

The conceptual framework plays an important part when conducting study by providing insight into the current conceptual environment related to the topic being studied. By

elucidating the fundamental beliefs and ideologies, it establishes the foundation for understanding and situating the study's findings. (Ravitch & Riggan, 2016) Miles and Huberman (1994) defines the conceptual framework guides research. The book clearly explains the primary elements being researched, their guiding principles, influencing factors, and proposed relationships. When viewed metaphorically, the framework accurately and thoroughly conveys the core ideas of the research. Accordingly, Bakharia et al. (2016) stress the need of a framework in providing a comprehensive summary of various acts and their connections. Essentially, this framework serves as the foundation of the research project, clearly defining the important ideas, their complex connections, and the specific conditions under which these ideas and their links are put into practice.(Yin, 2014) According to Maxwell (2013), the conceptual framework helps researchers: Connecting the research problem to its investigation: The framework guides inquiry by identifying essential concepts, variables, and their interrelationships, aligning the problem and research activities. This research will proceed from the initial conceptual framework to a refined, validated, and final framework. This iterative method will carefully review the initial framework to ensure it meets research goals and its theoretical underpinnings. A comprehensive validation strategy will sharpen the framework, assuring durability and integrity. This improved framework will be essential for comparing the final research framework. The investigation will reveal new knowledge and its contribution to understanding by carefully comparing the existing frameworks.

3.4.1 Strategy for Research Execution

The framework guides data gathering, analysis, and interpretation decisions. This promotes well-organized research. Maxwell (2013) advises using four module-related sources to build and implement this crucial framework: According to Maxwell (2013), research involves four components: the researcher's knowledge from experience, existing research and theory, pilot exploratory study, and investigation. According to Saunders et al. (2018) Conceptual frameworks assist uncover data gathering challenges. Thus, a conceptual framework can be changed and finished after the data has been studied and validated. Therefore, this study aims to develop a Framework for Affordable Housing Policy Implementation.

3.4.2 First Draft Conceptual Framework

The previous paragraph discussed the five (5) existing models/Frames that was reviewed and evaluated to identify the focus of the model and how they are related to the affordable housing, in order to develop a conceptual framework that will investigate the gap identified such as inadequate policy implementation, therefore the definition below describes the main categories and elements identified through literature and the existing models/frameworks , that will be implemented for the conceptual frame to enable the researcher have an in-depth understanding of the problem similarly, the next section highlights the justification for adopting Conceptual Framework of the Study. Through the conceptual framework, the affordable housing policy implementation gap as described by IDS is compared to an organisation.

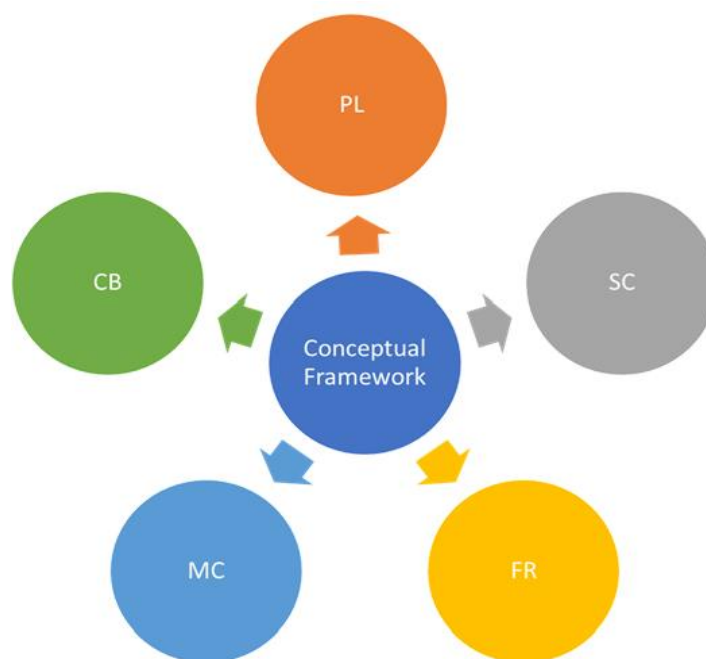


Figure 3.6: Conceptual Framework

Source: Author, 2024

3.4.2.1 Policy & Legislation (P&L)

Policy encompasses a range of guidelines and principles formulated to address societal issues and achieve desired goals. It serves as a roadmap for decision-making

and provides a framework for action. Legislation, on the other hand, refers to the laws enacted by legislative bodies to regulate behaviour, enforce policies, and ensure compliance. Together, policy and legislation form the backbone of governance and shape the legal and regulatory landscape of countries, organizations, and communities.

3.4.2.1.1 Policy Regulators for Housing

Municipal-led projects have existed for more than a century. Regarding the acquisition and utilisation of wealth as a long-lasting asset. With the swift expansion of capitalism in London, private landlords promptly seized control and escalated rents to their highest level, worsening issues such as the proliferation of slums.

In 1948, Prime Minister Harold Mcmillan allocated significant resources in terms of personnel and cash to orchestrate "building projects" that resulted in the construction of over 1.5 million newly built council residences. However, this situation came to an end when the policy of allowing tenants to purchase council houses, known as the "right to buy," was implemented in 1980. Additionally, once Margaret Thatcher assumed power in 1979, the construction of new council houses significantly declined. Subsequent governments have either imitated this action or their own efforts have lapsed and/or been unsuccessful in obtaining sufficient funding and workforce to a certain degree.

The National Housing programme, launched in 1991, was Nigeria's inaugural national programme aimed at providing affordable housing. This strategy functions as a comprehensive plan for the creation and execution of housing policies, with the additional aim of promoting the construction of residential communities. The National Housing Fund (NHF), created by a parliamentary statute in 1992, had its most recent update in November 2006. The NHF's objective is to offer monetary assistance and easily obtainable loans with equitable interest rates to Nigerian workers employed by both the government and private sector, including federal public officials.

In order for the market for affordable housing to function optimally, it is essential to develop appropriate criteria to ensure that policy regulators effectively and efficiently fulfil their tasks and responsibilities. Regulators are often blamed for housing crises and receive significant scrutiny regarding their role in the housing market. However, it

is important to recognise that regulators do not operate independently, but rather their actions are subject to limitations and oversight.

3.4.2.1.2 Policy Decision Makers for Housing

Policy decision-makers at the federal, state, and local levels play a vital role in shaping the housing landscape in Nigeria's south-south region. As highlighted in section 2.3 of the literature review, these decision-makers are responsible for establishing frameworks and policies that directly impact the accessibility and affordability of housing. At the federal level, policymakers can create national housing policies and programs that set the overall direction for housing development in the country. State-level decision-makers can then adapt these policies to the specific needs and contexts of their respective states, while local government officials are tasked with implementing these policies on the ground.

One critical area where policy decision-makers can make a significant impact is in the realm of housing finance. By collaborating with banks and financial institutions, policymakers can develop innovative financial instruments and mortgage products that make homeownership more accessible to residents. This can include initiatives such as microloans, low-interest mortgages, and down payment assistance programs. Additionally, policymakers can promote sustainable housing development by encouraging the use of eco-friendly construction practices and materials. This not only helps to reduce the environmental impact of housing development but also contributes to the creation of more resilient and energy-efficient homes. Furthermore, through effective zoning regulations, infrastructure investment, and slum upgrading initiatives, policy decision-makers can guide the sustainable growth and development of cities and towns in the south-south region, ensuring that the housing needs of the growing population are met in a balanced and equitable manner.

3.4.2.2 Stakeholders & Collaboration (S&C)

Stakeholders include organisations, projects, or decisions that impact or are of interest to particular individuals or groups. There are many types of them, from workers and managers inside the company to customers, investors, and people in the community. Managing stakeholders is important in many areas because their wants and needs are often very different. Collaboration, on the other hand, means working together to get

something done. Talking about partners means using the different ideas and skills of these people and groups to make things better for everyone. Hence the need for Public private Partnership in order to collaborate during project delivery.

3.4.2.2.1 Public -Private Partnership

Public private partnerships (PPP) are not a completely novel notion in the realm of infrastructure development. The first Public-Private Partnership (PPP) in modern history was established in 1854 as a concession to build and manage (Levy, 1996) However, the idea of include project stakeholders in the decision-making process has significantly evolved since then. Looking back, there was no discernible public pressure, either in favour or against, about any decision pertaining to the Canal throughout the 19th century. Almost two decades later, public concerns continue to exert a significantly greater influence on PPPs. Indeed, there are seven primary factors identified by the World Bank as impediments to private investment in infrastructure. (El-Gohary et al., 2006)The initial factor is as follows: *“A wider gap between the expectations of the governments and the private sector on what is reasonable and acceptable”*(Business, 1996).

The factors that motivate governments to adopt the Public-Private Partnership (PPP) method vary based on the specific country and institutions involved. However, several PPP scholars believe that the majority of poor nations are embracing the PPP model as a prerequisite for receiving loans from international institutions.(Osei-Kyei & Chan, 2018) Furthermore, it has been contended that the rationale for embracing Public-Private Partnerships (PPP) is contingent upon the goals of the entities engaged in the PPP agreement. Nevertheless, Boadi (2020) identified three primary motivations for a government to embrace the Public-Private Partnership (PPP) strategy are as follows: 1) Public-Private Partnerships (PPPs) serve as a financing channel for governments, with the added benefit of being "off-balance-sheet" in nature. 2) They are used to enhance project efficiency and effectiveness. 3) Additionally, PPPs promote transparency and aid in curbing corruption. Other factors such as Boardman and Vining (2012) argued that the government uses the PPP method because it is more convenient from a social, legal, economic, political, and technical point of view.

3.4.2.2.2 Evolution of PPP the Context of Nigeria

The involvement of the private sector in public housing in Nigeria began in Lagos with the establishment of the New Towns Development Authority (NTDA) in 1981 (Ibem, 2010). The NTDA was among the agencies responsible for supporting private sector-driven initiatives in housing delivery in Lagos state. This approach was further reinforced by the new democratic government in Nigeria through the approval of the new National Housing Urban Development Policy (NHUDP) launched in 2002 (Aribigbola, 2008). The objective of the NHUDP was to ensure that all Nigerians own or have access to decent, safe, and sanitary housing accommodation at an affordable cost through private sector-led initiatives (Aribigbola, 2008; Ibem, 2010). Although public-private partnerships (PPPs) became popular in Nigeria in 2004, leading to the establishment of regulatory agencies in 2005 (PPAIF, 2007), this marked the beginning of private sector involvement in addressing the housing shortfall in Nigeria.

Public-private partnerships in housing are promoted on the assumption that they encourage multi-sectorial participation, increase housing stock, affordability, accessibility, and timely delivery of housing to citizens (Ikekpeazu, 2004; UN-HABITAT, 2006b; Shelter Afrique, 2008). Convinced by these apparent benefits, the government of Nigeria recently adopted PPP as a key policy to increase housing stock and affordability for all Nigerians. In December 2011, the Federal Government of Nigeria (FGN), through its Federal Ministry of Land, Housing and Urban Development (FMLHUD), made a policy statement emphasizing the need for collaboration with key actors and operators in the housing sector through the establishment of viable partnerships with private sector development and investors (FMLHUD PPPs Guideline, 2011, p.1).

The policy guideline outlined several objectives for housing PPPs, including establishing sustainable partnerships between the public and private sectors, fostering partnerships that leverage inputs from all stakeholders, facilitating the provision of decent and affordable housing units, demonstrating viable approaches to housing delivery, promoting the mobilization of funding for housing and urban development, contributing to the operations of the Nigerian mortgage sector, and promoting the development and operation of housing cooperatives (FMLHUD, 2011). The policy document recognized various stakeholders in Nigeria's housing PPPs, including government entities at all levels, real estate developers and investors, manufacturers

of building materials, financial institutions, educational and research institutions, donor agencies, community-based organizations (CBOs), NGOs, professional bodies, housing cooperatives, and construction companies (FMLHUD, 2011). However, previous studies have concluded that in practice, CBOs and NGOs were not part of the housing PPP arrangement in Nigeria (Daramola et al., 2005; Bala and Bustani, 2009; Ibem, 2011). Overall, PPP was adopted in housing provision in Nigeria to provide a viable and sustainable platform for delivering decent and affordable housing units in all cities and towns, with the aim of reducing the acute housing shortage in the country.

3.4.2.2.3 Financial Institutions

Since 1973, the Federal Housing Authority (FHA) has produced just 37,000 dwellings nationwide, averaging less than 1,000 per year due to limited funding (Njoku J., 2011). Additionally, in 2013, The Nigeria Mortgage Bank introduced the Informal Sector Cooperative Society Loan Scheme, which allows people of the informal economy to take advantage of the National Housing Scheme. (Kolawole, 2015). Given the significant funding required to address the housing shortfall in Nigeria, it is important to provide adequate funding to address the issue.

3.4.2.3 Monitoring & Control (M&C)

Monitoring and Control makes sure that goals are met and projects are carried out well. Monitoring means checking on projects on a daily basis to see how they're going. Controlling means making changes to keep projects on track. Stakeholders can find problems and issues early on and solve them quickly if there is a strong tracking and control system in place. This lowers the risks, speeds up the project, and makes sure that cheap housing projects are completed successfully.

3.4.2.3.1 Effective Project Supervision

The effectiveness of affordable housing policy relies on efficient project supervision, especially for the monitoring and control team. The function of this team is essential in ensuring that projects comply with budget, schedule, and quality standards, hence enhancing the overall efficacy of the policy. There are two crucial elements of successful project supervision for this team:

1. Collaborative Leadership: Encourage project managers, contractors, and stakeholders to work with the monitoring and control team. This permits open communication, early issue identification, and quick problem-solving. Meeting regularly, reporting, and having clear escalation processes enhance proactive communication. This keeps everyone informed, aligned, and problem-solving. Let the team decide using data. Provide relevant information, data interpretation training, and career progression. Team ownership and accountability increase.

2. Data-Driven Decision Making: Set up effective monitoring mechanisms to track affordable housing policy KPIs. This might include project progress, budget compliance, quality, and resident satisfaction. Use data analytics to spot trends, patterns, and threats early. Before difficulties worsen, early intervention and course correction are possible. To inform politicians, community members, and project funders, provide clear reporting formats and dashboards. This guarantees openness, accountability, and informed decision-making at all levels. Project supervision may equip the monitoring and control team to successfully execute affordable housing policies by prioritising collaborative leadership and data-driven decision-making. This makes housing accessible and sustainable for the needy.

Through the emphasis on collaborative leadership and the use of data-driven decision-making, project supervision can enable the monitoring and control team to have a crucial impact on guaranteeing the effective execution of affordable housing policies. This eventually aids in the development of accessible and sustainable housing alternatives for individuals who require them.

3.4.2.3.2 Project Documentation

Chan (2018) and Kjorstad (2016) noted that project promoters were avoiding documenting project failures due to concerns about losing financing or stakeholder support. Failures were increasingly associated with risk rather than being viewed as chances for learning.

3.4.2.4 Challenges & Barriers (C&B)

To comprehend the complex dynamics of housing development in the South-South area of Nigeria, it is essential to closely analyse the obstacles and hindrances that obstruct advancement. This includes methodological challenges, unexpected

discoveries, and limits in current knowledge identified in previous studies, as well as tangible barriers that physically impede the progress and mobility of housing projects. In section **2.4/2.3** the challenges of affordable housing have been discussed extensively. However, a few others were highlighted from the review of existing frameworks. This research examines obstacles and constraints, such as lack of political goodwill and inconsistency in government policy, by utilising information from relevant literature and existing models/frameworks. By examining these linked elements, our goal is to illuminate the intricate housing development environment in the region and pave the way for alternative solutions that can address these restrictions and advance progress towards sustainable and equitable housing solutions.

3.4.2.4.1 Lack of Political Goodwill

The lack of political will that is necessary to commence and enforce the execution of such legislation is glaringly obvious in comparison to other laws that are already in place in Nigeria that are comparable. To facilitate a meaningful and radical change that could assist Nigeria to climb up the developmental ladder, Adewole (2014) advocated stronger and efficient political will among leaders as the current crop of Nigerian's leaders pay lip service to development transformation apart from their lack of political will, there existed an insufficient knowledge and ethics of leadership practices for pushing forth and achieve sustaining structural governance reform particularly at the state and local government levels.

Despite the fact that there is some evidence of the legislation's influence, Familoye et al. (2015) made the observation that the complete execution of the law is still an unattainable goal. The research found that a lack of political goodwill is a barrier to implementing affordable housing policy. Policymakers and regulators prioritise pleasing themselves and their superiors over reforming existing policies to support effective project delivery. This will result in a financial and resource overrun.

3.4.2.5 Finance & Resource (F&R)

Finance for affordable housing refers to the processes and resources required to effectively allocate and utilise funds in order to achieve the goals of providing housing that is within the financial means of individuals and families. A comprehensive comprehension of the sources of funds, allocation of resources, and their optimal

utilisation for the advantage of the firm is vital. In essence, finance facilitates the functioning of various activities by enabling the transfer of currency. Housing projects mostly entail financial management and budgeting, whereas resources primarily pertain to land, materials, and labour.

Resources are the materials that will be utilised for the construction of the housing. Additionally, it emphasises the labour and tools required for constructing the project, as well as the period that the workforce will be essential. Upon obtaining all the necessary materials, the construction can commence.

3.4.2.5.1 Inadequate Funding

Global affordable housing may be characterised as reflecting the Chinese concept of seizing opportunities during crises. Chan (2018) and other investment experts suggest that affordable housing has the potential to generate significant possibilities for the housing finance, construction, and infrastructure sectors worldwide.

Addressing the worldwide need for affordable housing in metropolitan areas might create a \$2.3 trillion investment opportunity, as reported by Charles et al. (2019). This may increase global GDP by 10%, equivalent to \$200-\$250 million, from 2020 to 2030, excluding the impact on jobs in the building and housing sector and poverty alleviation.

According to the World Bank Group (2018), affordable housing is now recognised as a worldwide issue under the Sustainable Development Goals (referred to as SDG 11). The World Bank's SDG atlas identifies cheap, adequate, safe, accessible, and sustainable housing as a target problem for most countries to address by 2030. as stated previously on project documentation Chan (2018) and Kjorstad (2016) noted that project promoters were avoiding documenting project failures due to concerns about losing financing or stakeholder support. Failures were increasingly associated with risk rather than being viewed as chances for learning.

3.4.2.5.2 High Cost of Building Material

The costs of constructing a dwelling in Nigeria or any other African nation are considerably elevated, even during periods of significant housing need, which remains disheartening. Nigeria, for instance, faces a housing shortfall of around 500,000 according to Annette (2016). This statement should be considered within the framework of Nigeria's annual budget allocation of N50 billion for housing, as well as

the ambitious National Economic Recovery and Growth Plan (NERGP) for the period of 2017-2020, which includes provisions for the construction of 2 million dwellings nationwide. In addition to the substantial shortage of housing, several interconnected social problems such as the rapid growth of slums and the deterioration of urban areas persist, worsened by rising construction expenses.

One evident factor contributing to the elevated cost of construction materials in Nigeria and Africa as a whole is the significant proportion of these materials that are imported. Additionally, there is a lack of control regarding the pricing and quality of building supplies, enabling stakeholders to take advantage of pricing. Fluctuating foreign exchange rates in Nigeria, partially caused by changes in global oil prices, also contribute to the problem of expensive building materials. The economy of Nigeria and many African countries heavily rely on crude oil, and disruptions in the worldwide oil market result in a rise in the expense of importing commodities due to currency depreciation. Consequently, the impoverished population in Nigeria and other African nations not only faces the challenge of expensive building materials but also struggles with the significant expense of construction, severely impacting the government's capacity to offer affordable housing for the masses and social housing for its inhabitants. The deregulation of the building and construction industry exacerbates the problem.

According to Pamela (2010), liberalizing laws raise building project and product costs. Due to globalization and technological improvement, investors and industry focus on creating and deploying cutting-edge construction systems and technologies. In most African nations, innovation has led to continued commercialization and greater procurement costs in the building sector. The global adoption of alternative, eco-friendly, energy-efficient, and sustainable building material systems will worsen the situation unless local and regional policy and regulatory measures are taken to monitor and control their cost and quality.

3.5 Chapter Summary

A description of the conceptual framework of this study has been provided in this chapter. This provided an illustration of a wide variety of theoretical models and frameworks that have been researched and reviewed in order to investigate the factors that influence the delivery system of affordable housing schemes. Consequently, the framework of this study was initially developed as shown in Fig. 3.6, and it will be further refined and developed after the data collection stage with additional details that could be applied to the study. This is because the framework highlights and identifies the primary components that can be used for successful policy implementation. This research was conducted using a particular research method, which will be detailed in the following chapter.

4 CHAPTER FOUR: THE RESEARCH METHODOLOGY

4.1 Chapter Overview

In the previous chapter, the conceptual model was developed. This chapter will outline the methodological process to achieve the research aims and objectives. The most appropriate research methods for this study will be identified and justified, including exploring philosophical positions. The chapter will not be limited to these three key issues but will also address other important considerations such as research strategy, design, and ethical considerations. The following section will present the research methodological design models considering the above discussion and justification of research choices.

4.2 Research Categories

4.2.1 Exploratory

Exploratory research is a highly valuable approach that enables individuals to uncover and gain profound knowledge about a subject of interest. This type of research is typically conducted by posing open-ended questions, involving interviewing subject matter experts, conducting a comprehensive literature review, and facilitating focus group discussions. Participants are carefully selected based on the quality and quantity of information they are expected to provide. Through exploratory research, one can understand an existing situation better, identify key issues, and develop avenues for more precise future inquiry. It can also facilitate the recognition of problems and create opportunities for subsequent investigations. As Collis and Hussey (2003) note, exploratory research offers a thorough comprehension of a current scenario, making it an essential tool for anyone seeking to uncover new insights and understanding.

4.2.2 Descriptive

According to Chapman and McNeil (2005), descriptive research provides a precise portrayal of a situation or set of circumstances that answers questions about what, who, and how many. This type of study comprehensively depicts individuals, events, or circumstances to provide insights into a wide range of social factors and highlight potential issues that require further examination (Saunders et al., 2019). In descriptive research, data collection and analysis may involve statistical or quantitative methods,

focusing on describing a phenomenon's characteristics rather than its causes (De Vaus, 2001). Nonetheless, descriptive research can be useful for exploratory and explanatory research and can provide a foundation for further investigation into a subject.

4.2.3 Explanatory

Finally, Collis and Hussey (2003) suggest that explanatory research can use qualitative and quantitative methods to explain why and how a phenomenon happens. Saunders et al. (2019) define explanatory research as discovering causal links between variables to explain a phenomenon. Explaining "why" questions requires description, making distinguishing between descriptive and explanatory investigations difficult. According to DeVaus (2001), an explanation is used to discover a phenomenon's causes to provide remedies, whereas a description describes it. Explanatory study reveals causalities and linkages by explaining how elements interact in a situation or problem. the next section will explain and justify the categories adopted by the researcher.

4.2.4 Justification of Research Categories

After examining the different categories of the research, the study tends to explore and describe the research. The implementation of IDS for affordable housing may be a relatively new or understudied area, particularly in the specific context of the studied region. Exploratory research allows for gaining in-depth insights and uncovering previously unexplored aspects of this phenomenon. Also, by conducting exploratory research, you can identify the key factors, stakeholders, processes, and challenges associated with implementing IDS for affordable housing projects. This understanding can inform the development of more focused research questions. Moreover, Descriptive research is valuable for obtaining a comprehensive and accurate description of the current state of IDS implementation for affordable housing projects in the region. This includes documenting the processes, stakeholder roles, and contextual factors involved. Descriptive research can establish a baseline understanding of the current IDS implementation, which can serve as a reference point for future evaluations or comparisons after introducing interventions or policy changes.

In conclusion, combining exploratory and descriptive research approaches can help you gain a comprehensive understanding of the phenomenon, identify critical factors and stakeholders, generate insights and hypotheses, and establish a detailed account of the current state of IDS implementation for affordable housing. This combination provides a robust foundation for developing effective strategies, policies, and interventions to enhance the infrastructure delivery systems and ultimately support the successful implementation of affordable housing initiatives in the region.

4.3 Research Method Design

On the other hand, the research method is an organised process involving specific methods, techniques, and strategies for researching a problem, collecting data, and analysing the results. It is an important part of the research process as it provides a systematic approach to the research problem and helps ensure the results' accuracy and reliability. The implementation of these philosophies, strategies, methods, and approaches can help researchers gain a greater insight into a particular phenomenon that provides a better understanding of the underlying causes and effects. They can also be used to develop new understandings of a topic or challenge existing theories and assumptions. (Miles and Huberman, 1994, Jankowicz, 2005, Walker, 1997, Awuzie 2014).

In addition, this is important because different approaches may provide different insights, and a holistic approach may offer a more complete understanding of the phenomenon. Additionally, staying informed of new research and developments can help researchers to stay current and find new ways of interpreting the data. Finally, researchers should also consider the potential impact of their findings, both in terms of how it may affect their own work and how it may be interpreted by others. (Wilson, 1990). Depending on the research question, different methodological approaches may be adopted. The methodology chosen should be the one which is most suitable for answering the research question. It is also important to remember that methodological approaches should be flexible and able to adapt to changing circumstances.

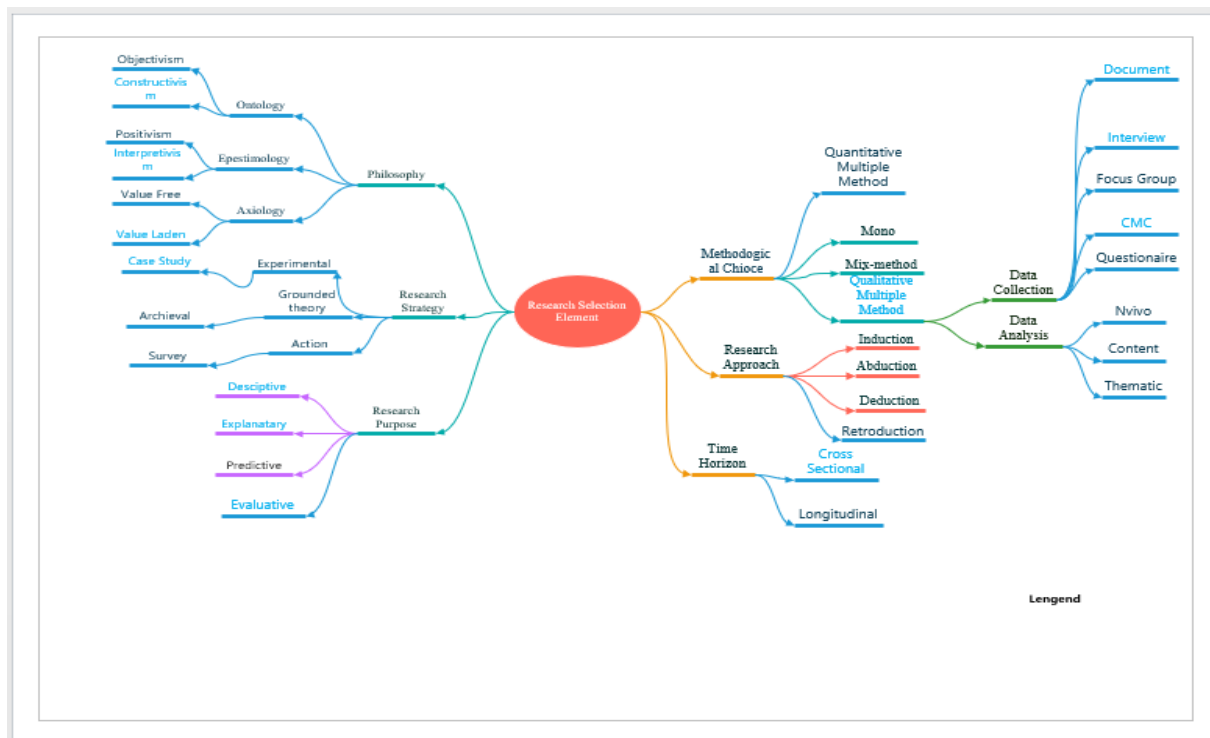


Figure 4.1: Research Methodology Mind Map

4.4 Research Philosophy

Rashid et al. (2019) described research philosophy as "the questioning of basic fundamental ideas and the necessity to adopt a meaningful understanding of a particular topic." This is how research philosophy is characterised. The researcher went on to explain that the philosophical perspective provides a practical beginning point since it allows the research approach to communicate in a context that is clearly understood by others without the presence of any ambiguities.

The philosophical proposition that a researcher makes regarding how he or she chooses their technique does have a significant influence, but how the issue being studied is valued does have a greater impact (Saunders, 2021). Unquestionably, philosophical viewpoint, as well as shared beliefs, plays a significant role in the selection of the study paradigm, data gathering approach, and method of analysis (Benz et al., 2008).

Literature researchers have successfully identified several philosophical points of view that could guide their work. But, to support the researcher determine the best choice for this study, there are three main parts of the research philosophy lens such as: ontology, epistemology, and axiology (Pearlson, 2020).

4.4.1 Ontological Consideration

Ontological considerations Understanding the philosophical framework of a research effort reveals the researcher's ontological position, which relates to their view of reality. Ontology explores the core aspects of existence and reality through two main perspectives: realism and idealism (subjectivism). Realism asserts the existence of an objective reality separate from individual experiences, whereas idealism highlights the subjective construction of reality through perceptions and interactions. Ontological viewpoints impact research methodology and the interpretation of findings.

Interdisciplinary techniques are crucial for researching players and practices in the Nigerian construction industry's affordable housing plan due to the complex nature of the built environment. Researchers need to use their ontological perspective, combining personal experiences and disciplinary expertise to comprehend and analyse the diverse elements of the building industry.

The **objectivist** viewpoint regards the building industry as an external entity and concentrates on analysing supply chain dynamics without considering individual perceptions. Subjectivism, often known as idealism, views reality as socially produced, with different viewpoints influencing interpretations within the construction industry. Fidan et al. (2011) argued that **Subjectivist** ontology is beneficial for comprehending sustainable procurement procedures in prominent construction companies because of the intricate and socially integrated characteristics of building projects. Furthermore, the social actors continually interpret and interact with each other and their constantly evolving environment to generate dynamic phenomena. Social agents also interpret these social occurrences. Saunders et al. (2012) proposed that organisational management illustrates subjectivism, as managers typically possess a distinct interpretation and comprehension of their roles.

Reed and Rudman (2023) Realism, with its objective approach, recognises the presence of culture and organisation independent of individual viewpoints. This method is important in construction management study since scholars create human viewpoints to understand the truth. Researchers must present their findings based on their chosen ontological perspective, while addressing epistemological problems to guarantee the accuracy and credibility of information dissemination.

After identifying his/her ontological viewpoint, a researcher must communicate his/her findings as **subjectivism/constructivism**. In transmitting knowledge, acceptable, valid, and legitimate knowledge are assumed. Epistemology questions. Hence the purpose of the study.

4.4.2 Epistemological considerations.

Epistemology is the branch of philosophy concerned with what knowledge is and how it is formed. Epistemology is the study of the relationship between the researcher or potential researcher and what can be known (Yazan, 2015). It is defined as knowledge as "knowing how you can know," and extends on this by questioning how knowledge is formed. What criteria distinguish excellent from bad knowledge, and how should reality be represented or described?

Yazan (2015) emphasized that epistemology covers concerns about the research project's approach and methodologies, which relate to our understanding of knowledge and how it is formed and the value we attribute to it. Moon and Blackman (2014) argues that the purpose of epistemology is to provide a philosophical foundation for what types of knowledge are feasible and how to assure that they are both adequate and justified. Answering epistemological issues is contingent on the researcher's ontological viewpoint. (Lincoln et al., 2011). According to Saunders et al. (2009b), there are two basic forms of epistemological assumptions: Positivism and Interpretivism. However, a researcher is confronted with a variety of epistemologies, which provides a broader selection of ways for conducting academic research (Saunders et al., 2015). According to Creswell (2014), the most prevalent epistemologies are post-positivism, constructivism, transformational, and pragmatism.

Furthermore, Easton (2010) emphasize that the basic premise of positivism is that the social world exists externally and that its features should be measured objectively rather than inferred subjectively through feeling, reflection, or intuition. While Interpretivism seeks answers for human behaviour by studying how people see the world (Gray, 2016). According to Easton (2010) interpretive research assumes that access to reality is only possible through social constructions such as language, consciousness, shared meanings, and instruments.

4.4.2.1 Post-Positivism

It is also known as positivism and is primarily focused on quantitative research. The assumption asserts that there is a single objective reality. Post-positivism is a deterministic worldview in which causes determine outcomes or effects (Creswell, 2014). Hence, the difficulties examined by post-positivists reflect the necessity to identify and evaluate the factors that influence experimental results. In addition, it is simple in the sense that the objective is to reduce the ideas to small, distinct sets that can be tested, such as the components that compose the hypothesis and research questions. Crotty (1998) argues that the postpositivist perspective of what it is to know, understandings, and values are objectified in the people or object being examined. When it is conducted in the proper manner, objective truth can be uncovered. Post-positivist findings will likely be considered objective and generalizable. However, the results will be restricted in their ability to provide a comprehensive and nuanced understanding of organisational realities, given the diversity of individual contexts and backgrounds.

Within the field of construction management research, the positivist epistemology has been contested. This is a result of the scientific basis for the discipline's primary research areas—people and organisational processes—no longer being applicable (Fellows & Liu, 2021). This shortcoming renders this epistemological perspective inappropriate for investigating the sustainable procurement procedures of construction-contracting enterprises.

4.4.2.2 Constructivism/Interpretivism

This epistemological position is more associated with or considered an approach to qualitative research. It is also referred to as social Interpretivism and combines constructivism (Creswell, 2014). Gray (2016) argued that by asserting that there is no undiscovered objective truth, constructivists reject the post-positivist point of view. Instead, a truth, or meanings, emerges from our interaction with the reality of our environment since meaning is not discovered, but rather formed. Like this, Kivunja (2014) outlined how social Interpretivism think that people desire knowledge of the environments in which they live and work. Additionally, people assign subjective interpretations to their experiences, meanings that are focused on certain things or objects.

The researcher is focused on studying a social phenomenon by doing research among individuals to get insight into the phenomenon from their perspective and viewpoint (Creswell, 2009; Saunders et al., 2009; Saunders & Tosey, 2012). Interpretivist research must fully engage in the process by taking on a sympathetic perspective (Saunders et al., 2009). Saunders & Tosey (2012) explain that interpretivist research is shaped by the values of the researcher and the persons engaged. The process includes investigating and gathering qualitative data from a limited sample size. Hence the aim of the study.

4.4.2.3 Transformative

This assumption focuses on marginalised groups and individuals. The assumption criticises post-positivist and constructivist assumptions by saying positivists impose structural laws and theories. Such laws and ideologies do not even address power and social justice, discrimination, and oppression. In contrast, constructivists really do not advocate for adequate action to support oppressed individuals. (Hunt & Hansen, 2010; Olssen, 1996).

Mertens (2019) affirms that the transformative paradigm emphasises the use of qualitative and mixed methodologies to describe the ecological complexity of a situation and to gain access to the voices of individuals who have been historically marginalised. Through establishing relationships of trust with participants, it may be possible to obtain knowledge that is not accessible through other means within this framework. To avoid marginalising the participants during the investigation, they are involved in formulating the questions, collecting the data, analysing the data, and reaping the benefits of the research. This strategy, however, focuses mostly on those who are marginalised in society (Mertens, 2019), which is not the main objective of this study.

4.4.2.4 Pragmatism

This type of epistemology develops from events, circumstances, and results rather than situational factors (as in post-positivist). Duga Jamus (2020) stated that a paradigm pragmatics has challenged older approaches grounded in the philosophy of knowledge while also offering intriguing perspectives on how to comprehend the nature of social research. Furthermore, it was suggested that pragmatism emphasises the significance of connecting beliefs and actions in the investigative process that underpins all knowledge-seeking, including the endeavour that we refer to as research

(Kelly & Cordeiro, 2020). The pragmatist regards an inquiry as open-ended and seeks to provide tools that will help us as participants cope with the outside environment when attempting to address a research topic (Bacon, 2012). Additionally, a pragmatic epistemology sees knowledge as being created with the intention of improving one's ability to govern their existence and participate in the world (Kaushik & Walsh, 2019).

Additionally, pragmatism does not adhere to any system of philosophy or conception of reality; rather, it concentrates on the research problem and offers a workable solution (Saunders et al., 2019; Wahyuni, 2012). Anti-pragmatists have noted that one of the flaws of pragmatism is its emphasis on practical solutions to problems because what is meant by utility or workability might be ambiguous until a researcher specifically defines it (James, 2020). According to James (2020) such flaws can be addressed by the researcher being strategic and reflexive in avoiding them. Therefore, the pragmatism epistemology will only partially address the research issues in this study while addressing the central research topic. Thus, an alternative strategy is required for this study.

4.4.3 Axiological Considerations

The science of value is known as axiology. It is a discipline of philosophy that investigates value judgements in order to provide a theoretical account of the nature of moral, prudential, and aesthetic (Saunders et al., 2019). It also raises the issue of what role values have in scientific decisions (Saunders et al., 2019). When evaluating research philosophy and approach, it's crucial to think about how the researcher's own values might play a role in each stage of the research process. According to Saunders et al. (2019) our values are the guiding cause for our actions. Furthermore, axiological skill is demonstrated by articulating their values as a basis for making decisions about the research topic and research approach.

Axiology, a philosophy branch, affects research methodologies and their value (Dawood & Underwood 2010; Saunders et al. 2016). Research item values affect research process and results quality. The researcher's objective or subjective criteria, opinions, views, and experiences impact their philosophical perspectives and research methodologies (Saunders et al. 2012). Saunders et al. (2016) classify research as value-free or value-laden based on researcher participation.

Value-laden research is impacted by the researcher's values and has a subjective objectives and ontology (Bamidele, 2019). Discussing several philosophical viewpoints, particularly focusing on the one relevant to our research in the following parts. Researchers have their own preferences when it comes to their philosophical stance. The researcher can also articulate values that can be used to make decisions about this investigation. As a result, the values and data collection methodologies of the research will be reflected in this study. Data acquired through interviews will be valued highly by the researcher, who will place a higher weight on human engagement with respondents than those expressed through anonymous questionnaires.

Table 4.1: Philosophical Stance Sequence

Pure Science	Philosophical Stance	Social Science
Objectivism/Idealism	Ontology	Subjectivism/Realism/Constructivism
Facts& Numbers form the Evidence base.	(Truth)	The existence of multiple opinions and Judgment
Positivism	Epistemology	Interpretivism
Only controlled event analysis can do it.	(Knowledge)	investigating and gathering qualitative data-Integral & Flexible data
Value Free	Axiology	Value laden
the researcher has no personal influence	(Time Bound)	value-laden based on researcher participation.
Quantitative-Hypothesis	Methodology	Qualitative-Research Question
Questionnaire	(Approach)	Interview, Multiple case study, Document, Focus Group -Questionnaire, photograph.

The goal of offering such basic underpinnings on research philosophies and techniques is to elicit the potential assumptions of each, which will influence the selection of a paradigm for this study. Because the goal of this study is to build a framework for improving existing policy implementation for oil and gas-induced resettlements in Nigeria's south-south region, the social science component must be understood. As a result, the philosophical perspective used in this study will be

pragmatic, driven by an abductive methodology and a sequential mixed-method research plan. This is because mixed methods research allows for a plurality of paradigms, which is well supported by pragmatic assumption, according to. Pragmatism is not committed to any one system of philosophical assumption, which applies to mixed-methods research in which inquirers are drawn liberally from both quantitative and qualitative assumptions.

Furthermore, according to Creswell (2014), the qualitative and quantitative perspectives are essentially incompatible due to epistemological incompatibilities. Furthermore, according to (Creswell, 2014), the pragmatic method is founded on knowledge claims coming from actions, contexts, and consequences rather than prior conditions. And, as Saunders et al. (2019) point out, pragmatism favours many perspectives to better answer the study questions. According to Kivunja and Kuyini (2017), the pragmatic premise also supports many subject realities, implying that there is no single way to recognize reality in every phenomenon. As a result, even if it is on an individual or group level, what the researcher views as genuine or actual, or information in a circumstance is interpreted out of their brains.

To obtain data that best answer the research question, a researcher who adopts this perspective will use both qualitative and quantitative sources of information as well as a variety of data collection techniques, or what some writers have referred to as a plurality of methods. For this study's research question to be answered, various methods and approaches need to be tried out and used. By doing this, the researcher can learn more about how Construction Industries in Nigeria work. Though, the pragmatist's way of thinking about knowledge will be best for this study (Creswell, 2014).

The pragmatic assumption, in contrast to other philosophical assumptions, gives the researcher the opportunity to integrate his views and activities into the process of inquiry and offers prospective avenues for comprehending the nature of social research or reality. The necessity of tight cooperation between the many actors in the implementation of a project under sustainable procurement provides another benefit of choosing the pragmatist perspective in this study (Bui et al., 2016).

Thomas et al. (2018) exploring how this collaboration occurs in the implementation of sustainable projects would be well welcomed when the researcher seeks to identify

the difficulties from a practical standpoint and offers solutions that will guide future practise.

As a result, there will be a common influence from both quantitative qualitative oriented paradigms that will use the mixed method research strategy, as this study intends to propose a framework to improve the existing policies for the implementation to Develop an Infrastructure Delivery Systems (IDS) Model That will address Failed Infrastructural projects in The Nigeria Construction Industry in the South-South region of Nigeria. The pragmatic paradigm will provide a superior world perspective for this study, further justifying the mixed method approach as the optimum strategy. The picture below depicts a framework for researching the connectivity of worldviews, as well as the design and research methodologies, as given by Kyrillidou (2016), which will be used in this study.

4.5 Research Approach

In determining how to respond to research questions, a researcher must select the most appropriate method (Taherdoost, 2016). The three primary procedures open to the researcher are deduction, induction, and abduction, however some authors, such as (Taherdoost), employ a fourth approach known as retrodiction (2016).

4.5.1 Deductive Approach

The way theories are made is more like how scientists find out new things. The deductive method tries to explain a link between two ideas by coming up with a theory, which can be tested to see if it is true. The logic of the Deductive Approach, according to Saunders et al (2012), is based on the proposition that if the premises are true, the conclusion must likewise be true. This method has its roots in the natural sciences, where rules provide the foundation for explanation, allow for the anticipation of events, forecast their recurrence, and hence allow for their management. Deductive reasoning operates from the broadest to the narrowest level of abstraction. It is commonly referred to as a "top-down" method. The conclusion is logically deduced from the premises (Cooper, 2021). According to Yin, when employing a deductive approach, the multiple-case study commenced by formulating theoretical propositions concerning various reading strategies and their potential modes of operation. In other words, the researcher started with theoretical concepts or hypotheses about different reading

techniques and how they might function and then gathered and analysed data from multiple cases to test or refine those initial propositions.



Figure 4.2: Deductive Research Approach Source: Azungah (2018)

4.5.2 Inductive Approach

While the inductive approach directs the researcher to use obtained data to investigate a phenomenon, find patterns and themes, and establish a conceptual framework, the theory is formed based on data analysis (Saunders et al., 2019). Furthermore, when using the inductive method of reasoning, it might be better to study a small number of objects than a large number when using the deductive method.(Saunders et al., 2019)Nevertheless, it is important to remember that the descriptions made by the inductive method are limited in time and space and are not universal laws, as its original supporters claimed (Benz et al., 2008). Imenda (2014) made it clear that the deductive research method requires coming up with a conceptual and theoretical framework before testing it in the real world. While, the inductive method, on the other hand, is the opposite of deduction, as it tends to move from the real world to coming up with explanations and theories based on what was seen. Yin suggests that from an inductive standpoint, researchers can employ cross-case synthesis when analysing multiple case studies to uncover novel processes or reading strategies that may not have been previously identified or hypothesized. In other words, by comparing and synthesizing findings across various cases, the researcher can inductively derive new insights, patterns, or reading techniques that emerge from the data itself rather than testing pre-existing theoretical propositions.



Figure 4.3: Inductive Research Approach Source:Azungah (2018)

4.5.3 Abductive Approach

According to Muthukrishna and Henrich (2019), abduction is the process of generating educated assumptions about the best approach to explain a collection of unusual or abnormal facts derived from study findings. In the absence of comprehensive evidence or assurance, abduction allows the decision-maker to proceed. Instead, then following a logical procedure, discoveries in science are frequently gained through an intuitive leap that emerges, which is known as abductive reasoning (Moon & Blackman, 2014).



Figure 4.4: Abductive Research Approach Source: Azungah (2018)

In the exploration phase, the researcher explores the available data investigating the scientific phenomena and transforms the findings into the research problem that would be explained abductively. In the examination phase, the researcher expands his or her background knowledge of the phenomena to unravel rules for empirical inference and then generate study hypotheses. The selection phase involves empirically validating the hypotheses and then choosing the credible ones. The last phase, the explanation phase, is the casual and narrative explanations of the findings.

4.5.4 Selection of Research Approach

This research employed both inductive and deductive approaches to develop an enhanced method for implementing an infrastructure delivery system for affordable housing policies. A deductive approach was utilized to establish and validate an initial starting point. Concurrently, an inductive approach enabled the discovery of novel processes or strategies and the formulation of a theory regarding the optimal way to address the research objective by developing a conceptual framework. This framework was subsequently tested and refined through the collection of new data. Due to the iterative nature of this process, an abductive approach to theory development was deemed suitable for this study. Furthermore, an abductive approach aligned with a pragmatist research philosophy and facilitated more robust results by integrating elements of both deductive and inductive approaches. The combination of these approaches allowed for a comprehensive exploration and refinement of the research objective, leading to a more robust and well-informed outcome.

In this research, employing these conceptual approaches enabled the integration of the viable systems theory. The utilization of both inductive and deductive reasoning, coupled with an abductive approach to theory development, facilitated the incorporation of the viable systems theory into the study's theoretical framework and methodology. This combination of approaches allowed for a comprehensive exploration and refinement of the research objectives, while leveraging the insights and principles of the viable systems theory to inform the development of an enhanced infrastructure delivery system for affordable housing policies.

4.6 Research Purpose

Blaikie (2010) found that various research approaches can be used to achieve different research purposes. These approaches include quantitative, qualitative, and mixed-method approaches. Each approach can be used to explore different types of research questions, depending on the desired outcome.

According to Blaikie (2010), research purposes are concerned with the type of knowledge sought after by the researcher when deciding to embark on a research activity. He admits that although several purposes exist, it is not uncommon to find a particular research activity in which the researcher has a set of purposes instead of

one purpose. Often, this occurrence is dependent on the degree of complexity and scope of the research.

Table 4.2: Research Purposes and Implemented Question type.

Purpose	Inductive	Deductive	Adductive	Retroductive	Research Question
Exploratory	C		C		What
Descriptive	C		C		What
Explanatory	A	C		C	Why
Predictive	B		C		what
Understanding			C		Why
Change		A	B	B	How
Evaluative	B	B	B	B	What and why
Assess impacts	B	B	B	B	What and why
Source Blaike 2010	C=major activity		B =Moderate		A= minor

4.6.1 Purpose of this Study

Following the study's aim and objectives, it is simple to deduce the study's purpose, which is to discover viable solutions to the problem and make suggestions for addressing the issue of Affordable Housing Policy in the south-south region of Nigeria. Furthermore, this study will provide insight into the relationship between organisations within the IDS and how they influence each other. This could lead to a better understanding of the dynamics within the IDS, as well as the potential for organisations to collaborate and cooperate for the development of the IDS phenomenon. studying policy implementation, researchers gain a deeper understanding of how policies affect different groups and how different groups interact with each other in terms of policy outcomes. This helps researchers to understand what motivates certain political decisions, how they are implemented, and the consequences of policy decisions on different groups. By analysing the data, researchers can gain insight into the causes of certain issues and identify which strategies and interventions are more likely to produce successful outcomes. This can help inform decisions about how to best address the problem and how to distribute resources. Therefore, it can be inferred that the purpose of the study is to address the housing shortage and other associated housing challenges in Nigeria, the focus of the current research is to fill the existing

gap by critically unravelling the perennial issues of affordable housing programmes in Nigeria as well as exploring the challenges and barriers associated with implementation among the stakeholders. Further, this study will investigate existing policies, effective stakeholder engagement, improved policy monitoring and evaluation, and the development of a robust Infrastructure Delivery Systems (IDS) framework for affordable housing, which are proposed as essential steps toward sustainable solutions in the South-South region of Nigeria.

The abductive approach allows for the study to be more open-ended and flexible, allowing for the researcher to make more observations, draw more conclusions, and make more connections between different ideas and concepts. It also allows for the researcher to be more creative in their approach, which is essential when trying to understand a complex phenomenon.

4.7 Research Strategy

(Rashid et al., 2019) described a research strategy as the operationalized methodologies, techniques, or procedures researchers use to conduct their studies, where the research strategy is a direct result of the philosophy, they have chosen approach and. epistemology given that the strategy uses procedures to address the issues raised by the study. Both qualitative and quantitative techniques may be included into any research strategy that calls for them ((Queirós et al., 2017). Yin (2011) said that research methods are chosen based on whether the study is exploratory, explanatory, or descriptive, and on whether the approach is inductive or logical. There are no research strategies that are better or worse than others, according to Saunders et al. (2009a); rather, explained what matters is how well they are able to respond to the research question.

Table 4.3: Characteristics between Survey, Experiment, and Case Study Strategies

Survey	Experiment	Case study
A reasonably substantial number of instances are being investigated.	Only a few cases were investigated	a limited number of instances are being studied.

obtained and examined data on a select few case-specific characteristics.	Each case was examined for a few specific features and the information was gathered and analyzed	collected and evaluated data on a wide range of case-specific characteristics.
investigation of a sample of naturally occurring instances that were chosen to maximize the samples' representation in relation to a wider population.	Analyze of cases created with variables controlled	Study of spontaneously occurring situations; or, in the form of "action research," study of examples produced by the researcher's actions, but where the focus is not on regulating the variables to gauge their impact.
The priority is the Quantification of data	The priority is the Quantification of data	Data quantification is not a priority. Indeed, qualitative data may be considered superior.
This is occasionally considered as a base for theoretical reasoning, the primary goal of this research technique is empirical generalisation from a sample to a limited population.	There are two types of inferences: theoretical- the development and testing of theories, and practical- the evaluation of interventions	The primary aim may be comprehending the case study in and of itself, with little regard for theoretical inference or analytical generalisation. Alternatively, the findings' broader significance might be conceptualised in terms of the supply of vicarious experience as a foundation for naturalistic generalisation or transferability.
Surveys concentrate on both recent and historical occurrences.	Recent events are the focus of this strategy.	This in addition addresses present-day issues.

However, surveys are employed to provide responses to queries beginning with: Who, What, Where, How many, and How much?	The 'why' and 'how' questions are typically addressed through experiments.	Case studies are also focused with answering the 'why' and 'how' issues that arise in each research.
---	--	--

4.7.1 Case Study as a Research Strategy of Choice

The choice to use the case study method in this study is based on the strengths and weaknesses of the case study method compared to the experiment and survey methods, which are shown in Table 4.3. Also, most experts seem to agree that case studies are a good way to study things in depth (Awuzie, 2014a, 2014b; Flyvbjerg, 2011; Yin, 2011). Apparently establishing a connection between the implemented strategy and the chosen approach. Blaikie (2018) argues that the characteristics of the case study strategy, particularly as they pertain to the development of context-dependent comprehension, thus, making it suitable for the abductive method. Case study strategies are typically divided into two distinct categories: Case study strategies are typically classified across two separate dimensions: the variety of case studies employed (single/multiple) and the percentage of cases that indicate the unit of analysis (holistic/embedded) as shown in Figure 4.5.

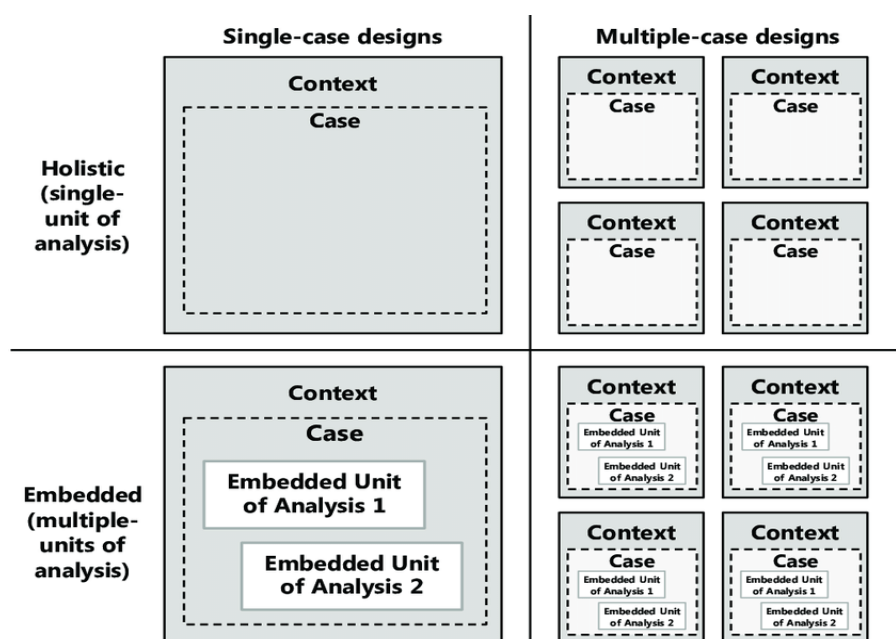


Figure 4.5: Case study research and application

Source: (Yin, 2018)

4.7.1.1 Single versus Multiple Case Studies

According to Yin (2011) Case studies can be created using one or more cases. An exploratory case study is intended to be applied to a single instance of a phenomenon that calls for exploration reasoning. Single case studies, which go beyond the event's exploration and explain the event's many elements, offer a detailed comprehension of an event. Yin (2011) used the Cuban missile crisis as an example where intricate bureaucracies and politically motivated employees were assumptions explored in the case and the researcher was able to explain the events in accordance with each theory despite them being rival theories. When examining an established theory or drawing a new conclusion from the findings, it is challenging to replicate individual cases. Therefore, the researcher findings might be biased when generalising such research since patterns from the single instance cannot be replicated or corroborated through additional examples. This is among the drawbacks of a single case study.

Alternatively, it has been established that multiple case studies are better suited for developing theories, assessing theories, established research validity, and reaching analytical generalisation than single case studies since a single theory may be tested in various settings and environmental conditions in several cases. Numerous case studies share characteristics that are spread throughout various kinds of cases. But using multiple cases has also been criticised as a way for qualitative researchers to try to use statistical generalisation against analytical generalisation (Easton, 1995). Since then, Yin (2009) and Dubois and Gadde (2002) have replied to this complaint. Eisenhardt (1989), Eisenhardt and Graebner (2007), and Amaratunga and Baldry (2001) all say that the multiple case study method helps and keeps case repetition at a high level. (Yin, 2018), agrees with this point of view, saying that multiple case studies may be a better way to build a theory than a single case study. To confirm the validity of the construction, the use of different sources of evidence has also been recommended (Yin, 2009). When testing a collection of cross-case assertions with many cases, external validity and replication are improved in both literal multiples.

4.7.1.2 Holistic versus Embedded Case Studies

Moreover, Yin (2018) describes two other types of case study strategies: those that are both comprehensive and integrated. In the first case, the whole situation is made

up of one Analysis unit, but a built-in state is made up of more than one Analysis units. These cases are part of a bigger picture and are handled on their own. IDS is considered as a comprehensive condition in the context of this study by applying appropriate systems theory and networking all IDS participants from an organisational perspective. According to Yin (2009), the holistic case study is favourable when no logical sub-units can be found and when the applicable theory underpinning the case study, such as the viable systems theory, is itself holistic. The drawback, according to him, is that the researcher could have carried out the study on a conceptual level and may not have precise measurements or statistics. The researcher was able to resolve this issue by using the abduction technique and the idea of systematic inclusion.

This researcher implemented a strong method called multiple case studies to reach the goal of the study. This method allowed for effective replication and comparisons of the effects of different context factors and personal differences on IDS accuracy; using multiple case examples, a theory may be developed. The systematic collection and abduction method relies on overlapping data gathering and analysis as one of its core features. (Savin-Baden & Major, 2023; Yin, 2009) argues that multiple case studies can enhance the robustness and generalizability of policy assessment findings by allowing for cross-case comparisons and the identification of common patterns or divergent outcomes. In addition Goodrick (2020) suggests that comparative case studies can improve the efficiency and effectiveness of policy evaluation by enabling researchers to analyse multiple contexts, identify best practices, and draw lessons from diverse settings. Furthermore, Stufflebeam and Coryn (2014) highlight the benefits of using multiple case studies in policy evaluation, as they allow for a more comprehensive understanding of the policy's implementation and outcomes across different contexts, ultimately leading to more informed decision-making. Therefore, Policy assessment studies can be made more efficient by using many case studies.

At various stages of the study, the sources came from various kinds of interviews, documents, and computer-aided communication techniques (CMCs). Additionally, Yin (2009) lists the parts of a correctly designed case study approach: Study the questions, their theses (if there are any), their units of analysis, and their reasons, link data to other data and give rules for understanding the results (Cho & Lee, 2014). These parts would be considered in this research and discussed further in the subsequent sections.

4.8 Case Selection Criteria and Justification

Having designed and justified the use of several case studies, the criteria for case study selection must be explained. A variety of ways are being investigated for case selection. Denscombe (2014) characterized a case selection approach as random and information-focused, highlighting its significance in the overall case selection strategy. A random selection, as the name indicates, picks samples at random from a large sample in order to prevent subjective bias, whereas information-oriented selection instances are chosen based on a trait or attribute of interest within the population. Furthermore, Yin (2014) highlights that the case study strategy employs theoretical sampling in the selection of examples to be utilised in the research itself. Theoretical sampling varies from quantitative sampling in that it is motivated by the requirement to pick cases that support the replication or expansion of an existing or emerging theory in order to give diverse sorts of examples (Butler et al., 2018).

Selection of the appropriate "case" is essential to better comprehending the phenomena being researched (Patton, 2014). This viewpoint is reinforced by Graue (2015) who pointed out that using the word "case" identified a case study with a particular location, population, or organisation. The selection of these cases was motivated by a desire to enable theoretical logic and replication, and thus facilitate the achievement of analytical generalization through replication (Yin, 2011, 2018).

This study's selection of case studies was based on several key criteria. Firstly, the chosen asset owners have substantial experience in implementing the Affordable Housing Policy, ensuring that they can provide valuable insights into the challenges and best practices associated with such projects. Secondly, the Project demonstrate knowledge to due process throughout the project operation, which is essential for understanding the factors that contribute to successful project outcomes. Thirdly, the case studies chosen for this research can be linked to failed projects, allowing for a comparative analysis of the factors differentiating successful and unsuccessful initiatives. Fourthly, the organisations involved in these case studies expressed a willingness to provide access to data, which is crucial for conducting a comprehensive analysis. Finally, due to time constraints and proximity considerations, the three selected states are located within a specific geo-political zone, namely the South-South region of Nigeria. However, it is important to note that the study is not limited to investigating phenomena in a single state, and the six case studies were drawn from

the six states in the South-South region. As a result, there are no contextual implications for the data collected, as the findings are intended to be broadly applicable to the implementation of Affordable Housing Policy across the region.

The second section discusses the chosen examples in detail. However, in this part, we will reflect on the criteria employed in case selection and how these criteria were amended to allow for literal and theoretical replication and analytic generalisation.

Figure 4.6 shows the case selection criteria and how changing these criteria impacts analytic generalisation by allowing for theoretical and literal replication.

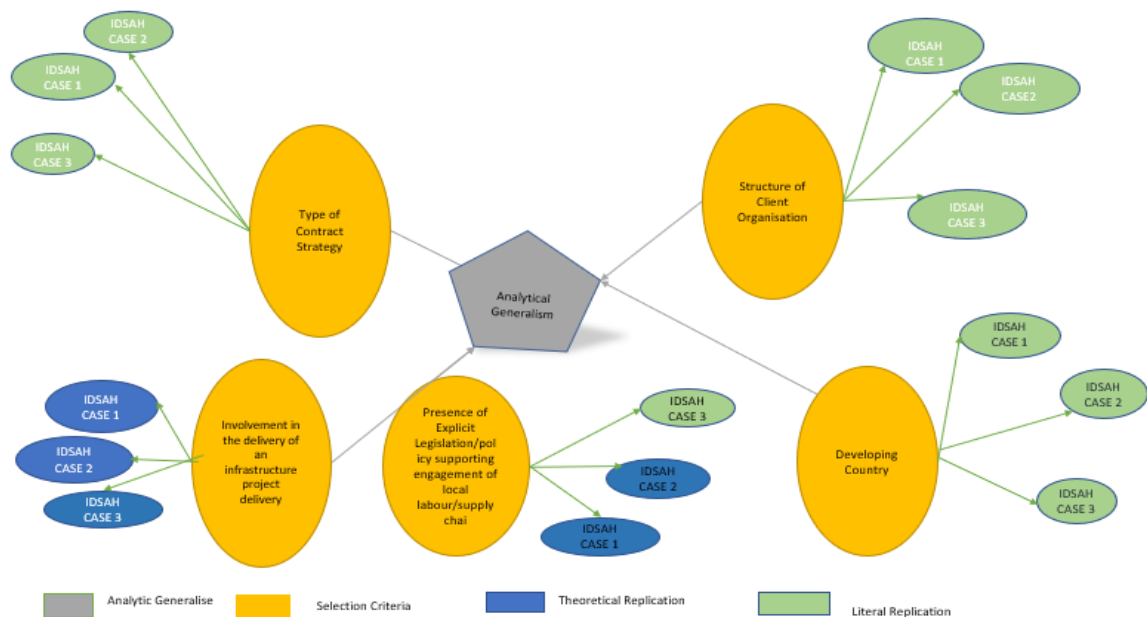


Figure 4.6: Cases Selection Criteria (Source: Author)

1) Involvement in the Delivery of an Infrastructure Project

Theoretical replication in this study involved selecting three affordable housing projects where different levels of stakeholder involvement in the infrastructure delivery system (IDS) were expected based on theoretical considerations. One project was chosen where high stakeholder involvement in the IDS was anticipated due to certain contextual factors or project characteristics. Another project represented a case where low stakeholder involvement was theoretically predicted based on contrasting conditions.

The third project was selected as a case where a moderate level of stakeholder involvement in the IDS was expected, falling between the high and low involvement

cases. By including these three cases with varying theoretical replications, the study could examine whether the observed patterns of stakeholder involvement aligned with the theoretical predictions.

If the case findings corroborated the anticipated contrasting levels of involvement, it would strengthen the theoretical propositions or frameworks underpinning the IDS for affordable housing projects. Conversely, if the observed results contradicted the theoretical predictions, it would suggest revising or refining the existing theories or proposing alternative explanations for the involvement patterns.

This approach of theoretical replication allowed the researcher to test and refine theoretical concepts by intentionally selecting affordable housing projects expected to yield contrasting stakeholder involvement results, thereby enhancing the robustness and applicability of the findings across diverse project contexts within the IDS framework.

2) Location of the Project

The researcher chose to focus on Port Harcourt, Bayelsa, and Akwa Ibom states in the south-south region of Nigeria for this affordable housing policy implementation study for several reasons: Existing affordable housing initiatives: These three states have ongoing or recently implemented affordable housing projects and policies, providing suitable cases for studying the infrastructure delivery systems and stakeholder involvement processes. Also, Geographical proximity: These three states are located in close proximity to each other within the south-south region, allowing for a more controlled comparison of the infrastructure delivery systems (IDS) for affordable housing projects. Furthermore, Socio-economic similarities: The states in the south-south region share comparable socio-economic characteristics, such as income levels, urban-rural dynamics, and cultural factors, which can influence affordable housing needs and policy implementation. In conclusion, focusing on Port Harcourt, Bayelsa, and Akwa Ibom, the researcher could control for certain regional and environmental factors while capturing the diversity of experiences and challenges in implementing affordable housing policies through different infrastructure delivery systems within a specific geographical area.

3) Type of Contract Strategy

Considering the diverse array of contracting approaches at the disposal of clients aiming to facilitate infrastructure projects, it is pertinent to undertake an inquiry into the ramifications of these contracting strategies on the roles and authorities of different stakeholders involved in their respective IDSs, specifically in the context of executing policies or client-directed mandates. Given that the three examined cases exhibited distinct contracting strategies, the researcher could evaluate the effects of diverse contracting methodologies and procedures implemented from the inception stage to the execution and the outcome.

4) Internal Structure of the Client Organisation

The researcher aimed to determine the impact of the client's organizational presence on effective inter-organizational dynamics in the IDS, including communication and collaboration. This criterion was used for case selection, and the researcher made several alterations to aid in the analytical generalisation of study findings.

4.8.1 Reason for Three Failed Project

The selection of three failed projects as case studies offers significant learning value by revealing critical pain points, systemic issues, and organizational weaknesses that might remain hidden in successful projects. This approach enables thorough risk identification and pattern recognition across multiple cases, strengthening the validity of findings through cross-case analysis. However, incorporating a successful project as a comparator would provide several valuable benefits. It would serve as a benchmark for balanced analysis, helping distinguish between common challenges and actual failure factors while demonstrating effective solutions and best practices. The successful case would provide practical implementation guidance, showing how similar risks were effectively reduced, and enhance the research's credibility through a more balanced methodological approach. This comprehensive perspective, examining both successes and failures, would offer organizations more actionable insights for future project planning and a clearer understanding of the distinction between normal project challenges and critical failure points.

4.8.2 Establishing the Unit of Analysis (UA)

The unit of analysis indicates the level of what or who the research questions aim to address (Yin, 2018). This is an entry point of the investigation which information is gathered and disseminated. In the social sciences, this might take the shape of an organisation, a group of people, an individual, or an artefact. It specifies what the researcher intends to investigate through the case study. Relationships between organisations captured in IDS comprise the unit of analysis in this research (Alam, 2021; Yin, 2018).

Consequently, based on the facts established by the researchers, the unit of analysis for this study is “Infrastructure Delivery Systems for Failed Affordable Housing Projects in the South-South Region of Nigeria”. The IDS may be compared to an organisational field in several ways (DiMaggio and Powell, 1983).

4.9 Methodological Choice (Research Design)

Methodological Choices of research design are Quantitative, qualitative, or mixed research designs are the three basic categories of research designs (Leavy, 2022). According to Bryman (1984) and Yilmaz (2013), in quantitative research, the problem of how to measure things is at the basis of how data are collected and analysed. Hsieh and Shannon (2005) and Denscombe (2017) argues that the qualitative category of research design is more concerned with the use of language in data collection and subsequent analysis than with the use of numbers (quantitative). In addition, Mixed methods, on the other hand, involve the combination of quantitative and qualitative approaches (Saunders et al., 2019).

The three approaches mentioned as shown in Table 4.4 typically guide the selection of data collection and analysis techniques. However, it should be noted that the selection of research methods to be employed in a research activity is dependent on a broader set of criteria, irrespective of research objectives or research design category (Yilmaz, 2013; Yin, 2018).

Table 4.4: Qualitative and Quantitative Comparison Source : (Robson, 2002)

QUANTITATIVE METHODS	QUALITATIVE METHODS
Hypothetical and deductive; the main emphasis is on trying hypotheses.	Exploitative viewpoint
The quantitative method is focused on getting results.	This method is focused on the process.
The analysis is detailed and specific.	assumes that the phenomenon being studied is seen as a whole.
Generalisation based on demographic characteristics.	Generalisation based on a single organism's traits and environment.
Outsider perspective and distance from data.	Personal bias and being close to the data
Includes regulated measurements.	Observations and measurements conducted in the real world.
A rational and analytical approach.	Interpretation and logical reasoning.
The emphasis is on the facts and/or causes of social activities/occurrences.	Focuses on the ability to understand the interviewees' and respondents' perspectives.
The emphasis is on testing and verification	Emphasises comprehension

4.9.1 Rationale behind the Study's Methodological Choice

Due to characteristics such as described important to the conduct of this research, the choice of qualitative methodological selection is based on the philosophical position of the study. Attempts by the researcher to immerse himself in the worlds of the various participants would obviously amount to an exercise in futility if the researcher made any attempt to give these respondents with his own version of reality. This would be an exercise in failure since the researcher would be providing his own view of reality. In addition, it was believed that the use of qualitative choice would make it possible to get a more profound comprehension of the holistic interactions that take place inside the IDS, which is the primary focus of this research.

4.10 Sources of Data

Existing social policy research increasingly employs qualitative methods to facilitate a concrete comprehension of the inherent complexities associated with the interaction of various behaviours, requirements, and systems along a policy implementation pathway. Pfadenhauer et al. (2017) and May et al. (2016) as illustrated by an IDS,

qualitative methods enable the following: identification of the shape and nature of the phenomenon; investigating the causes or understanding of the phenomenon; evaluation of the effectiveness of the whole of IDS; and subsequent development of new approaches, plans, policies, or elements.

The term "research data" refers to the information gleaned from both primary and secondary sources throughout the course of a research project. Therefore, primary data refers to the information that is gathered by the research team only for the purpose of analysing the phenomena that is being investigated, and this information is compiled with the intention of catering to the requirements of the study and providing solutions to the problems that are being investigated. Researchers will acquire the raw data necessary for a certain stage of their investigation (for example, the raw data needed for pilot investigations), and then they will pick alternative ways to collect primary data of a different kind in later phases. Lack of ability to go to its Initial dates because of the difficulties of locating the appropriate individuals to advance time from their respective timetables. It might be challenging for researchers to inquire about the right data. In addition to this, they might be expensive as well. Retrieve raw data, which may need travel as well as the purchase of equipment to gather and keep Data.

4.10.1 Interviews – Unstructured, Structured and Semi-structured.

In this study, the researcher employed various forms of face-to-face interviews, including semi-structured and unstructured interviews, to explore the implementation of infrastructure delivery systems (IDS) for affordable housing in Nigeria's south-south region. Semi-structured interviews involve the use of a predetermined set of questions, ensuring consistency and comparability across interviews while allowing for flexibility to probe further into interesting responses. On the other hand, unstructured interviews are more open-ended and conversational, enabling the researcher to explore similar questions with different respondents at various times and under diverse circumstances.

The use of both semi-structured and unstructured interviews allowed the researcher to strike a balance between consistency and flexibility in data collection, gathering a wide range of perspectives and experiences related to the implementation of IDS for affordable housing projects. The choice of face-to-face interviews and the specific interviewing techniques used are closely linked to the sample size in qualitative research. In this study, the researcher employed purposive snowball sampling to select participants, with the final sample size determined by the principle of data saturation.

The use of semi-structured and unstructured interviews, combined with the purposive snowball sampling technique, allowed the researcher to access key informants with relevant expertise and facilitate the identification of additional information-rich cases. By continuing the interviewing process until data saturation was achieved, the researcher ensured that the sample size was sufficient to provide a comprehensive understanding of the phenomenon under investigation while maintaining the depth and richness of the data collected.

The purposive snowball sampling technique was an appropriate choice for this study, given the specific nature of the research topic and the need to access key informants with relevant expertise and knowledge. Purposive sampling allowed for the strategic selection of initial participants who possessed in-depth understanding and experience in implementing infrastructure delivery systems (IDS) for affordable housing projects. These initial participants, acting as informants, then facilitated access to additional relevant stakeholders through their professional networks, thereby enabling the identification of other information-rich cases through a snowball process. This approach was particularly valuable when studying a relatively specialized domain where relevant participants may be difficult to locate through conventional sampling methods. By leveraging the expertise and connections of the initial purposively selected participants, the snowball technique provided access to a wider range of knowledgeable stakeholders, ensuring a more comprehensive representation of perspectives and experiences related to the IDS implementation for affordable housing initiatives. Ultimately, this sampling approach enhanced the depth and richness of the data collected, leading to a more nuanced understanding of the phenomenon under investigation.

The sample size for this study was determined by the principle of data saturation, which is a common approach in qualitative research using purposive and snowball

sampling techniques. The researcher continued to collect data and include additional participants until no new significant information or insights emerged from the interviews and data collection process. This iterative approach captured a comprehensive range of perspectives and experiences related to implementing infrastructure delivery systems (IDS) for affordable housing projects. The final sample size was not predetermined but rather evolved organically based on the depth and richness of the data obtained from each participant. By employing a purposive snowball sampling strategy, the researcher could access key informants with relevant expertise, who then facilitated the identification of additional information-rich cases through their professional networks. This process continued until data saturation was achieved, indicating that further data collection would not yield substantial new information or insights. Ultimately, the sample size was sufficient to provide a comprehensive understanding of the phenomenon under investigation, ensuring the research findings' robustness and validity within the study's specific context.

4.10.2 Documents

Documents can provide a comprehensive overview of the history of the phenomena being studied, as well as provide an accurate perspective of the events that have occurred leading up to the present. Additionally, the data collected from documents can serve as an anchor point for further research, allowing the researcher to corroborate information gathered from interviews and surveys. Documents can also be used to identify and understand patterns and trends in the research area, helping to inform a deeper understanding of the subject. Furthermore, they can help to identify areas for further exploration and inquiry were built up throughout the interviews. The researcher used caution while using documents in a case study research study since he was aware that the materials were intended for a different purpose and were aimed at a different target audience. In this study, papers were mostly relied upon to achieve the goals outlined by Meyer (2001). The policy documents on the creation of local content and project information were among the materials available for public view.

4.10.3 Computer-Mediated Communication (CMC) Data Collection Techniques

According to Fawcett and Buhle Jr., 1995, Im and Chee, 2006, and Onwuegbuzie et al. (2010), there appears to have been a rise in internet usage in the conduct of modern research. These internet-based electronic data-gathering methods allow many people living in different parts of the world to engage in such research, offering their thoughts and sharing ideas without any restrictions. Im and Chee (2006), Onwuegbuzie et al. (2010), Fawcett and Buhle Jr. (1995), and Im and Chee (2006) all report an increase in the use of the Internet in contemporary research. Many people worldwide may participate in this research, freely expressing their ideas and providing their opinions thanks to the internet-based electronic data collection techniques. Online chat rooms and discussion forums are examples of the latter, whereas online interviews are examples of the former. Im and Chee (2006) cited Hisung (2000) as saying that asynchronous online forums, including the one this researcher used as part of the data collection techniques to assess the suitability of the IDS for evaluating affordable housing and its subsequent applicability in a case study, are important for obtaining data.

Furthermore, any researcher has enormous advantages. These advantages include its obvious qualities, convenience of usage, high rate of accessibility, and safety. According to Onwuegbuzie et al. (2010), the inherent reduction of issues related to time, location, cheap costs from movement and transcription, and the space of data interval, have made CMC approaches popular among researchers. Even though Lakeman (1997) cited the incapacity of certain potential respondents to access and utilise computers as a difficulty for using CMCs, he said that it was still a reliable method of gathering data for research.

Also, Rodham and Gavin (2006) assert that there was no difference between ethical problems in the CMC forms of data collecting and those in the more conventional data collection procedures. In contrast to open membership online discussion forums, where traffic is unrestricted, they claim that when data has been collected from a closed membership online discussion forum, it would be unethical for the researcher to use data generated from such a forum without the participants' consent. He asserted that it stayed a reliable method for gathering data for study despite respondents' inability to access and use computers as a hindrance for using CMCs.

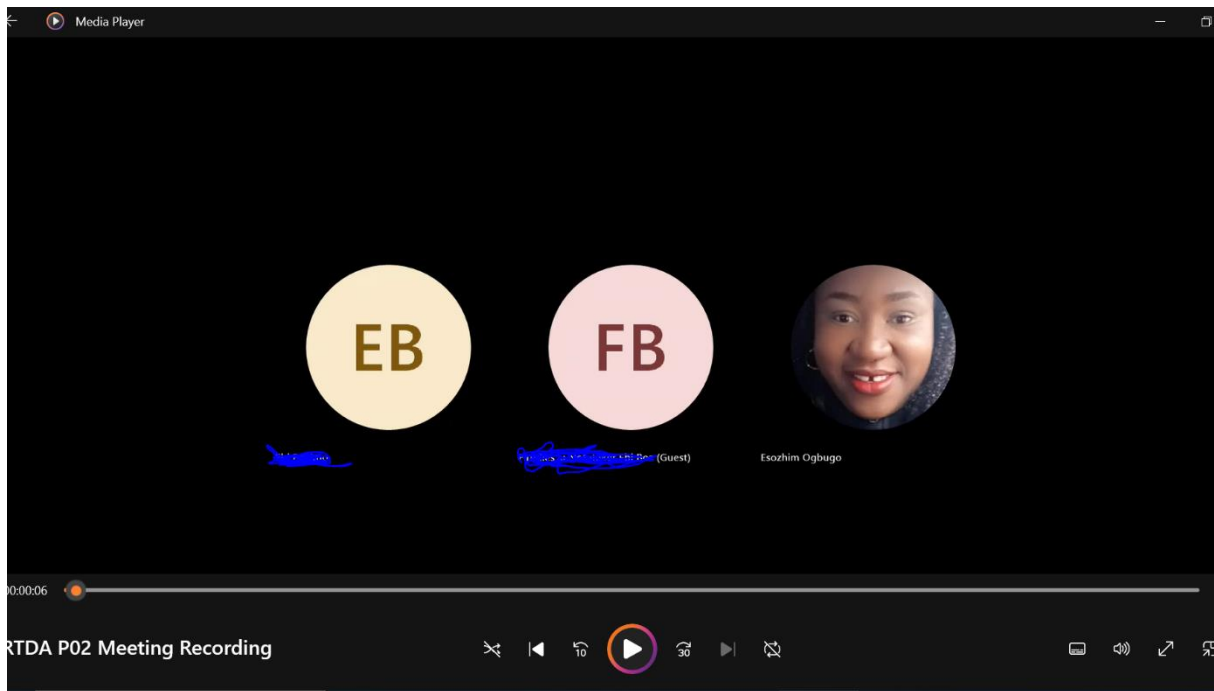


Figure 4.7: Screenshot of Teams (CMC) Online Discussion Forum

Source: Author, 2023

This researcher made it clear to the participants that the comments would be used for a research activity at the start of the session. Figure 4.7 shows an example of the CMC online forum that was conducted in this study. They used online discussion forums to access groups on Teams that were focused on systems thinking. They received a guarantee of complete confidentiality. Awuzie (2014) utilized seven months of different debates posted on the internet forum.

The decision to employ Computer-Mediated Communication (CMC) techniques, specifically online interviews and focus groups, for data collection in this research study is rooted in recognising the unique advantages these methods offer. Fundamentally, CMC techniques transcend geographical boundaries, enabling the researcher to access a diverse range of participants from various locations without the constraints of physical proximity. This aspect is particularly pertinent when investigating the implementation of infrastructure delivery systems (IDS) for affordable housing initiatives, which often span multiple regions or areas.

Moreover, the convenience and flexibility inherent in CMC methods cannot be overlooked. Online interviews and focus groups alleviate the logistical challenges

associated with traditional face-to-face data collection, such as the need for travel arrangements and venue coordination. Consequently, both the researcher and participants can engage in the data collection process at their convenience without sacrificing productivity or incurring substantial costs related to travel and venue rental.

Beyond logistical considerations, CMC techniques offer a unique opportunity to access key stakeholders with limited availability for in-person interactions. This is particularly relevant when studying the implementation of IDS for affordable housing, as it often involves engaging with policymakers, government officials, and industry experts whose schedules may be constrained. The researcher can more readily secure their participation and invaluable insights by leveraging online platforms.

Furthermore, online interactions' perceived anonymity and reduced power dynamics can foster a more open and comfortable environment for participants to share their perspectives and experiences. This aspect is crucial when exploring potentially sensitive or controversial topics related to implementing IDS for affordable housing, as it may encourage candid responses and mitigate potential biases.

Finally, CMC techniques streamline the data management and analysis processes. Online interviews and focus groups can be easily recorded, transcribed, and analysed using various software tools, enhancing the research process's efficiency and rigour. The next section will discuss the qualitative analysis of data implementation.

4.10.4 Focus Group

This study utilizes semi-structured focus groups, which involve group discussions moderated by the researcher, as a method for validating the research outcome, which is the Framework for Implementation of Infrastructure delivery systems Affordable Housing Policy (FIDSAHP). The focus groups will assess the Framework based on criteria such as its usefulness, practicality, measurability, scope, progressiveness, internal consistency, and external consistency. The format combines elements of a group discussion and an interview session, where participants will provide feedback on the criteria to validate the proposed FIDSAHP.

The study aimed to validate the research area and outcomes related to the Framework for Infrastructure Delivery Systems for Affordable Housing Policy Implementation

(FIDSAHP). To achieve this, an expert panel comprising six professionals with knowledge in Integrated Delivery Systems (IDS) operations was carefully selected. The researcher presented the FIDSAHP to the panel, explaining how it enhances the understanding of affordable housing policy implementation based on delivery systems. During the focus group session, the panel members were asked to propose potential solutions to the identified problem, which were then compared to the research outcome, the FIDSAHP. The panel also provided feedback on various aspects of the FIDSAHP to further refine and improve the framework.

The purpose of this exercise was to validate whether the research had adequately covered the intended area by seeking an external opinion from experts in the field. The panel's proposed solutions, feedback, and recommendations were used to evaluate and refine the FIDSAHP. The results and insights gathered from the focus group session are presented in Chapter 6 of the study. In summary, the study utilized an expert panel focus group to validate the research area, methods, and outcomes related to the FIDSAHP. This process aimed to ensure that the framework was comprehensive, practical, and aligned with the research objectives, incorporating the perspectives and expertise of professionals in the relevant domain.

4.11 Qualitative Analysis of data

Any research project's success depends on the data's analysis and interpretation. According to Yin (2014), data analysis involves examining, classifying, tabulating, or evaluating qualitative and quantitative evidence to reach empirical conclusions.

According to Creswell (2014), it refers to the precise methods required to interpret the evidence amassed throughout the data gathering. The study objectives and the features of the information collected dictate the selection of acceptable analytical procedures. Qualitative content analysis (QCA) was used for this study. Mayring (2000) describes QCA as an empirical, methodologically controlled investigation into texts within their communicative context, using content analytical criteria and step-by-step models with no premature categorisation. Then, it links the growth of qualitative content analysis to numerous topics, including predecessors, communication theoretical foundations, interdisciplinary expansion and divergence, and the qualitative critique phase.

The QCA evolved because of an obvious requirement to preserve the qualities of its quantitative equivalent as produced within communication studies and to transfer and further develop them into qualitative-interpretive phases of analysis. This approach was used since the data collected so far in this qualitative study was story material. Open interviews and written comments on questionnaires; introduction; One-on-one interviews in focus groups; protocols, diaries, and diaries; notes; Documents, reports, and news articles; stories; and case studies according to Taylor Powell and Renner (2003). This research is Based on using the case study as a defined area (IDS) that is semi-structured Structured and unstructured interviews as well as documentary review Proof. QCA was implemented with the help of NVivo software. This program is a computer-aided data analysis tool. Snapshots of the NVivo will be shown in Figure 4.8.

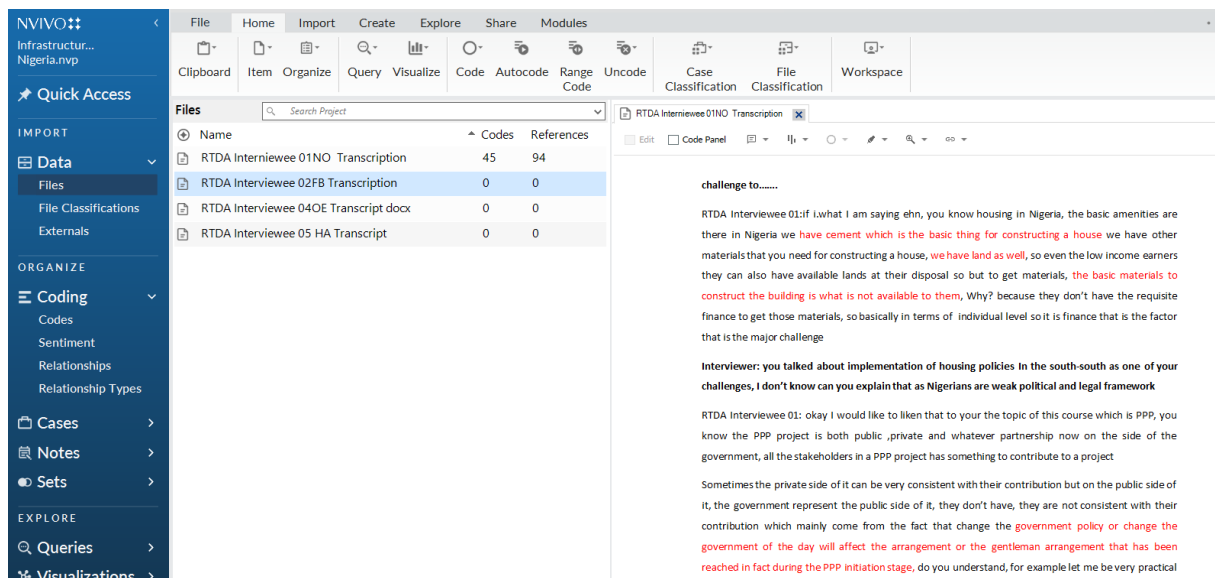


Figure 4.8: NVivo Snapshots

Source: Author 2024

After describing the study's methodological framework and the associated justification, emphasis will be directed to a narrative of the data collection and analysis steps, as illustrated in Figure 4.9 below.

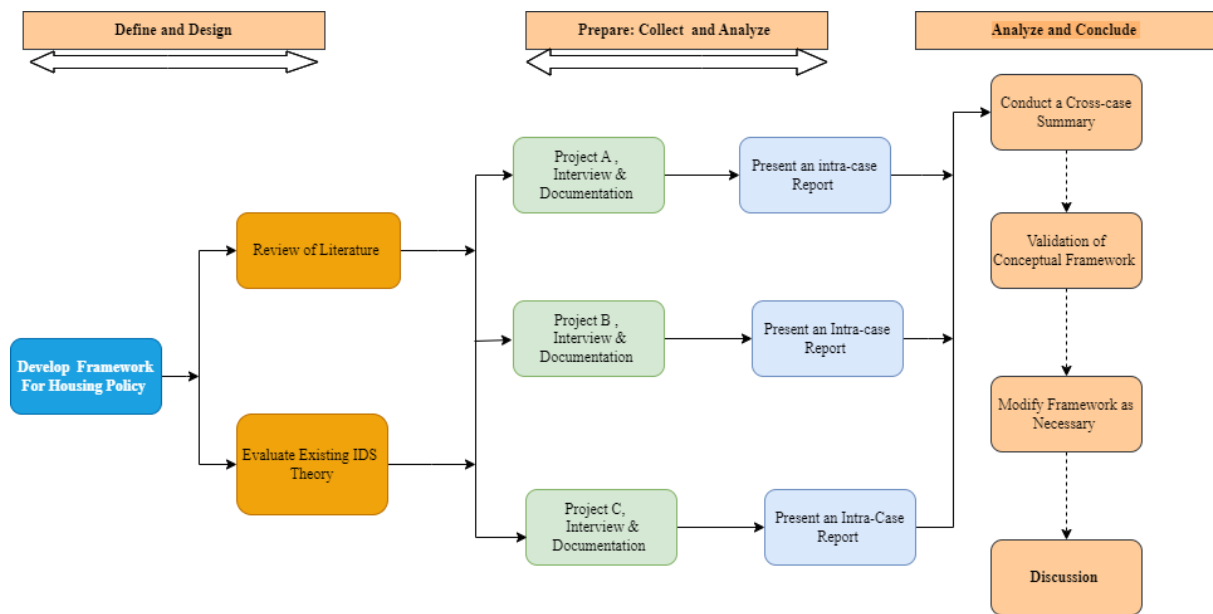


Figure 4.9: Research Process (Source: Author)

4.12 Time Horizon

Establishing a time horizon is crucial when conducting research, as emphasized by Saunders, Lewis, and Thornhill (2016). The time horizon can be either cross-sectional or longitudinal. Cross-sectional studies involve collecting data at a single point in time, while longitudinal studies involve continuous data collection at predetermined intervals over an extended period (Payne & Payne, 2004). Cross-sectional studies are well-suited for research designs that employ case study strategies, qualitative research methods, and semi-structured interview data collection techniques (Saunders, Lewis, & Thornhill, 2016). Given the time constraints associated with doctoral research, this study adopts a cross-sectional time horizon. As shown in Appendix 5, the data for this study were collected within a specific timeframe, representing a snapshot of the phenomenon at a particular moment, rather than a series of observations made over a prolonged period (Creswell, 2003).

4.13 Ethical Issues

Conducting research sometimes entails managing private information about individuals, groups, and institutions. At several points during the investigation, ethical considerations were considered. First, participant identities were kept secret during the design phase of the interview technique and questionnaires. The requisite ethical

review board permission was then obtained before data collecting got started. Additionally, informed permission was used to get participants' assent to participate in the study, and the interviews were recorded to guarantee anonymity. Additionally, recruitment only included consenting subjects. This was demonstrated by recording participants' and researchers' times and signatures before each session. Participants were given guarantees of secrecy and instructions on how to utilise anonymous codes, which facilitated open information exchange. As a result, to increase security, transcribed interviews were password-protected and materials containing raw field information were kept under lock and key.

4.13.1 Code of Ethics

This project was not funded by, or associated with, an outside agency that has its code of ethics. At the same time, anonymous codes were utilised for data analysis and reporting. According to the United Kingdom Research Integrity Office (UKRIO) standards principles, the researcher requested and received approval from the University of Salford Research Ethics Committee to conduct this research; (See *Appendix 8.1 for Ethics Approval*).

4.13.2 Credibility and Trustworthiness Issues

Addressing ethical problems is critical for the success of any study, and this one is no exception. Prior to keeping with this, the following Shenton (2004) principles for maintaining the credibility and trustworthiness of qualitative research were adopted.

4.13.3 Validity and Trustworthiness of Research Findings

The concept of research validity and its inherent credibility holds significant importance in the realm of research endeavours. Saunders et al. (2012) underscore that research validity entails the alignment of research outcomes with the intended objectives, reflecting the congruence between the research process and its desired outcomes. This encompasses the suitability of data collection methodologies and research design in effectively addressing the research inquiries. Notably, qualitative-oriented research

methodologies have been subjected to critical scrutiny by adherents of positivism, particularly concerning their validity (Shenton, 2004). However, Shenton (2004) rebuts the notion that qualitative research lacks assessable validity by asserting that, akin to quantitative research, qualitative research also adheres to a systematic approach that permits the evaluation of its validity. This method relies on the Guba framework, which outlines key criteria for assessing the trustworthiness of qualitative research findings. which is presented in Figure 4.10.

Figure 4.10: Criteria for Validity of Qualitative Research

<i>Quality criterion</i>	<i>Possible provision made by researcher</i>
Credibility	Adoption of appropriate, well recognised research methods Development of early familiarity with culture of participating organisations Random sampling of individuals serving as informants Triangulation via use of different methods, different types of informants and different sites Tactics to help ensure honesty in informants Iterative questioning in data collection dialogues Negative case analysis Debriefing sessions between researcher and superiors Peer scrutiny of project Use of "reflective commentary" Description of background, qualifications and experience of the researcher Member checks of data collected and interpretations/theories formed Thick description of phenomenon under scrutiny Examination of previous research to frame findings
Transferability	Provision of background data to establish context of study and detailed description of phenomenon in question to allow comparisons to be made
Dependability	Employment of "overlapping methods" In-depth methodological description to allow study to be repeated
Confirmability	Triangulation to reduce effect of investigator bias Admission of researcher's beliefs and assumptions Recognition of shortcomings in study's methods and their potential effects In-depth methodological description to allow integrity of research results to be scrutinised Use of diagrams to demonstrate "audit trail"

Source (Johnson et al., 2020)

a) Credibility (Internal Validity)

Shenton (2004) references Lincoln and Guba (1994) to emphasise the vital role of research credibility in establishing the reliability of the research. The researcher employed various research methodologies, including semi-structured and unstructured interviews, document analysis, observations, and online discussion forums, to conduct this study. After identifying the research problem, the researcher explored multiple approaches to address the research problem and assess their feasibility. Consequently, by delving into existing literature and documents, an in-depth understanding of policy documents, operational materials of implementing organizations, and project documents from the utilised case studies were acquired.

Before this, a comprehensive contextualization was provided, incorporating a thorough review and synthesis of prior research findings on local content development, policy implementation, and their interrelation with infrastructure delivery processes. This was intended to facilitate the comprehension of the investigative context by other researchers. Additionally, the researcher employed various forms of triangulation to enhance the robustness of the study. In the research study, Patton (2002) identifies and classifies four distinct forms of triangulation: methodological, data source, investigator, and site triangulation. The researcher effectively employed a diverse group of experts with expertise in systems thinking, policy formulation, oil and gas infrastructure procurement, and contracting. This deliberate choice enabled the researcher to gather data from a variety of perspectives while assessing the appropriateness and applicability of the VIDM (Viable Infrastructure Delivery Model) in evaluating the IDS (Infrastructure Delivery Systems). This same group of interviewees was also engaged during the practical implementation of the IDSAH (Infrastructure Delivery Systems Affordable Housing) in the evaluation process of the case studies. To ensure a comprehensive data collection approach, various methods of data collection were utilized, thereby facilitating methodological triangulation. Furthermore, the inclusion of a third case study in the research design phase was motivated by the necessity for theoretical replication, aligning with the concept of site triangulation.

b) Transferability (External Validity)

Yin (2009) outlines that external validity pertains to the challenge of determining whether the findings of a study can be applied beyond the specific case under investigation. In this study, the researcher aimed to extend the applicability of the findings to a theoretical framework rather than attempting to generalize to a broader population, a practice typically associated with quantitative studies. By employing both literal and theoretical replication in the selection of case studies, the researcher facilitated a degree of transferability of the findings, in line with the principles of qualitative research. Including a comprehensive and detailed portrayal of the research context, encompassing the local content policy and its implementation pathways as relevant to the project case study, mitigated concerns regarding the transferability of the findings. The research study's scope and boundaries were also clearly defined at the outset. Shenton (2004) observed that dissimilar outcomes between parallel studies

do not necessarily indicate the lack of credibility in either study but rather underscore the existence of multiple realities inherent in qualitative research.

c) Dependability (Reliability)

This document focuses on the aspect of research credibility, specifically addressing the dependability of research findings. This aligns with the construct validity principle put forth by Yin (2009). To ensure the dependability of the research, the researcher carefully planned the research design and executed it in line with the research questions and the central phenomenon being investigated. In order to achieve this, the researcher employed the abduction approach, which involves inferring possible explanations for the observed phenomena based on existing knowledge and theories. The abduction approach allows for a more nuanced understanding of the research topic, enabling the researcher to draw meaningful conclusions. By employing this method, the researcher enhances the credibility of the research findings and strengthens the overall validity of the study. Yin (2009) outlines three data collection principles that bolster construct validity and the research's reliability when employing the case study strategy: leveraging multiple sources of evidence, establishing a case study database, and maintaining a chain of evidence. Throughout the research, the researcher diligently maintained a case study database encompassing all data collected during the data collection phase. Furthermore, the researcher meticulously documents the step-by-step data collection and analysis process in subsequent chapters, offering a clear guide for any future researcher to replicate the study.

d) Confirmability

In this study, strict adherence to triangulation principles was followed to ensure that the research conclusions were in line with the viewpoints of the research participants rather than being affected by the researcher's preferences. In the context of qualitative research, triangulation is a useful technique for limiting potential investigator bias (Shenton, 2004). In the context of qualitative research, Patton (2002) outlined many techniques for achieving triangulation. Triangulation was used in this study in two different ways, namely data source triangulation and investigator triangulation. In the former, the researcher made sure that participants from various stakeholder organisations involved in a particular Infrastructure Delivery System (IDS) were subjected to a standard set of semi-structured interviews. This method made it easier

to get opinions on the same topic from different stakeholder groups. Regarding the latter, the researcher partially coded the acquired data using predetermined themes developed by another researcher (Ros, 2012), who had carried out a comparable evaluative and diagnosis-focused examination using the Viable Infrastructure Delivery Model (VIDM) approach.

4.14 Constraints and Limitations

Political Constraints – Due to personal and logical interaction made by the researcher with some of the interviewees, the source root of failed housing projects both in Nigeria and the south-south to be specific were not discussed in an honest and brave approach, Despite the need to know why there are so many abandon projects that have exceeded their completion stage. However, However, if more senior levels of Nigeria's political system are looked at, this could come up in future studies.

Socio-Economic Constraint – One of the primary challenges encountered was the reluctance of some participants to openly discuss the root causes of project failures, particularly when these issues were linked to systemic problems within the country's political and economic structures.

The south-south region of Nigeria, known for its oil and gas resources, has experienced a complex interplay of socio-economic factors that have hindered the successful implementation of affordable housing projects. Participants, especially those in senior positions, were hesitant to delve into the deeper issues underlying project failures, such as corruption, mismanagement of funds, and lack of political will. This reluctance stemmed from a fear of potential repercussions, both personal and professional, that could arise from speaking out against entrenched power structures.

Case Study – The following are some of the limitations that were encountered when doing the case studies: The Interviewing period for the PP Project:

The Initial Purpose of the research was to compare analysis and validate the VIDM model in the Nigerian contraction sector with an in-depth interview discussion; however, due to constraints such as professionals not being knowledgeable of the model due to its complexity and components. The research had to reevaluate the Interview question. Furthermore, the Case studies selected for the analysis has been halted due to changes in government and the cost of building materials.

4.15 Chapter Summary

Chapter Four presents a comprehensive and structured approach to the research methodology, encompassing various paradigms, techniques, and ethical considerations. The study adopts a pragmatic philosophical stance, employing an abductive methodology and a sequential mixed-method research plan. Multiple case studies, purposive snowball sampling, and qualitative content analysis are utilized. Ethical considerations and validity issues are addressed to ensure the trustworthiness of the findings, while acknowledging the study's constraints and limitations. *Table 4.5* presents a concise summary based on the methodological paradigm:

Table 4.5 Adopted Research Methodology

S/N	Methodology	Research Choice	Rationale
1	Research Philosophy	Ontology: Relativism	The research adopts relativism as it acknowledges multiple realities shaped by human experiences and interactions
		Epistemology: Constructivism/ Interpretivism	The epistemology is constructivist/interpretivist, emphasizing reality's constructed nature and data's subjective interpretation.
2	Research Approach	Abductive	This approach is chosen to study phenomena, develop theories, and address them, especially when direct observations or experiments are not feasible
3	Research Strategies and Techniques	Case Study, Archival Analysis and Grounded Theory	These strategies are employed for in-depth study of individual, organizational, and social phenomena. They help in understanding complex issues through qualitative data.
		Semi-Structured Interviews and Document Analysis	These techniques are utilized to collect primary data through interviews and analyse existing documents to understand the organizational context.
4	Data Collection and Analysis	Primary and Secondary Data	Data is collected directly from interviews and existing documents. The research benefits from both primary data (interviews and

			observations) and secondary data (literature review).
		Purposive Sampling and Snowballing	These sampling methods help in selecting participants who can provide rich, relevant, and diverse data.
		Qualitative Data Analysis (Thematic and Content Analysis)	These methods help in identifying themes and patterns from qualitative data to interpret the characteristics of the phenomenon being studied.
5	Research Time Horizon	Cross-Sectional	Given the time constraints associated with doctoral research
6	Research Design	Multiple-Case Embedded design	Each case in this study was selected for literal replication to show similar results or theoretical replication to highlight contrasting impacts of displacement across three states
7	Validation	Mini Focus Group (expert panel)	This confirms whether the study's outcomes adequately cover the research area through high level expert opinion.
8	Ethical Considerations	Credibility (Internal Validity)	credibility was ensured by using validated methods, conducting thorough data analysis, and accurately reporting findings to avoid misinterpretation.
		Transferability (External Validity)	These allows the results of the study to be generalized or applied to other contexts or region
		Dependability (Reliability)	These allows consistency of then findings over time and under similar conditions. Ethically, the researcher ensured a transparent and repeatable method, allowing for replication of the study or verify the findings.
		Confirmability	The finding is confirmable as the ensures that the outcomes are shaped by the respondents and the research context rather than the researcher's biases or interests.

5 CHAPTER FIVE: INTRA-CASE AND CROSS-CASE ANALYSIS

5.1 Chapter Overview

The significance of multi-case studies lies in their capacity to illuminate minor details within each case and combine findings from several examples to create a more comprehensive understanding. But it is important to remember that every case is still a unique piece of information, not just part of the bigger picture.

This chapter presents the chosen case studies for two very important reasons. It serves as an accurate and comprehensive representation of the main components of every project from the start. Thanks to this clear presentation, the reader may quickly understand the important information required to comprehend the larger study. Second, it distinguishes the analysis of the interview data from the real project descriptions. Clarity and structure are the two main advantages of this unusual split. The chapter makes a clear distinction between interpretive analysis and credible descriptions, which improves the chapter's organisation and makes the information flow more naturally. The purposeful arrangement prepares the groundwork for the upcoming cross-case study in Part II, which will combine and critically evaluate the results of the many initiatives.

The three case studies were provided in Chapter Four (Section 4.8), on the research process, setting the stage for further study within the framework of the research question and propositions stated in Chapter One. Every case study started with an in-depth review of the project's history and scope, which was followed by an open debate on the selection standards that supported the project's inclusion. This preliminary investigation made it easier to critically analyse the case study questions, allowing for their implementation and assessment within the confines of each unique instance. This thorough exercise established the foundations for the upcoming cross-case analysis, which is slated for Part II of this chapter, as well as the internal validity of each case study analysis.

This chapter makes it easier to draw broader analytical generalizations that could help develop the central research theory and improve the initial hypotheses put forth during the problem identification phase by providing a clear path for intra-case review and replication analysis.

5.1.1 Scope of Project Documentation

The Scope of Project Documentation involved a comprehensive range of project documents, including *Appendix 5.1: Program of Works Documentation* contractual documents, and Construction Progress Report, sites minutes of meeting, Technical Drawing Specification, Project Cost Analysis and Project correspondence. See *APPENDICES* 9.11 systematic coding system was implemented using primary classifications (PM, APM, DG, CQS, PC, PR, MD) combined with case study identifiers (IDS1, IDS2, IDS3) and specific Respondent type codes (R01, R02, R03, R04.....R024). The archiving process involved both digital storage with secure cloud backup and physical storage with controlled access.

The analysis methodology integrated these documents through systematic review, involving cross-case analysis pattern matching between document types, timeline reconstruction of project events see *Figure 5.1: NVivo Snapshots* content analysis using the established thematic coding system, see and triangulation with interview data. This structured approach enabled effective pattern identification, chronological mapping of project events, and development of comprehensive case narratives, which were ultimately validated through stakeholder review.

The research employed a comprehensive documentation analysis process within the Infrastructure Delivery System (IDS) framework. Data collection utilized semi-structured and unstructured interviews complemented by extensive documentary review. The analytical process was systematically executed using Qualitative Content Analysis (QCA) through NVivo software, which facilitated rigorous coding and cross-case analysis. Each document was assigned unique identifiers, enabling systematic cross-referencing across all three case studies. This integrated approach allowed for robust pattern matching, thematic analysis, and triangulation between interview data and documentary evidence. The coding structure and analytical framework are evidenced in *Appendix 5.2* demonstrating the methodological rigor applied throughout the analysis process. Section 4.11 provides detailed explanation of how this systematic approach contributed to the identification of key themes and patterns across the failed projects.

5.2 Intra-case Study Analysis Strategy

While analysing individual case studies is an important basis for the upcoming cross-case analysis, developing a rigorous and well-organized methodology for assessing research ideas is also critical. To that aim, the strategy and approach used to present and analyse simplicity and easy understanding of the cases in this chapter are firmly based on the three principal data sources described in Chapter Four. These sources includes Interviews, Documents, Mini Focus Group

5.3 Review of the study's propositions

The success of each study is dependent on the researcher's precise description of its 'how' and 'why' questions, which lay the groundwork for effective exploration. Perifanis and Kitsios (2023) advocated 'how' and 'why' questions, indicating that the generated propositions successfully drive a study's goals.

Utilising a systemic approach, this study sought to understand the dynamics of organisations partnering within policy implementation on affordable housing infrastructure projects. It then investigated how these relationships affected the success of integrated policy initiatives throughout the project's lifecycle.

The propositions are shown below:

- I. Policies are frequently monitored for success, and legislation may be modified to better conform to policy goals or resolve policy implementation challenges.
- II. Participatory techniques can improve affordability and delivery efficiency by enhancing collaboration and communication among key stakeholders.
- III. By collaborating, stakeholders may amplify their aggregate effect on housing legislation and policies, ensuring these measures favour affordable housing advancement.
- IV. Strengthening the monitoring and control system through independent oversight mechanisms helps reduce failure and increase transparency in affordable housing initiatives.
- V. Challenges can be extensive and intricate, encompassing economic, social, and political aspects. To address problems, strategies for overcoming barriers must be identified.

In view from the proposition as highlighted, the intra-case will allow for testing during the cross-case analysis.

5.4 Profile of interviews from policy development and operation agencies

To understand the complex relationships shaping Affordable Housing projects in Nigeria's south-south region, the researcher sought insights from key stakeholders beyond the immediate case studies. Recognising the crucial roles played by various policymaking and implementation agencies, interviews were conducted with high-ranking personnel (management staff) from relevant ministries, organisations, and the legislative arm of the government. These interviews categorised as "Statutory and Regulatory Authorities interviews", shed light on each organisation's involvement in the specific case studies they influenced. Highlighting the position of involved institutions within the Affordable Housing Delivery System. For confidentiality purposes, interviewee profiles and their corresponding alphabetical codes are listed in Table 5.1.

5.5 Case One-Project A (AHIDS1)

5.5.1 Project Description of Project A

Project A is Nigeria's Flagship urban renewal project. the premium mixed-use township, with an estimated budget of N82b. has strategic city-centre proximity to the robust and Vibrant Trans Amadi business-commercial corridor. This Public-Private partnership between the Rivers State Government and First Bank Nigeria, Plc was conceived with an ambitious program that includes 1181 residential units in terrace apartments, detached homes and condominium towers grouped around central green courts and parks. The Rainbow brand blends housing, a health centre, a primary school, a clubhouse, a security post, and a shopping arcade. The iconic tower is the township's commercial hub with 10 floors of office space, movie theatres, conference facilities, shops, and restaurants. The command-and-control Eco-centre services the township.

A nerve node for power, water, and sewer plants, as well as a menu of infrastructure and utility services, radiate from there. Security is enhanced with a fire station and remote surveillance monitor. The recreational and outdoor facilities are creatively embedded in a master plan landscaped in an appealing greenery that exudes the environmental ambience of a serene and leisurely lifestyle. This brand convergence of

new urbanism and economic spice transcends mundane pedestrian communities' marrow focus and urban lifestyle limitations.



Figure 5.2: Image of Project A – Urban Renewal Project Source: Author, 2024

5.5.2 Economic Forecasts and Nation-Building

Project A aligns with two prominent global studies and predictions. One, "The Mystery of Capital," asserts that divergent success in capitalist economies stems from their varying capacity to generate wealth through real estate ventures. The second, a forecast by Global Construction Perspectives and Oxford Economics, projects Nigeria to be a construction hub in Africa, experiencing remarkable growth and leading the global construction sector until 2020, aligning with Nigeria's Vision 2020. Given the integral role of construction and infrastructure in economic development, the extensive scope of the project resonates with both studies. It is poised to be a worldwide benchmark for Africa's real estate, tourism, housing, and economic progress. The significance of construction is highlighted by its contribution of 259% to the US GDP and 6.8% to Nigeria's GDP in 2012, driven by the building and construction sector, symbolising Nigeria's determination, and potential for advancement.

Project A is a concrete exemplification of the well-established notion that the construction sector boasts the most extensive amalgamation of trades and crafts

among all industries, yielding a significant multiplier effect and a propensity for substantial employment opportunities. Historical instances, such as the recovery from the Great Depression in the early 1940s, the post-World War II reconstruction of Europe via the Marshall Plan, and next economic rejuvenation programs like the 1956 US Federal Highway Act and recent Economic Recovery and Reinvestment initiatives, have underscored the pivotal role of construction as a stimulus for both renewal and nation-building. The Project A site, currently at approximately 55% completion with concurrent enhancements to feeder and arterial roads, is a bustling hub of construction activities and a vibrant marketplace for extensive labour engagement. The noticeable increase in property values and heightened interest in local properties are attributed to ongoing construction progress. The considerable participation of the public, reflected in off-plan sales, investment equity, and concession interests, demonstrates notable accomplishments. Moreover, the presence of 25 towering structures is significantly altering Port-Harcourt's skyline and urban landscape.

The execution of this multi-faceted project in a transitional economy is not without challenges the partial removal of petroleum subsidies, a turbulent interest rate regime, foreign exchange fluctuations, minimum wage increases, and imported materials are unpredictable external variables with a direct impact on pace and production costs. But a Board of celebrated and accomplished professionals has evolved exemplary corporate governance, and a marquee consultant corps and independent advisory provide a systemic culture of Internal controls, external checks and balances that aid management in meeting global procurement standards withstanding public scrutiny and curious media searchlight.

Project A has a long-term objective is steadily progressing towards becoming a regional exemplar and favoured destination. This progression leverages growth engines supported by a substantial pool of human capital and intellectual assets, fostering innovation and advancement. The primary objectives of economic development propel this initiative, ensuring its sustainability and the augmentation of value at the confluence of tourism, housing, commerce, entertainment, and recreation. The sizeable contribution of property-related revenue and employment taxes will significantly enhance locally generated income, which can then be harnessed and reinvested into essential pro-poor social infrastructure initiatives like educational institutions, medical facilities, and vocational centres – all of which hold paramount

importance in development policies. Cultivating an investment and business hub will steer a forward-looking urban revitalisation, setting up centres of growth that synergise with Port-Harcourt's natural resources and cultural wealth, thereby contributing to the broader endeavours of nation-building.

5.5.3 Details of interviews and interviewees' profiles – Project A

This Study decided to present the data relating to the different projects in which the interviewees participated separately, which would help the case analysis. According to ethical considerations, interview participants were assigned labels R01, R02, and so on until R24. These anonymized labels allow the use of quotes without revealing the identities of the individuals. Furthermore, the NATO phonetic alphabet was used as a code, and the nature of participation means the sector to which they belong, making them eligible to be interviewed for the project because they must be directly involved in the existing project. The Table 5.1 shows the participants involved in Project A.

*Table 5.1: Project A – Respondent's Profile*Source: Author (2024)

S/No	Respondent	Code	Nature of Involvement	Job Position	Years of Experience
1	R01	Alpha	Main Contractor	Project Manager (PM)	32
2	R02	Bravo	Developer	Assistant Project Manager (APM)	33
3	R03	Charlie	Government	Project Consultant (PC)	25
4	R04	Delta	Main Contractor	Contractor Quantity Surveyor (CQS)	23
5	R19	Echo	Government	Director General Ministry for Works (DG)	30
6	R20	Foxtrot	Mortgage	Project Representative (PR)	15
7	R21	Golf	Sub-Contractor	Managing Director (MD)	25
8	R22	Hotel	Sub-Contractor	Senior Structural Engineer (SSE)	15
9	R23	India	Government	Arm of Legislature (AL)	20
10	R24	Juliet	Main Contractor	Project Engineer (PE)	9

5.5.4 Intra-case Analysis – Project A

This section presents a comprehensive analysis of the data collected to assess the viability of Infrastructure Delivery Systems for Project A (IDS1). The data was obtained from interviews with Ten (10) key stakeholders (Respondents), as listed in Table 5.1, and insights from interviewees representing regulatory agencies. The information gathered from these sources provided valuable inputs for evaluating the proposed propositions. The analysis aims to critically examine the collected data to determine the feasibility and potential implementation of IDS.

5.5.4.1 Validation of FIDAH components – Project A

To further validate the emergent FAHPI Framework, the study presented the Framework to the interviewees within Project A. The interviewees were asked to provide their insights and opinions on the following aspects:

- 1) The elements of the FAHPI Framework
- 2) The relationships between the elements
- 3) The identified challenges associated with the Framework.

All the interviewees unanimously agreed with the FAHPI elements and the relationships between these elements. They also concurred with the identified challenges related to stakeholder engagement, which is crucial for effective interorganizational drivers and successful implementation of the Framework.

Moreover, the interviewees were able to identify the specific subsystems within the FAHPI Framework where their respective organizations were situated. This identification of subsystems further reinforces the applicability and relevance of the FAHPI Framework to the organizations involved in Project A.

The validation process, which involved seeking feedback and confirmation from the interviewees directly involved in Project A, strengthens the credibility and robustness of the FAHPI Framework. The interviewees' agreement with the Framework's elements, relationships, and challenges, as well as their ability to place their organizations within the Framework's subsystems, provides substantial support for the validity and practical utility of the FAHPI Framework in the context of Project A.

5.5.4.2 Policy and Legislation of IDS1 Implementation

This theme represented the different policies and legislation that contributed to establishing the affordable housing schemes under consideration in the research study. The main category under this theme was policies contributing to establishing affordable housing schemes.

a) Policies contributing to the establishment of affordable housing schemes.

The implementation of public-private partnership (PPP) policies significantly supports the development of affordable housing schemes, as evidenced by their successful application in Project A, confirmed by ten participants. This collaborative strategy between government and private entities highlights the effectiveness of joint efforts in making housing more accessible and economically viable for lower-income groups.

“Project A is a PPP project among the Rivers State government, Project A Development Authority and First Bank Nigeria PLC.” – All

5.5.4.3 Stakeholders Engagement & Collaboration

This theme explores stakeholder engagement and collaboration crucial for implementing affordable housing projects, addressing who the stakeholders are and their roles in such schemes. This directly aligns with the study's second objective to identify factors influencing the adoption of IDS within Nigerian Affordable Housing Projects.

In Project A, the participants identified three (3) major stakeholders in affordable housing projects, as illustrated in Figure 5.3.



Figure 5.3: Stakeholders in affordable housing projects.

Source: Author, 2024

i. Government

participants identified various government agencies as crucial stakeholders in the process. R20, R21, and R22 specifically mentioned The Bureau of Public Procurement (BoPP) and the Ministry of Works and Housing Development as key players. The inclusion of these agencies suggests a recognition of the need for a multi-stakeholder approach in addressing affordable housing challenges.

Furthermore, the analysis reveals that participants identified various government agencies as crucial stakeholders in the process. R20, R21, and R22 specifically mentioned The Bureau of Public Procurement (BoPP) and the Ministry of Works and Housing Development as key players. The inclusion of these agencies suggests a recognition of the need for a multi-stakeholder approach in addressing affordable housing challenges.

The emphasis placed on the Ministry of Works and Housing Development's role is particularly noteworthy. As the ministry responsible for employing individuals to carry out work as an end user, its involvement is deemed critical by the participants. This finding indicates that the ministry's direct engagement in the implementation process

is perceived as a necessary component for the successful execution of affordable housing initiatives.

Respondent 22 suggest that “a collaborative effort involving multiple government bodies is crucial for overcoming the challenges associated with affordable housing projects.”

ii. End-Users

Moreover, R02, R03, and R022 recognised end-users’ significance as key stakeholders in Project A, given their role as the project's ultimate consumers. Consequently, their interests are of paramount importance in this case. of particular interest was the view of R02 who said:

“It's absurd to think that affordable housing projects can succeed without involving the people living in these homes. The end users, the individuals and families who will be buying or renting these properties, must be considered as crucial stakeholders in the development process. It's not enough to simply build houses and expect people to line up and purchase them, regardless of their preferences or needs.”

In support of the above affirmation R03 was of the opinion that:

To avoid such a scenario, it is imperative that the opinions and requirements of the end users are actively sought out and incorporated into the planning and design stages of affordable housing projects. By engaging with future residents and understanding their needs, developers can create homes that not only meet the basic criteria of affordability but also cater to the community's specific preferences.

iii. Financial institutions

The Financial Institution was identified as a crucial stakeholder across multiple categories, and its significance cannot be overstated. The institution's role is particularly critical because project financing is closely linked to the challenges faced

by the project. In one instance, the Financial Institution's refusal to release funds was attributed to issues with team collaboration, highlighting the direct impact of stakeholder dynamics on the project's financial stability.

The financial institution, too, but I don't know which of them now, but maybe. A commercial bank or mortgage bank, but you must have financed. Affordable houses, so financial institutions must be stakeholders in the project in which they invest money. R04, R19. & R20”

5.5.4.4 Challenges and Barriers to Affordable Housing

This theme encompassed various challenges and obstacles encountered while implementing affordable housing projects. The interviewees emphasised several key issues under this theme. They identified barriers as the fundamental reason behind the failure of affordable housing projects and discussed the specific challenges that hinder the successful execution of these initiatives.

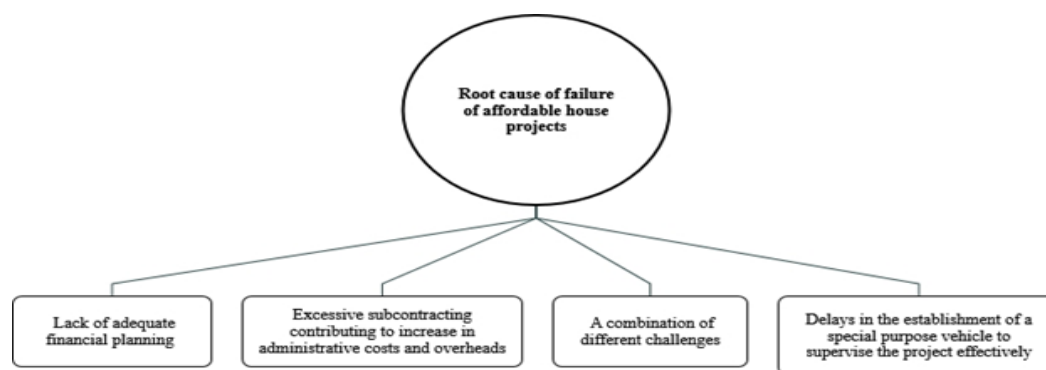


Figure 5.4: Causes of Failure in Affordable Housing Projects

Source: Author, 2024

Financial constraints were identified as the primary obstacle in implementing affordable housing initiatives, especially Project A. Respondents R03, R22, R04, and R19 unanimously acknowledged that insufficient financial planning was the main challenge hindering effective execution.

i. Lack of Adequate Financial Planning

Finance is the predominant issue. The absence of sufficient financial planning is the main challenge, as noted by All the respondents involved in Project A.

“Oh Finance. The major reason is finance. Lack of adequate financial planning” – R03

ii. Excessive reliance on subcontracting

R02, R04, and R023 observed that the excessive reliance on subcontracting was a significant root cause of Project A's failure, as it worsened the financial difficulties encountered by the affordable housing initiative.

"The traditional approach of awarding a standard EPC contract for large projects, like a 15-story building, involves detailed contracts with a complete bill of quantities that contractor's price upfront. While initial pricing for major elements such as concrete structure is fixed, finer details like wardrobes and taps are selected later, which allows some flexibility in pricing and selection."R04

Moreover Respondent 023 has a different observation to the context:

"Managing multiple contractors for different parts of the same project—such as one for the structural frame, another for bathroom fittings, and others for doors and wardrobes—proves to be inefficient. Each contractor brings separate samples for approval, which might not always align with budget or quality expectations. This method, though it encourages detailed discussions, often detracts from the project's overall efficiency and best interests. My observation is that this divided approach is not the most effective way to manage construction projects."R023

iii. A combination of different Challenges

Moreover, R02 revealed a hierarchical list of the primary factors contributing to the failure of Project A, as named by the interviewees. On the top of the list is phasing when it comes to the delivery of the project.in the interviewees statement:

“The phasing was the number one challenge in my view because the all started the projects at the same time, from low rise to high rise to access road in the estate, they should have done it in phase, when problem encountered the can then be corrected in the next phase”R02

2) Second, I just described this method of procurement where you literally break what should be an EPC contract. Tradesmen contract. It's not wieldy, then. We didn't have many; the pre-contract screening process had relatively well-assured contractor quality. So, they would not rank. Our contractors were up to date. They were technically competent, able, and willing. So, our contractor's quality was not an issue. Truly umm, we had excellent consultants, so that was not a problem either. I would say between the phasing at a global level and then the method of the chosen method of procurement, which is the contracting method. Those are the two highest things I would rank as the biggest challenge in the project. 4) Maybe an environmental factor? 5) Changes in Price, Finance ,6) Suppliers not paid, 7) Political Challenges 8) Disagreement between Shareholders, 9) Over Ambition ,10) Greed R02

iv. Delays in the Establishment of Special Purpose Vehicle

R04 and R023 highlighted that the delays in establishing a special-purpose vehicle (SPV) to effectively manage and supervise the project were among the key factors causing the challenges faced during the implementation of Project A.

“The special-purpose vehicle is the SPV. So, the SPV was not set up early when project A kicked off, so at the time the SPV was now set up, a lot of projects had been awarded, a lot of money had been spent, and value was not coming out of the money that was spent, so the SPV now came up and started managing in a faulty stand” –

R04

5.5.4.5 Implementation Challenges of Affordable Housing – Project A.

The interviewees expressed different views on the challenges affecting the overall completion of Project A. Affordable housing. The execution of affordable housing projects, can be summarized as follows:

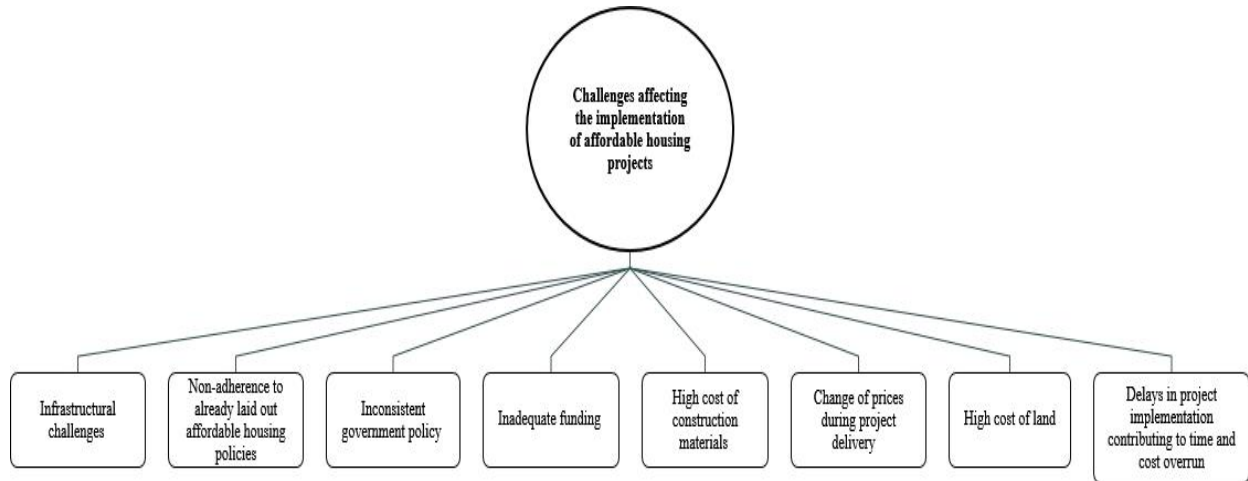


Figure 5.5: Implementation Challenges of Affordable Housing Projects

Source: Author, 2024

The interviewees consistently pointed out that infrastructural challenges posed a significant hurdle in successfully implementing affordable housing policies.

i. Infrastructural Challenges

R03, R19 and R22 confirmed that infrastructural challenges, such as the lack of proper roads, reliable water supply, and stable electricity, in the targeted areas for affordable housing development, emerged as a major concern. Moreover, R01, also stated the difficulties in upgrading existing infrastructure to meet the increased demand generated by the new housing projects further compounded the challenges faced by the stakeholders involved in the implementation process.

“Accessibility assuming the land is available, is it accessible most times the lands that maybe could be affordable they remote areas?

So, how do you assess those remote areas? that is the truth, infrastructure and availability of bridges to assess this location? So, if the lands that are cheap are not accessible, then that becomes a problem for investors.” – R03.

For instance, challenges of infrastructure, basic infrastructure like power, are a very big challenge in housing development because no matter how you want to develop an estate, there must be access to power, and where there is none existing, it will be your burden to attract power from the nearest point of view. And in some cases, it may be a very long distance, and that is your cost, and that does not give you the overriding right to own that infrastructure, it becomes government infrastructure, so all those that are now coming in between when you have taken care of the power source where your property is, can benefit from that facility without even paying for it, but the burden has been transferred to you because you need to develop your property as fast as possible to look attractive. So not having accessibility to power infrastructure is also a challenge that cut across all. Also it is only in Nigeria that you will see borehole being drilled by individuals. In those advanced countries, you don't. So it is also another peculiar challenge that is being suffered by all. You can also look at accessibility if there is no road leading to the area where you are residing your housing project it also having its own toll as challenges.” – R19.

Four respondents emphasized that inconsistent government policy was a notable challenge they encountered while implementing affordable housing policies.

ii. Inconsistency of government policy

Similarly, R021& R019 stated Inconsistency of government policy are what are taking us back, inconsistency you understand, inconsistency of government policy inconsistency is where I'm coming from, the government that is coming on board will not want to continue with the policy of the previous government it's a big challenge, not only in the housing sector in other sectors as well.

Furthermore, R02 emphasized generally their decent relationship with the government up to a point. There was a political challenge because we started the project with one government, and when another government entered, they discontinued the project. So, there was a political aspect of it as well. Then, in that second government, there were disagreements between stakeholders about the title of the land, and that seemed

to have led to a logjam that literally slowed down the project to breaking point. So, you had.

As I said before, financing at the point money was made available a bit more might have been needed to take it to another level. Still, the financiers became less I'm less interested as the politics, as the political tides changed, and we experienced some effect of new stakeholders from various offices, that was one thing. I would say, but those seem to have been some of the major challenges with the project.

Furthermore R20 & R01 pointed Lack of long-term commitment and support from successive governments, affecting the sustainability and continuity of affordable housing initiatives in agreement with R02.

iii. Non-adherence to already laid out affordable housing policies.

Now, if we are going into policy, then that is an instrument of government. But if we are going into housing development achievement, we can now talk. practically because, as far as I am concerned, Nigeria has good policies, but they are just on paper; even the government themselves don't follow their own. Policy when they have their personal interest in it, so I don't rely on anything they call policy regarding housing. R04

iv. high cost of construction materials

Further discussions with some respondents revealed that the high cost of construction materials was another significant challenge they faced when implementing affordable housing policies.

Construction materials, assuming somebody or a company wants to partner to build affordable housing, what is what are the cost of materials? Because these are the variables that you, the investor, will look at, to peg the cost of maybe selling those properties, how much is it investing into the uh, how much is it putting into the investment? So, construction materials is also a challenge, R23 ”

v. High cost of land

I think one of the factors will be the land, umm, the cost of land is Expensive. To secure lands, because if you're talking about housing development, the first thing you look at is the availability of land. If the land is available? To what quantity is That land available, R23.”

Admittedly, all the interviewees were in absolute agreement that Inadequate funding is a major challenge that affected Project A they believe the funding was not disbursed at when due causing project delay.

Similar R02, R019, R021 & R024 strongly agreed that the challenges of affordable housing in the south-south region are basically finance.

R22, added that Insufficient allocation of financial resources by the government and private sector investors for affordable housing projects.

R02 agreed with R21 in this regard according to R02 on the Difficulties in accessing financing options, such as loans and approvals, for the development and construction of affordable housing units.

R02 specifically highlighted the challenges posed by changes in prices during project delivery.

“In some instances, there were changes in pricing over time. There were people not paying for what they expected to pick. What they expected to pay when the dates reached” – R02

“I think changes in the costs of labor, materials, and equipment during the project implementation phase had a significant impact on the overall budget and financial viability of the affordable housing projects” – R19

Additionally, R03 mentioned that the inability to accurately predict and account for inflation and market volatility in the project planning and budgeting stages further compounded the difficulties in managing the financial aspects of the projects.

vi. Delays in project implementation, contributing to time and cost overrun.

Project A experiences challenges and delays in project implementation, contributing to time and cost overrun.

I cannot categorically tell you that it was fair because it was fair even before the government of the day left. The project was supposed to have been completed, but it wasn't because there was a delay, and you know, when there is a delay, what you have mostly cost overrun and time overrun, which is the excess cost needed to complete it and excess time needed to complete it that was the order of the day and that is why the state government came on board, and that was the order of the day, and that is why the state government came on board and met a project that is not completed because completed before the new government came that was the order of the day, and that is why the state government came on board and met a project that is not completed – R01

5.5.4.6 Monitoring and Control for Affordable Housing in Project A

This theme included all issues related to monitoring and control in implementing affordable housing projects. The different categories under this theme included the monitoring and control (M&C) team in charge of implementing affordable housing projects, criteria for selecting the M&C team, members of the M&C team, challenges encountered by the M&C team in affordable housing projects, and types of conflicts among members of the M&C team.

i. The monitoring and control (M&C) team is in charge of implementing affordable housing projects.

This section analyzes the perspectives of interviewees, particularly R07, R09, and R10, who directly participated in Housing Project A. They discuss the monitoring and control teams involved in overseeing the implementation of affordable housing projects and their specific responsibilities.

R07, stated “The Monitoring and Control (M&C) team involved in Project A consisted of external consultants and representatives from the government, specifically the ministry. The external consultants were primarily responsible for overseeing the project's progress. In addition, a ministry team visited the project site monthly to review progress reports and assess the project's status. A group of professionals was also involved in the monitoring and control process.”

In agreement with R07, Respondent R09 Confirms,” the Civil Engineer and Quantity Surveyors from the Ministry of Works all visit monthly to send the report back to the commission for works, and the commissioner reports to the governor.”

ii. Criteria for selection of the M&C team

This category represented the interviewees' views on the criteria utilized to select the monitoring and control team.

“ I joined the project after the team was selected, so I don’t know how the M&C team came about.” – R01

“The team was selected professionally and experienced, while most emerged because of the political goodwill of some politicians interested in the Project.” – R03

iii. Members of M&C team

This category represented the professionals the interviewees identified as members of the monitoring and control team.

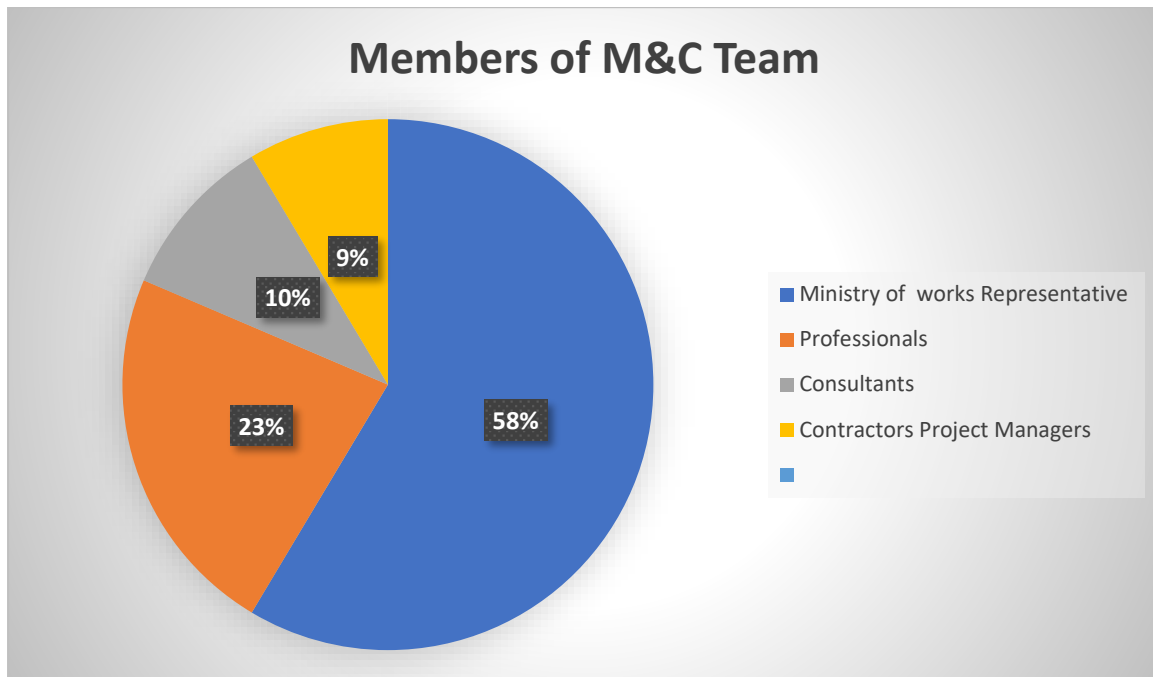


Figure 5.6: Members of the Monitoring and Control Team

Source: Author, 2024

5.5.4.7 Finance and Resources for Project A

This theme represented the different financial and general resources identified by the respondents as important to implementing affordable housing projects. The categories under this theme included Views on the availability and affordability of public-private partnership housing projects in the south-south region and the challenges encountered in implementing affordable housing policies.

Views on the availability and affordability of public-private partnership housing projects in the south-south region. The respondents provided different views on the availability and affordability of public-private partnership housing projects in the south-south region. Two of the interviewees indicated that there were numerous public-private partnership housing projects in the south-south region stating:

“... ordinarily, PPP projects in the south-south region are much; in other words, they are available and affordable within the south-south region because you know the south-south region comprises six (6) states in Nigeria, which are about seventeen per cent of the total number of states in this country and so if you go through across all

the states there are a lot of PPP project that is ongoing with regards to housing development, you know housing issue is a major issue in this country Nigeria so to mitigate that fact the various state government cannot do it alone, individuals cannot do it alone so they imbibe this culture of PPP initiatives, to ensure that they make housing and let it be available for their citizens, so In short if they are available,...” – R02

“Second categories are those that will partner with the government, the government provides land and they bring in other resources to actualize the project and they execute them.” – R19

Two of the interviewees also indicated that public private partnership housing projects were unaffordable for the average population.

“Availability There are two things you talked about: availability and affordability. Availability is lower than affordability. People are unable to afford the ones that are available. It was unable to afford it because of the high cost of affordable housing property development. The ones that are available are expensive, so if you look at the lower class or the middle class, it's difficult for them to afford it. So, it is probably for the high class.” – R04

“The biggest challenge in that market is the very word affordable because. To the best of my knowledge, while some people can afford anything they want, my sense of affordable housing would reach a much larger demographic. But many of the projects in the South-South at least don't appear to be in the affordable category. They might rather seem to be quite expensive for your average. You know, for your average would-be owner. So, I don't know that they are very affordable.” – R23

5.5.4.8 Success & Drivers for IDS Implementation Affordable Housing Policy

This theme included factors considered successes or drivers of affordable housing projects. The main category contributing to this theme was the assessment of government performance in implementing affordable housing policies in Rivers State.

i. Assessment of government performance in the implementation of affordable housing policies in the Rivers State

The interviewees presented their subjective assessment of government performance in implementing affordable housing policies in the South-South. Only one participant stated that the government's performance in implementing affordable housing policies in the South was good because the government supported other stakeholders by providing land and the necessary approvals for the project.

“Was good. Yeah. Very specifically on the Project A project government. The government provided the land before the project started. The government helped eliminate the community of you know. Umm, it was a troubled area. The government help create access to the place. The government did what it could in terms of giving approvals. Were wavers assorted things cause government looked forward to a situation where tenement rates and all that would be a permanent source of revenue, so the government was quite Rivers State at the government at the time was quite collaborative with the stakeholders.” R01

So, the tides of politics may have had a challenge later, but in the early stage, the government was an interested stakeholder. They had people on the board of Project A and management. It was quite a collaborative project. I believe initially, they truly wanted to see it come alive.” - R02

Most of the participants viewed the government's performance in implementing affordable housing policies in the South as poor. R01 illustrates how the government in the state can not be trusted

R01

Respondent R01 expresses significant concern over government performance in Africa, particularly in relation to housing and infrastructure development. The respondent emphasizes that despite the continent's abundant resources, the observable outcomes, especially in the South-South region of Nigeria, reflect a stark underachievement. This is attributed to governmental inconsistencies and a general failure to provide basic amenities, resulting in visible poverty among the population.

The situation described by R01 suggests a deep-seated systemic issue that goes beyond regional disparities to encompass a more generalized governmental disinterest in vital sectors. Such scenarios need a re-evaluation of policies and increased accountability, ensuring that governments use their abundant resources to significantly improve the living conditions of their populations. “OK, it is low. Why do I say it's low?

Explain why that level of rate. Most of the housing in the South region is provided by private individuals. To private individuals, detect what the rent payable by tenants would be. They dictate the pace, not the government. The government only has a few housing projects—very few housing projects. R03”

5.5.5 Project A – Summary of Findings

The interviewees provided information contributing to developing six major themes, as shown in the Table 5.2.

Table 5.2: Summary of the Findings – Project A

Source: Author, 2024

No	Themes
1	Policy & legislation
2	Stakeholders Engagement & Collaboration

3	Challenges and barriers
4	Finance & Resources
5	Success & Drivers
6	Recommendations

The intra-case analysis of Project A (AHIDS1) in Rivers state the south-south region of Nigeria provides valuable insights into the challenges, stakeholder engagement, and overall performance of the affordable housing project. The analysis is based on interviews with ten key stakeholders and representatives from regulatory agencies.

Based on the extensive information provided about Project A, the following analysis and summary can be made:

1) Policy and Legislation for IDS1 Implementation:

- The implementation of public-private partnership (PPP) policies significantly supported the development of affordable housing schemes in Project A, as confirmed by ten participants.
- The collaborative strategy between government and private entities highlighted the effectiveness of joint efforts in making housing more accessible and economically viable for lower-income groups.

2) Stakeholder Engagement and Collaboration:

- Three major stakeholders were identified in Project A: government agencies, end-users, and financial institutions.
- Government agencies, such as the Bureau of Public Procurement (BoPP) and the Ministry of Works and Housing Development, were recognized as key players, suggesting the need for a multi-stakeholder approach in addressing affordable housing challenges.
- End-users were considered crucial stakeholders, and their opinions and requirements were deemed essential to be incorporated into the planning and design stages of affordable housing projects.
- Financial institutions played a critical role in project financing, and their involvement was closely linked to the challenges faced by the project.

3) Challenges and Barriers to Affordable Housing:

- Financial constraints, particularly the lack of adequate financial planning, were identified as the primary obstacle in implementing affordable housing initiatives, especially Project A.
- Excessive reliance on subcontracting was a significant root cause of Project A's failure, exacerbating the financial difficulties encountered.
- Other challenges included phasing issues, procurement methods, environmental factors, changes in prices, political challenges, disagreements between shareholders, over-ambition, and greed.
- Delays in establishing a special-purpose vehicle (SPV) to effectively manage and supervise the project were among the key factors causing challenges during the implementation of Project A.

4) Monitoring and Control for Affordable Housing:

- The Monitoring and Control (M&C) team in Project A consisted of external consultants and representatives from the government, specifically the ministry.
- The criteria for selecting the M&C team included professional experience, while some members emerged due to the political goodwill of interested politicians.
- Members of the M&C team included professionals such as civil engineers and quantity surveyors from the Ministry of Works.

5) Finance and Resources:

- Interviewees provided mixed views on the availability and affordability of public-private partnership housing projects in the south-south region.
- Some participants indicated that numerous PPP housing projects were available and affordable, while others stated that the projects were unaffordable for the average population due to the high cost of development.

6) Success and Drivers for IDS Implementation:

- Most participants viewed the government's performance in implementing affordable housing policies in the south-south region as poor, citing inconsistency in development, lack of basic amenities, and limited government-initiated housing projects.

- Only one participant stated that the government's performance was good, highlighting the government's support in providing land, necessary approvals, and collaborating with stakeholders.

In summary, Project A provided valuable insights into the implementation of affordable housing policies through public-private partnerships. While PPP policies were seen as supportive, several challenges were identified, including financial constraints, excessive subcontracting, and delays in establishing a special-purpose vehicle. The engagement of key stakeholders, such as government agencies, end-users, and financial institutions, was considered crucial for the success of affordable housing projects. The monitoring and control processes involved external consultants and government representatives, but the overall government performance in implementing affordable housing policies was viewed as poor by most participants. The findings emphasize the need for improved financial planning, effective stakeholder collaboration, and consistent government support to overcome the challenges faced in affordable housing initiatives.

5.6 Case One-Project B (AHIDS2)

5.6.1 Project Description of Project B

Project B, a civil servants' low-cost affordable housing project, is a Public-Private Partnership (PPP) involving the Bayelsa state government and the Federal Mortgage Bank of Nigeria (FMBN). This initiative intends to provide Bayelsa civil servants with suitable and reasonably priced housing to improve their well-being.

The government approved FMBN's request for property to assist in funding housing projects in the state. The state designated the Ministry of Lands, Housing, and Urban Development to collaborate with the bank to guarantee the successful conclusion of the ministerial pilot housing project in Project B Local Government Area, which aims to accommodate 1,000 civil servants.

FMBN's conventional construction rates do not apply to Bayelsa due to its unique geography, resulting in higher building costs than other regions in the country. The FMBN was founded to offer cost-effective mortgages and promote homeownership

among Nigerians, especially poor and middle-income individuals in the public and private sectors who allocate 2.5% of their monthly income.



Figure 5.7: Image of Project A – Urban Renewal Project

Source: Author, 2024

The Project's Long-term objective is to build a new housing estate in a known community in Bayelsa that has the potential to result in the responsible development of the surrounding area, which may include the construction of infrastructure such as roads, schools, and medical facilities. This might be a positive outcome for the community. When it comes to the planning and development of metropolitan areas, this is something that may be taken into consideration. As a result, there is a possibility that this may attract new enterprises and inhabitants, which can ultimately lead to the promotion of economic growth and an improvement in the quality of life to a greater extent. Similarly, the development of community: The project has the potential to create a sense of community and belonging among government employees, encouraging social cohesion and creating an environment that encourages collaboration. They may be able to achieve this goal by taking part in the training.

5.6.2 Details of interviews and interviewees' profiles – Project B

This study decided to present the data relating to the different projects in which the interviewees participated separately, which would help the case analysis. According to ethical considerations, interview participants were assigned labels R07, R09, and so on until R10. These anonymized labels allow the use of quotes without revealing the identities of the individuals. Furthermore, the NATO phonetic alphabet was used as a code, and the nature of participation indicates the sector to which they belong, making them eligible to be interviewed for the project because they must be directly involved in the existing project. The table below shows the participants involved in Project B.

Table 5.3: Project B – Respondent's Profile

Source: Author (2024)

S/No	Respondent	Code	Nature of Involvement	Job Position	Years of Experience
11	R07	Kilo	Government	Commissioner for Works (CW)	15
12	R09	Lima	Contractor	Project Contractor (PC)	13
13	R10	Mike	Government	Director of Works (DW) Presentative	30
14	R11	November	Main Contractor	Project Manager (PM)	15
15	R15	Oscar	Developer	Representative	15
16	R16	Papa	Consultant	Project Engineer (PE)	20
17	R17	Quebe	Regulatory Body	Representative	17
18	R18	Romeo	Subcontractor	Steel Work Supplier (Owner)	25

5.6.3 Intra-case Analysis – Project B

This section offers an in-depth examination of the data gathered to evaluate the feasibility of IDS2 (Infrastructure Delivery Systems for Project B). The information was sourced from interviews with eight (8) key stakeholders (Respondents), as outlined in

Table 5.3 and supplemented by insights from representatives of regulatory agencies. The data collected from these sources were crucial for assessing the proposed propositions. The primary objective of this analysis is to thoroughly scrutinise the obtained data to ascertain the practicability and potential execution of IDS.

5.6.3.1 Validation of FAHPI components – Project B

To validate the FAHPI Framework, the study presented it to the interviewees within Project B. All interviewees expressed their acceptance of the principles behind the Framework and agreed with its various components, including:

- 1) The elements of the FAHPI Framework
- 2) The relationships between these elements
- 3) The challenges faced during the project implementation stage.
- 4) The responsibilities of the Monitoring and Control team

The interviewees' unanimous agreement with the principles, elements, and relationships within the FAHPI Framework demonstrates its conceptual soundness and applicability to Project B. Furthermore, their recognition of the challenges encountered during the implementation stage and the responsibilities of the Monitoring and Control team highlights the Framework's practical relevance and its ability to capture the real-world complexities of project execution.

The validation process, which involved gathering feedback and confirmation from the interviewees directly involved in Project B, reinforces the credibility and robustness of the FAHPI Framework. The interviewees' acceptance of the Framework's principles and their agreement with its components provide strong evidence for the validity and practical utility of the FAHPI Framework in the context of Project B.

5.6.3.2 Policy and Legislation IDS2 Implementation

This theme represented the different policies and legislation that contributed to establishing the affordable housing schemes under consideration in the research study. The main category under this theme was policies contributing to establishing affordable housing schemes.

According to respondents R07, R09, and R15, the public-private partnership (PPP) policy has been one of the most prevalent and influential policies in promoting the development of affordable housing initiatives. In corroboration, the respondent, referred to as R09 emphasised that:

"Our engagement in public-private partnerships is comprehensive and strategic, primarily focusing on projects involving private entities and, more significantly, governmental bodies. Our collaboration with the Nigerian Army exemplifies this focus, where we are tasked with constructing housing units for military personnel. This ambitious project encompasses the development of 1,304 housing units at one of the locations as part of a larger initiative that spans approximately 16 sites across Nigeria. – R09

Similarly, R07 revealed that the State government has just initiated the PPP process for affordable housing in Bayelsa State and is looking to provide 20,000 units. Additionally, R15 explains that the collaboration of the public-private partnership Akwa Ibom project is a contract in which the Government are the main client. This means that:

"It's a partnership between the private sector, the public sector, and a developer." – R15

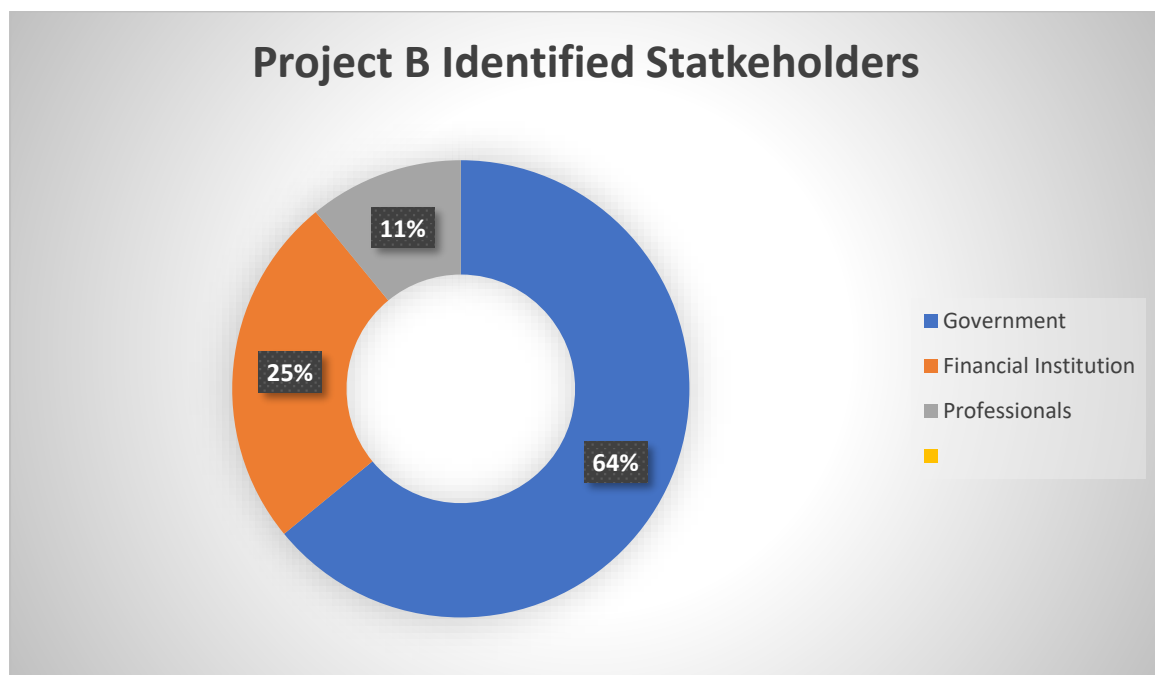
Governments possess the distinctive power to implement policies and regulations that can create a favourable environment for affordable housing development. These measures encompass zoning laws, building codes, and tax incentives, which can effectively stimulate or require the construction of affordable housing units, thereby increasing the availability of accessible living options for those in need R10.

"The major causes of failure when handling projects are government policies because the policy that was put in place for Project B was not implemented to the letter and the enforcers of the policy did not do their due diligence to ensure it followed to the later that is why I think the project has not been finalised till now." – R10

5.6.3.3 Stakeholders Engagement & Collaboration

This theme represented the different issues related to stakeholders' engagement and collaboration in implementing affordable housing projects. The issues discussed under this theme included stakeholders in affordable housing projects, the role of stakeholders in implementing affordable housing projects, factors contributing to stakeholder efficiency in implementing affordable housing projects, stakeholders responsible for failure of affordable housing projects, and stakeholder strategies to ensure the accomplishment of affordable housing policies.

The participants involved in Project B identified different stakeholders in affordable housing projects. The major people they considered to be stakeholders in the project and what their role entails that will lead to successful collaboration.



i. Government

Five of the respondents in Project B insisted on government involvement as a key stakeholder in developing and implementing affordable housing initiatives, highlighting a critical perspective on addressing housing challenges. This viewpoint underscores the importance of a coordinated effort, emphasising that effective and sustainable

affordable housing strategies often require the support and intervention of government bodies for several reasons:

The key stakeholders in the project are the government, financial institutions, and professionals, who are essential collaborators in ensuring the success of the affordable housing initiative. - R18

The key stakeholders participating in the project include the government from the public sector, which takes the lead in initiating the project, and the private sector mortgage bank, which is responsible for managing the financial aspects of the project. Additionally, professionals are involved in the daily operations and management of the project, ensuring its smooth execution... R10.

Governments possess the distinctive power to implement policies and regulations that can create a favourable environment for affordable housing development. These measures encompass zoning laws, building codes, and tax incentives, which can effectively stimulate or require the construction of affordable housing units and thereby increase the availability of accessible living options for those in need. R09

Governments have the capacity to offer direct funding, subsidies, and tax relief to reduce the expenses associated with development and operation. By providing these financial incentives, governments enable developers to offer housing units at prices below market rates, thereby increasing the supply of affordable housing for those who need it most. R11

Public-private partnerships (PPPs): By engaging in PPPs, governments can leverage the private sector's efficiency and innovation while ensuring that public interests are served. These partnerships can be instrumental in creating affordable housing that meets community needs without compromising on quality or accessibility. R17

ii. Financial institutions

In the context of Project B, banks and other financial institutions emerge as pivotal stakeholders in the realm of affordable housing development. Their growing involvement in financing housing projects marks a significant and positive shift. This

trend not only opens new investment avenues for these institutions but also plays a vital role in enhancing the overall investment landscape within the affordable housing sector. The infusion of capital from banks is instrumental in driving the development of affordable housing, indicating a mutually beneficial relationship between the financial sector and affordable housing initiatives."

Views from Respondent R07

"The financial sector plays a crucial role in affordable housing development by providing the necessary funds and capital. This support is perhaps the most direct and significant contribution of financial institutions to the affordable housing market" – R07

Views from Respondent R10

"Financial institutions offer various products and services essential for the success of affordable housing projects, such as construction loans for developers, mortgages for potential buyers, and other financial tools designed to make housing more attainable for lower-income individuals. Without these institutions' financial backing and involvement, developers may face significant challenges in securing the required capital to undertake large-scale housing projects, which could hinder the growth and availability of affordable housing in the community." R10

iii. **Professionals**

Other stakeholders identified in Project B included the professionals.

R10

We also have the contractors involved, including our technical section, civil engineers, quantity surveyors, surveyors, builders, and project managers in the business.

R15

Civil Engineers, Quantity surveyors, Land surveyors, Builders, Supervisors, QA/QC team, Safety team, and the project manager.

iv. Stakeholders in the implementation of affordable housing projects

The interviewees highlighted the different stakeholders' roles in implementing affordable housing projects. These included:

“The contractor also ensures that the materials, labour, and equipment that are supposed to be put on the ground to execute the project are available. The project manager monitors the project completely, so we all have our own roles” – R10.

“The project Manager drives the whole project design and execution process by ensuring schedule and cost management with quality delivery. He or she also schedules regular progress meetings and reports weekly to the client.

The civil engineer manages the structural aspects of the buildings, while the builders supervise other construction activities to ensure quality delivery and work done to specification. The quantity Surveyor evaluates vendors' and subcontractors' work for payment processing and evaluates materials needed on-site. The land surveyor determines the alignments of buildings. The QA/QC team ensures adherence to quality, while the Safety team ensures safety conformance. R17”

“The Project Manager oversees the deliverables' cost and quality from inception to conclusion. The civil engineer monitors the structural aspects of the buildings to ensure proper construction and structural stability.

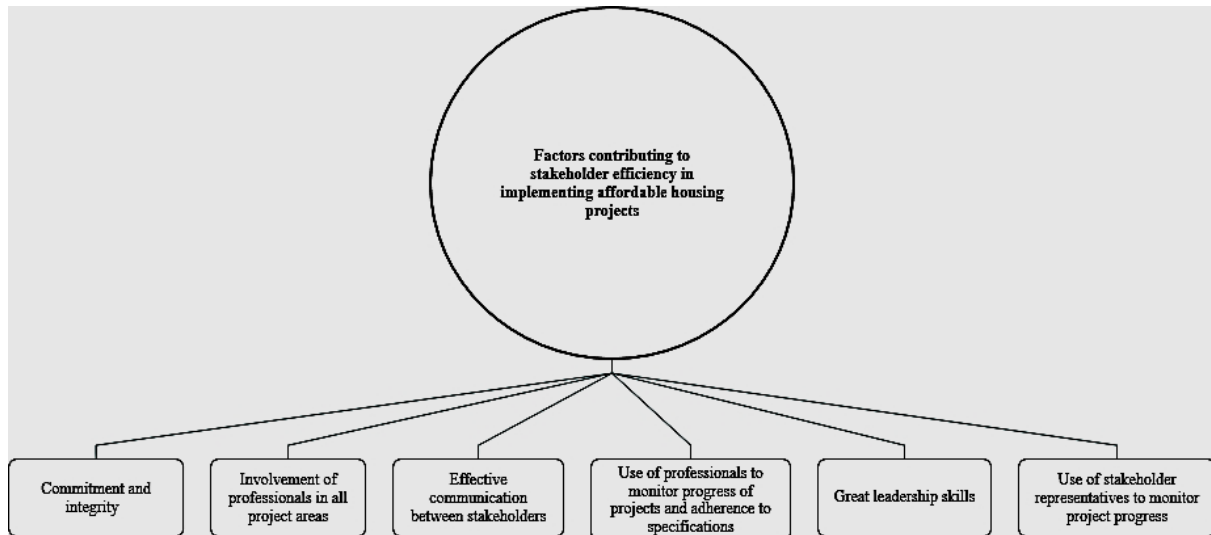
The QS evaluate materials needed on-site and values vendors to work for milestone payment purposes. The surveyor gives buildings and road alignment and ensures levels of consistency on the project. The builders and supervisors ensure proper supervision of works to be done on-site.” R18

One of the participants indicated that the government's role in implementing affordable housing projects is to provide land and approve designs.

The client makes sure the land is available or all the taxes to be paid for the registration of the lands and all the designs. R10

5.6.3.4 Factors contributing to stakeholder efficiency in implementing affordable housing projects.

The interviewees identified different attributes that enhance stakeholders' efficiency during affordable housing projects, including:



i. Commitment and integrity

Taking responsibility and diligence in executing their duties

ii. Involvement of professionals in all project areas

R10

Professionals were engaged from the beginning, and everybody knew their role. For efficiency, if you employ experts in that project and things start to move, you will see results; so far, professionals are fully involved in all sectors of the project, and that's why we have a good flow.

iii. Effective communication between stakeholders

R07

Prompt and accurate communication between the stakeholders and the site team

iv. Use of professionals to monitor the progress of projects and adherence to specifications.

The state ministry also constitutes a team of engineers who visit the site once a month to check the progress of work and adherence to specifications. R11

v. Great leadership skills

They exhibit good leadership skills. R09

vi. Use of stakeholder representatives to monitor project progress.

Each stakeholder has a representative onsite who also monitors the progress of work. R15

5.6.3.5 Stakeholders responsible for the failure of affordable housing projects

This was the interviewees' opinion related to stakeholders responsible for the failure of affordable housing projects. One of the interviewees stated that the government was responsible for the failure of affordable housing projects.

Partly the client as some expected funds were not made available at time due. R16

Another interviewee indicated that the project manager was responsible for the failure of affordable housing projects.

Partly, the project manager was not proactive. R17

5.6.3.6 Stakeholder strategies to ensure the accomplishment of affordable housing policies.

The interviewees highlighted different strategies put in place by different stakeholders to ensure the accomplishment of affordable housing policies, including:

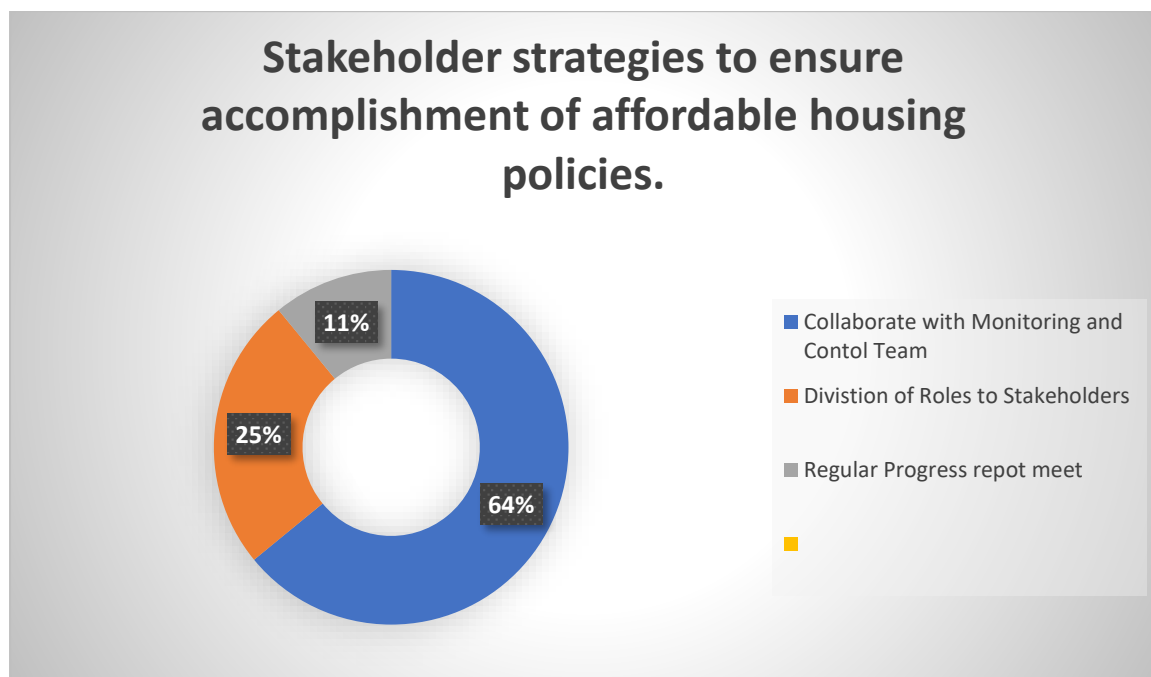


Figure 5.8: Strategies for Affordable Housing Policy

Source: Author, 2024

5.6.3.7 Collaborating with monitoring and control team

Each stakeholder has a representative onsite who also monitors the progress of work. The state ministry also constitutes a team of engineers who visit the site once a month to check the progress of work and adherence to specifications. R07

i. Division of roles to stakeholders

In our analysis of stakeholder roles in the efficient operation of housing projects, R15 elaborated on the specific responsibilities assigned to each party to ensure the project's smooth execution. According to R15, the government, serving as the client, is tasked with providing the land and ensuring timely execution of all necessary property documentation and registration processes. Contractors, on the other hand, are responsible for the mobilization of personnel and equipment, as well as sourcing construction materials to maintain a steady flow of operations. The project manager plays a crucial role in overseeing the financial aspects of the project. R15 emphasized that financial management is critical, noting that any delays in financial flow can severely impact the project's progress. Each stakeholder has a distinct and crucial role,

underscoring the importance of clear role delineation and coordination to prevent disruptions and achieve project objectives efficiently.

ii. Regular Progress report meetings

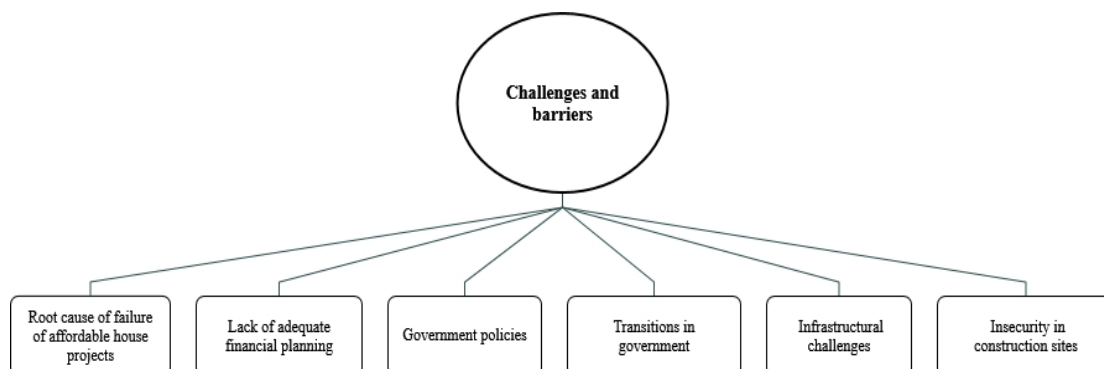
In assessing the effectiveness of communication within project teams, it is noteworthy that regular meetings are held to ensure cohesive understanding and alignment on project delivery.

According to respondent R07, *"We have meetings regularly, meetings to make sure that everybody is on the same level of the project delivery."*

This shows a structured approach to maintaining project coherence and team synergy. Regular meetings serve as a vital mechanism for ensuring all team members are informed and engaged with the aims and objectives of the project.

5.6.3.8 Challenges and Barriers in Affordable Housing

This theme represented the challenges and barriers to implementing affordable housing projects. The different issues highlighted by the interviewees under this theme included the root cause of the failure of affordable housing projects, the nature of failure, challenges affecting the implementation of affordable housing projects, implications of failed affordable housing projects, and the impact of challenges on the overall success of affordable housing projects. This category represented what the interviewees viewed as the root causes of failure in affordable house projects.



i. Lack of Political Goodwill

combining insights from respondents R15, R09, and R11 regarding the lack of political goodwill, a comprehensive understanding emerges that underscores this deficiency's multidimensional impacts on project execution. R15, R09, and R11 point to a significant obstacle affecting project advancement: the lack of political goodwill.

R15 emphasizes the direct impact of this lack on project timelines and regulatory compliance, suggesting that projects face an uphill battle in achieving their goals without political backing. R09 adds a layer of complexity by discussing the challenges in public-private partnerships, where governmental collaboration and support are both beneficial and essential. The absence of political goodwill in these contexts can lead to misalignment between project objectives and government policies, causing delays or even project cessation.

R11 elaborates on the financial consequences noting that the political environment can significantly affect investor confidence. A perceived lack of government support can deter domestic and international investment, which is often critical for project financing.

Change of administration that is from one Government to another, the Nigeria political administration system always lasts for Four years, a situation whereby the current government start a project and cannot finish the project before the end of that government tenure the next government that comes in usually don't like to continue with their predecessors project, they only start a new project leaving the previous project unattended to.

ii. Inadequate Finance

According to respondents R16, R17, and R18, funding constituted a pivotal obstacle in executing Project B. This highlights a multifaceted issue deeply rooted in the intricacies of the client's approval mechanisms and the schedule of fund releases.

“Expected financial resources, crucial for maintaining the project's momentum and meeting its timelines, were not released as anticipated. This delay in funding approval and availability significantly impacted the project's progress, causing setbacks and

complicating the management of operational timelines and budgetary commitments.” – R16

“The inability to secure timely financial support underscores the importance of effective financial planning and the need for clear agreements on funding schedules between clients and project managers to ensure smooth project execution.” – R17

R18 adds a strategic perspective, suggesting that the root of the funding challenge was not just procedural but also indicative of a larger issue related to communication and alignment of expectations between the project team and the client regarding financial disbursements.

Collectively, these insights shed light on the critical nature of funding, which is not merely a financial challenge but a complex issue that encompasses project management, client relations, and strategic planning. Project B's experience underscores the necessity for clear communication, robust contingency planning, and flexible project management strategies to navigate the uncertainties of funding approvals and disbursements.

iii. Inconsistent Government Policy

Respondents R15, R16, R17, R18, and R07 have collectively highlighted the substantial impact that inconsistent government policies, changes in administration, and transitions in government have on the execution and success of projects.

R15 notes that inconsistent policies can lead to abrupt shifts in regulatory environments, affecting project compliance and operational guidelines. Additionally, R16 emphasises the challenges introduced by changes in administration, which often result in shifts in priorities and can lead to the revaluation or halting of ongoing projects.

Furthermore, R17 and R18 discuss the difficulties in navigating transitions in government, pointing out that such periods can be marked by delays in decision-

making, funding freezes, and a lack of clear directives as new administrations assess their agendas and priorities.

R07 adds to this by underscoring the importance of strategic planning and adaptability in project management to mitigate the risks associated with these governmental changes. These insights underscore the need for projects to be designed with a degree of flexibility and resilience, allowing them to adapt to changing policies and administrative priorities. Moreover, they highlight the importance of engaging with governmental stakeholders across the political spectrum to ensure broad-based support and understanding for projects, thereby reducing the risks associated with political transitions and policy inconsistencies.

iv. High Cost of Construction Materials

respondents R07, R09, R10, and R11 regarding the high cost of construction materials due to currency fluctuations, the escalating cost of construction materials has been identified by respondents R07, R09, R10, and R11 as a significant challenge impacting the budget and financial planning of projects. their collective viewpoints:

A notable factor contributing to this issue is the reliance on imported materials, such as reinforcement steel and certain types of cement, which are crucial for construction. The fluctuation in the naira exchange rate against the dollar has worsened the situation, with a dramatic increase observed during the project's execution phase. Initially, the exchange rate was approximately 250 naira to a dollar when the project was awarded. However, over the course of the project, this rate surged to nearly 1000 naira to a dollar, substantially raising the cost of imported materials.

This sharp increase in the exchange rate has had a profound impact, significantly inflated the cost of materials and thereby affected the overall project budget. R07

Respondents R09 emphasise that “currency volatility introduces substantial financial risk, complicating the management of project costs and necessitating adjustments to financial projections and strategies.”

Respondent R10 underscores “the importance of incorporating currency risk mitigation measures in project planning and budgeting, such as hedging, sourcing local materials

when feasible, and including contingency funds to accommodate unforeseen increases in material costs.”

Similar to the previous year, we encountered significant challenges due to unfavourable policies from the Central Bank of Nigeria concerning cash flow management. These policies led to various difficulties, including a sharp increase in the cost of materials. Essentially, the situation forced us to spend more to maintain our financial liquidity, contributing to a cycle of inflation that unpredictably affected our budgeting and planning. This financial turbulence directly impacted several of our housing unit projects, influencing both their cost and timely completion.” R11

v. Excess taxation

Respondents R09, R11, and R15 comprehensively view the challenges posed by excess taxation and inadequate financial planning in the context of affordable housing projects. The respondents have drawn attention to two critical issues affecting the viability and success of affordable housing projects: excess taxation and inadequate financial planning.

R11 emphasises “the importance of robust financial planning in navigating these challenges. The lack of adequate financial planning is seen as a pivotal reason for the failure of affordable house projects, as it leaves little room for manoeuvring when unexpected costs, such as those arising from increased taxation, occur.”

R15 further corroborates these points by indicating that “high taxation and inadequate financial planning create a precarious situation for affordable housing projects. Without careful and anticipatory financial strategies, projects can quickly become financially untenable, jeopardising their completion and the broader goal of providing affordable housing.”

These perspectives underscore the necessity of addressing the dual challenges of excess taxation and inadequate financial planning. They call for a concerted effort among project stakeholders to advocate for tax reforms that recognize the importance of affordable housing and to adopt financial planning practices that are comprehensive, flexible, and resilient to the uncertainties of project development.”

5.6.3.9 Challenges affecting the implementation of affordable housing Project B

The interviewees expressed different views on the challenges affecting the overall completion of Project B affordable housing.

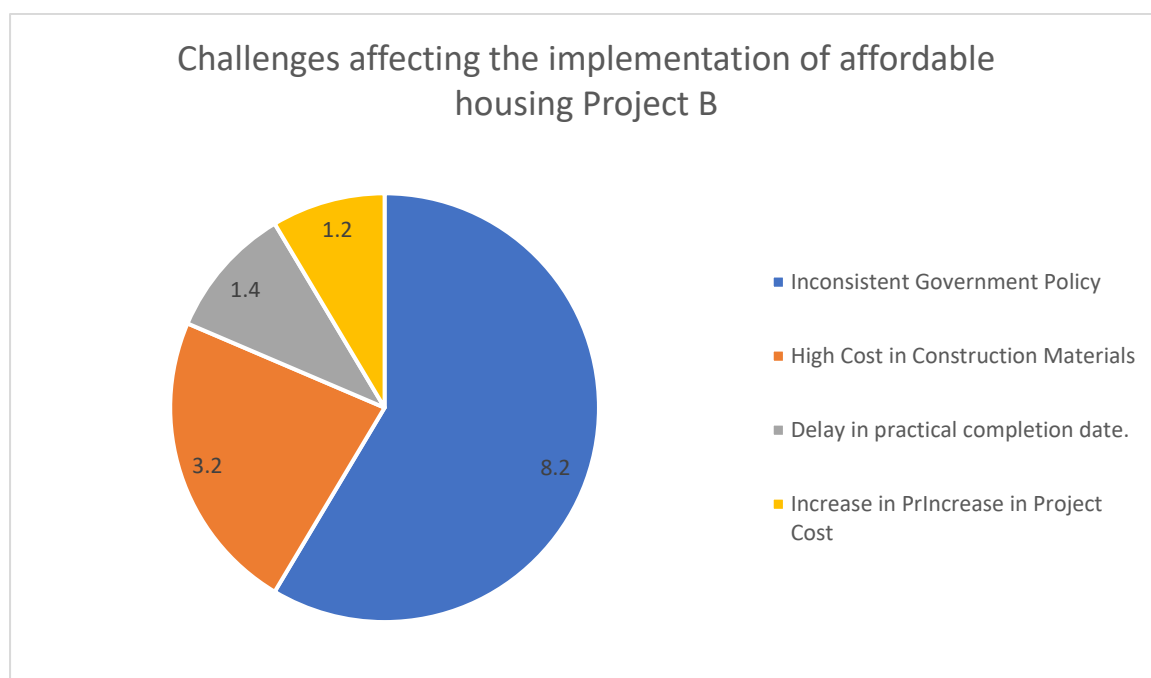


Figure 5.9: Affordable Housing Implementation Challenges – Project B

Source: Author, 2024

i. Delay in Project Delivery

Two interviewees highlighted delays in project delivery as a significant impact of challenges on the overall success of affordable housing projects.

R07

Yes, I will give you an example of how to supply material the other day. The contractor, the subcontractor, wants to give us about 200 trucks of stone base, and he got to a stage where he needed to pay for royalties in the quarry, and we have already issued him a check. And before he goes for confirmation or no confirmation, those trucks must park for two days. So those two days already have affected our programme for the day for the smooth running of the project. So, we start to think of other options. You know how to manoeuvre in that kind of situation. So, it's always a smaller challenge in the construction business. So, other ones are there. The other day, there was a strike

within the labour union. So, you see now that you can do anything, so for those few days, the strike in some of the areas, if you move towards the south, is to take materials on Mondays as the people declare a sit-at-home public holiday. So, you now know that all your movement will stop somewhere, so take off on Mondays. You can go through that site. So, all the vehicles are to Park on Sunday as against Monday; you continue your journey on Tuesday. So, in a week you already know that one day, we will make an effective programme on what you have. So, all these things are part of what is affecting us. But in the end, we're still tracking it, and it might be minimal if we put all these things together in terms of delay of the project.

i. Delay in practical completion date.

The interview with respondent R09 highlighted the critical challenge of delays in practical completion dates for affordable housing projects. These delays have a direct and detrimental impact on project costs, threatening the financial viability and success of these initiatives.

R09 stated, *"One of the major challenges we face is the delay in the practical completion of the project, which leads to an increase in the cost of the project"*.

To mitigate these risks, project managers must prioritize effective strategies, including adherence to timelines, robust monitoring and control, and clear communication among stakeholders. Proactively addressing delays is essential to enhance the viability and success of affordable housing projects.

ii. Increase in Project Cost

During the investigation into factors affecting the viability of affordable housing projects, R08 and R09 both highlighted an increase in project costs as a primary concern. This escalation in costs is identified as a critical challenge that impacts the overall success and sustainability of housing developments. The respondents pointed out that these cost increases arise from a variety of sources, including higher prices for materials, labor, and compliance with regulatory changes, which can significantly alter budget forecasts and financial planning. Both respondents emphasized the importance of stringent cost management and thorough project planning to mitigate these increases. Their insights suggest that controlling project costs is essential not only for keeping housing affordable but also for ensuring the long-term feasibility of such initiatives in the face of economic fluctuations. This

shared perspective underlines the need for effective strategies to manage and anticipate potential cost overruns in order to maintain the affordability and completion timelines of housing projects.

iii. Inconsistent Government Policy

A critical barrier to the success of affordable housing projects identified in our discussions is the inconsistency in government policies.

According to R8, that stated “fluctuating government policies significantly hinder progress and planning in housing developments”.

Understanding the context inconsistency can lead to uncertainty among investors and developers, who rely on stable regulatory environments to forecast costs and returns effectively. Furthermore, changes in policy can impact ongoing projects, potentially causing delays, increased costs, or even halting developments altogether. The interviewee's observations emphasize the need for a more stable and consistent policy framework to support the effective delivery of affordable housing projects. This would not only improve project feasibility but also attract more consistent investment in the sector.

iv. High Cost of Construction Materials

One of the principal challenges impacting the development of housing projects, as noted by R15 and R09, in project B is the high cost of construction materials. This factor plays a significant role in escalating the overall expenses associated with building affordable housing. The increase in material costs directly influences the budgeting and financial planning of projects, making it increasingly difficult to maintain affordability for the target demographic. R15's insights underscore the need for strategic planning and possibly seeking alternative building materials or methods that could help manage costs while still delivering quality housing. This challenge highlights the broader economic factors that influence housing development and necessitates a comprehensive approach to addressing the financial constraints within the sector.

5.6.3.10 Monitoring & Control System for Affordable Housing in Project B

This theme included all issues related to monitoring and control in implementing affordable housing projects. The different categories under this theme included the monitoring and control (M&C) team in charge of implementing affordable housing projects, criteria for selecting the M&C team, members of the M&C team, challenges encountered by the M&C team in affordable housing projects, and types of conflicts among members of the M&C team.

- **Monitoring and control (M&C) team in charge of implementation of affordable housing projects.**

This category represented the interviewees' responses, pointing out the monitoring and control teams that oversaw implementing affordable housing projects.

One of the interviewees stated that a team led by the project manager was the monitoring and control team in charge of implementing affordable housing projects.

Respondent R07

"Yes, yes, that's why we have the project manager. We have a full monitoring and control team, not only to look at the work programme or the project. They have a lot of roles, including the testing of the materials, which is fully monitored and controlled, and the certification of the contractors, equipment, and all of them." – R07

- **Criteria for selection of the M&C team**

This category represented the views of the interviewees related to the criteria utilized to select the monitoring and control team.

Considering qualifications and experience was the most highlighted criteria for selection of the monitoring team by two interviewees.

Respondent R10

Yes, CVs were submitted and verified by the professional bodies. So I think that's what they did for every professional hired for the project.

Respondent R15

Experience and familiarity with similar projects.

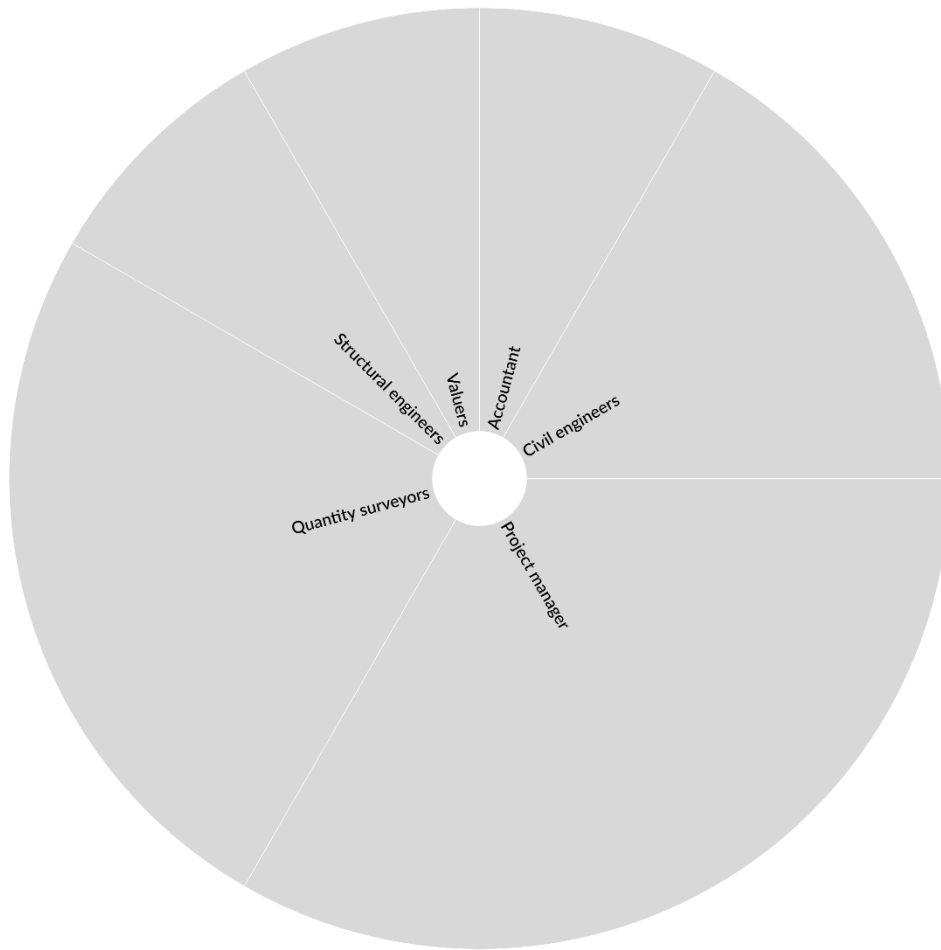
Other identified criteria for the selection of the monitoring and control team included:

Respondent 8

Knowledge of quality and safety procedures and Knowledge Of the project deliverables

- **Members of M&C team**

This category represented the different professionals that were identified by the interviewees as being members of the monitoring and control team.



According to two interviewees the project manager was one of the most important members of the monitoring and control team.

Respondent R07

Yes, yes, that's why we have the project manager. We have a full monitoring and control team, not only to look at the work programme or the project. They have a lot of roles, including the testing of the materials, which is fully monitored and controlled, and the certification of the contractors, equipment, and all of them. Project managers and lots of other professionals.

Respondents 15 and 16

the project manager

Other identified members of the monitoring and control team by the interviewees included:

Quantity surveyors

Respondent R17

We also have quantity surveyors certified by quantity surveyors of Nigeria.

Civil engineers

Respondent R18

We also have civil engineers Certified by Coren

Accountant

Respondent R11

In the account sections, we have certified ICAN accountants.

Structural engineers

Respondents 17 and 18 agreed that the

Structural engineers are also certified by Coren.

Valuers

Respondent

And the valuers

- **Challenges encountered by the M&C team in affordable housing projects.**

This category represented the challenges encountered by the monitoring and control team in affordable housing projects as identified by the interviewees.

One of the most identified challenges encountered by the M&C team in affordable housing projects was conflict between professionals.

Respondent 6 DPC

Sure, there's always a little conflict, and understanding ourselves was a little bit difficult at first, but we are all focused on achieving a common goal: the success of the project.

Other highlighted challenges encountered by the M&C team in affordable housing projects according to the participants included:

Bureaucracies

Respondent 6 DPC

challenges they have, initially, you know, bureaucracies of the client sometimes I will raise an issue for officers. They feel that this is not important that the contractor was supposed to solve it, but it got to a stage we now balanced, and we are having periodic meetings, and this WhatsApp group which we created helped us, you know, where many people are involved you will have diverse views. There are some times you want a certain approach and , the other man also wants another approach it takes time for all of us to agree but in the end we agree on the best possible way for the task and we are making progress.

Supervising adherence of large projects is a tedious task

Respondent 8

Supervising Adherence to the prepared monitoring and control methods is a serious task, based on the volume of project at hand.

- **Types of conflicts among members of the M&C team**

This category represented the different types of conflicts the interviewees had witnessed among members of the monitoring and control team.

Most of the interviewees stated that there was no conflict among members of the monitoring and control team.

“No conflict as the team builds a good teamwork spirit among themselves” – R09

However, one of the interviewees stated that there was little conflict related to understanding of roles among some members of the monitoring team.

“Sure, there is always a little conflict and understanding ourselves was a little bit difficult at first, but we are all focused on achieving a common goal which the success of the project.” – R07

5.6.3.11 Finance & Resources for Project B

This theme represented the different financial resources and general resources identified by the interviewees as being important to the implementation of affordable housing projects. The categories under this theme included: Views on the availability and affordability of public-private partnership housing projects B in the south-south region.

The interviewees provided different views on the availability and affordability of public-private partnership housing projects in the state where Project B is located.

There is a shortage of affordable housing in Bayelsa State, Nigeria. This is a problem throughout the country, but it seems to be particularly bad in Bayelsa. There have been many government housing projects that were started but never finished. Because of this, many people are living in rundown homes.

“There have been many government housing projects that were started but never finished. Because of this, many people are living in rundown homes.” - R07

The interviewees, specifically R09, R11, and R15, mentioned that the current housing projects in Bayelsa are not affordable for most people living in the area. They pointed out that the prices of these housing units are too high for the average person to afford, making it difficult for many families to access decent housing.

R11 highlights a significant issue in the region, where the housing projects that are supposed to cater to the needs of the local population are not meeting their affordability requirements. As a result, many people are left struggling to find suitable housing options that fit within their financial means.

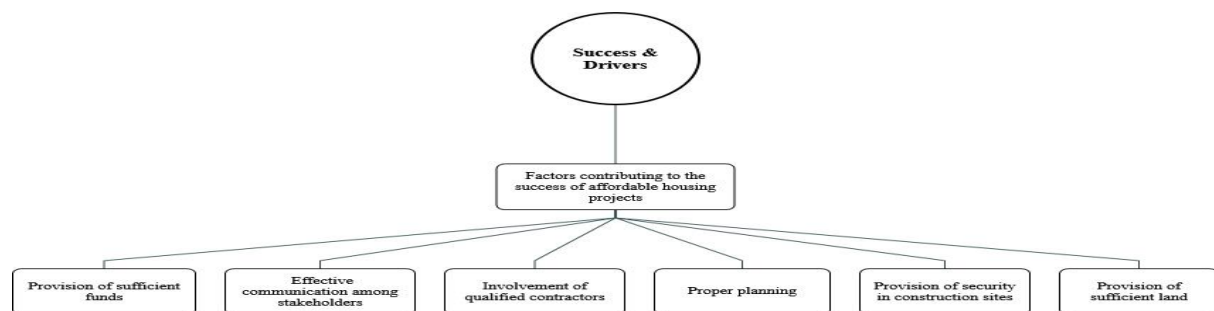
The interviewees' observations suggest that there is a pressing need for more affordable housing initiatives in Bayelsa, which consider the economic realities of the

average resident. This could involve the development of housing projects with lower costs, subsidies for low-income families, or other measures that make housing more accessible and affordable for the local population.

5.6.3.12 Success & Drivers for IDS Implementation Affordable Housing Policy

This theme included factors considered successes or drivers of affordable housing projects. The main categories contributing to this theme included Factors contributing to the success of affordable housing projects and assessment of government performance in implementing affordable housing policies in Project B.

Factors contributing to the success of affordable housing projects.



The interviewees highlighted different factors contributing to the success of affordable housing projects. These included:

i. Provision of sufficient funds.

“Availability of financial that will enable the project not to have stopped. R16”

ii. Effective communication among stakeholders

R17 identified.

Good communication line and Finance

iii. Involvement of qualified contractors

The respondent appraised the contractors involved in the project, about their comment qualifications.

The contractor seems to be doing a good job. They've got the right people and equipment on site, and they're following safety protocols. They also have the project insured. In short, things appear to be on track from a construction management perspective. R17

iv. Proper planning

R07 identified Proper planning and finance as a success driver.

v. Provision of security in construction sites

The interviewees R10, R11 and R16 emphasized the importance of providing security at the construction site, considering it a key driver for the project's success. They explained that the southern area of the region, which is riverine and includes slums, is still in its developing phase. Given the presence of individuals in the community who might attempt to vandalize materials on the site, the provision of security measures is crucial to safeguard the project's assets and ensure smooth progress.

The interviewees' observations highlight the challenges faced by construction projects in developing areas, where security concerns can pose significant risks to the successful completion of the project. By acknowledging the potential for vandalism and theft, the project team demonstrated a proactive approach to mitigating these risks through the implementation of appropriate security measures.

This emphasis on security underscores the importance of understanding the local context and adapting project strategies accordingly. It also suggests that effective risk management, including the identification and mitigation of security risks, is a critical component of successful project implementation in challenging environments.

- **Provision of sufficient land**

“I think from the side of the client, all what is needed the client has provided. The availability of the land is over 130 hectares of land.” -

R07

5.6.4 Summary of Project B

Based on the detailed information provided about Project B, the following Findings and summary can be made:

1. Policy and Legislation for IDS2 Implementation:
 - Public-private partnership (PPP) policy was identified as one of the most influential policies in promoting affordable housing development.
 - Government policies played a crucial role in creating a favourable environment for affordable housing through zoning laws, building codes, and tax incentives.
 - Inconsistent government policies and lack of implementation were seen as major causes of project failure.
2. Stakeholder Engagement and Collaboration:
 - Key stakeholders identified in Project B included the government, financial institutions, professionals (e.g., project managers, engineers, quantity surveyors), and contractors.
 - Factors contributing to stakeholder efficiency included commitment and integrity, involvement of professionals, effective communication, use of representatives to monitor progress, and great leadership skills.
 - Strategies to ensure the accomplishment of affordable housing policies included collaborating with the monitoring and control team, dividing roles among stakeholders, and holding regular progress report meetings.
3. Challenges and Barriers in Affordable Housing:

- The root causes of failure in affordable housing projects were identified as lack of political goodwill, inadequate finance, inconsistent government policy, high cost of construction materials, and excess taxation.
- Challenges affecting the implementation of Project B included delays in project delivery, increases in project costs, inconsistent government policies, and high cost of construction materials.

4. Monitoring and Control System:

- A team led by the project manager oversaw monitoring and controlling the implementation of Project B.
- Criteria for selecting the M&C team included qualifications, experience, knowledge of quality and safety procedures, and familiarity with project deliverables.
- Members of the M&C team included the project manager, quantity surveyors, civil engineers, accountants, structural engineers, and valuers.
- Challenges encountered by the M&C team included conflicts between professionals, bureaucracies, and the tedious task of supervising adherence to monitoring and control methods.

5. Finance and Resources:

- Interviewees mentioned a shortage of affordable housing in Bayelsa State, with current housing projects being unaffordable for the average population.
- Challenges in implementing affordable housing policies included inadequate funding and the high cost of building materials.

6. Success and Drivers for IDS Implementation:

- Factors contributing to the success of affordable housing projects included provision of sufficient funds, effective communication among stakeholders, involvement of qualified contractors, proper planning, provision of security in construction sites, and provision of sufficient land.

In summary, Project B provided valuable insights into the validation of the FAHPI Framework, the roles of stakeholders, challenges encountered, monitoring and control systems, and success factors in affordable housing projects. The findings emphasize the importance of effective policies, stakeholder collaboration, adequate resources, and robust monitoring and control mechanisms for the successful implementation of affordable housing initiatives.

5.7 Case One-Project C (AHIDS3)

5.7.1 Project Description of Project C

Akwa Ibom State's Project C Low Housing Project is situated in the Ibeino Ibom Local Government Area. The project is predominantly funded by Family Homes Funds (FHF) Mortgage Bank, an organisation founded in Nigeria to address the housing deficit. Family Homes Funds (FHF) has initiated initiatives in approximately five of the 36 states in the country.

The principal client of the initiative, which is funded by FHF via a Public-Private Partnership (PPP) agreement, is the state government. The funds are deposited into a fixed account and their disbursement is contingent upon the contracts' predetermined milestones being met.

The initiative was granted to the real estate and property listing platform OpenHouse Nigeria Property. As of June 2nd, 2022, the project had been initially devised as a 325-building endeavour comprising 650 units, with an initial budget of N4.8 billion naira.

Inflation and numerous obstacles that have plagued Nigeria over the last three years have prompted a re-evaluation of the project. 52% to 55% of the funds have been utilised thus far, and 118 structures remain unfinished.

The project was supposed to last between six months to one year however, In light of fluctuating market prices and multiple economic crises, the surveillance and control team is reevaluating the remaining funds' capacity to construct the full number of buildings.

Plastering is at 99% complete, fittings and other work is at 95%, and the foundation to roof phases of the 118 completed structures are currently in the final stages of completion. Although they are currently undergoing review, they are not yet available for distribution to end-users.

Figure 5.10 shows the image of Project C - Low Housing Project



Figure 5.10: Image of Project C – Low Housing Project Source: Author, 2024

The Long-term objective of the programme is to provide public officials with affordable housing options, which will allow them to become homeowners and break free from the limits of the rental market. This will eventually lead to an increase in the number of people who own their own homes. The buildup of wealth and enhanced financial stability are both possible outcomes that could materialise because of this. In addition to this, the ownership of a home can improve living conditions, which in turn adds to improved physical and mental health for public personnel and their families. The general well-being of the individual may improve because of this. Housing that is both stable and affordable has the potential to contribute to enhanced job happiness and productivity among civilian employees, which is beneficial to the state government.

Additionally, housing that is secure and affordable could contribute to higher job satisfaction.

5.7.2 Details of interviews and interviewees' profiles

This Study decided to present the data relating to the different projects in which the interviewees participated separately, which would help the case analysis. According to ethical considerations, interview participants were assigned labels 19, 20, and so on until R024. These anonymized labels allow the use of quotes without revealing the identities of the individuals. Furthermore, the NATO phonetic alphabet was used as a code, and the nature of participation means the sector to which they belong, making them eligible to be interviewed for the project because they must be directly involved in the existing project. The Table 5.4 below shows the participants involved in Project C.

Table 5.4: Project C – Respondent's Profile

Source: Author (2024)

S/No	Respondent	Code	Nature of Involvement	Job Position	Years of Experience
19	R05	Sierra	Government	DG Land and Housing (DG)	15
20	R06	Tango	Developer	Project Representative (PR)	15
21	R08	Uniform	Contractor	Project Architect (PA)	28
22	R12	Victor	Contractor	Project QS(PQS)	17
20	R13	Whiskey	Client	Project Manager (PM)	12
24	R14	Xray	Subcontractor	CEO	12

5.7.3 Intra-case Analysis

This section presents a comprehensive analysis of the data collected to assess the viability of IDS (Infrastructure Delivery Systems) for Project A. The data was obtained from interviews with Six (6) key stakeholders (Respondents), as listed in Table 5.4, and insights from interviewees representing regulatory agencies. The information

gathered from these sources provided valuable inputs for evaluating the proposed propositions. The analysis aims to critically examine the collected data to determine the feasibility and potential implementation of IDS.

5.7.3.1 Validation of FAHPI components – Project C

To further assess the validity and generalizability of the FAHPI Framework, the study also sought the opinions of interviewees involved in Project C. Remarkably, the interviewees in Project C echoed the sentiments expressed by those in Projects A and B, confirming the representative nature of the FAHPI Framework's elements, challenges, and barriers in the context of effective interorganizational relationships and the successful implementation of Affordable Housing policy initiatives.

The consistent validation of the FAHPI Framework across three distinct projects (A, B, and C) provides compelling evidence for its applicability and relevance to a wider range of Affordable Housing policy initiatives. This consistency in validation strengthens the credibility and robustness of the FAHPI Framework, demonstrating its potential to serve as a valuable tool for understanding and navigating the complexities of interorganizational relationships in the implementation of Affordable Housing policies.

By seeking feedback from interviewees directly involved in Projects A, B, and C, the study validates the FAHPI Framework's ability to capture the essential aspects of interorganizational relationships and the implementation of Affordable Housing policy initiatives across diverse contexts. The interviewees' affirmation of the Framework's elements and their recognition of the challenges and barriers it addresses provide strong evidence for its validity and practical utility in the broader context of Affordable Housing policy implementation.

5.7.3.2 Policy and Legislation of IDS3 Implementation

This theme represented the different policies and legislation that contributed to establishing the affordable housing schemes under consideration in the research study. The main category under this theme was policies contributing to establishing affordable housing schemes.

The formulation and execution of policies play a pivotal role in laying the foundation for affordable housing schemes, ensuring that the benefits of such initiatives reach the intended demographic segments efficiently. Among the spectrum of strategies deployed, the public-private partnership (PPP) policy stands out as a cornerstone, as underscored by its successful implementation in Project C.

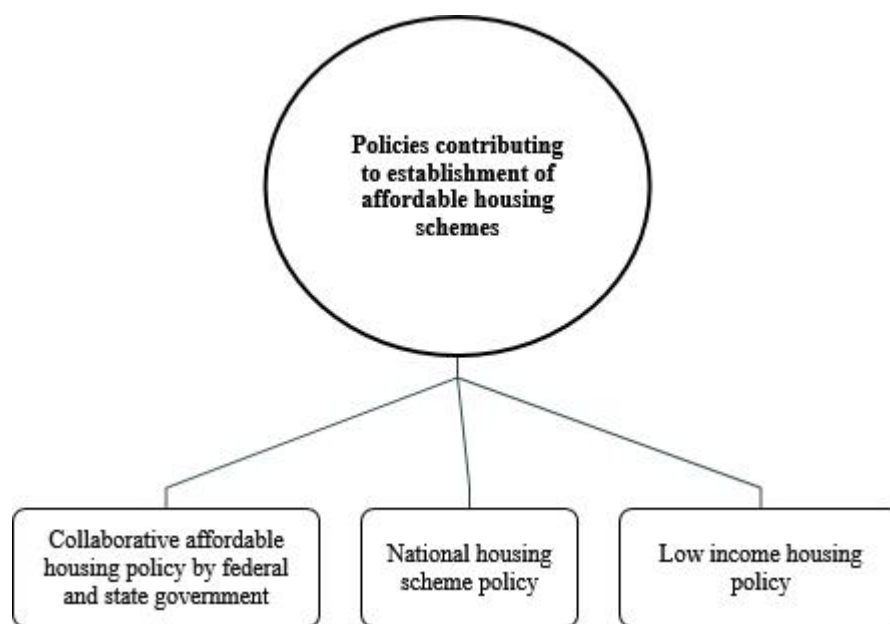


Figure 5.11: Affordable Housing Schemes Policies.

i. Collaborative affordable housing policy by federal and state government

“This project has been sponsored and handled by a Federal parastatal, the Developer and the state government located in Akwa-ibom. R05”

ii. National housing scheme policy

So many policies, I know they have rental control boards and the national housing scheme. P06

iii. **Low-income housing policy**

The policy targeted the low-income earners among the civil servants, which is between level 3-10. It is called the XX low-income housing estate. So, it is under a low scheme of housing form. P08

5.7.3.3 Stakeholders Engagement & Collaboration

This theme represented the different issues related to stakeholders' engagement and collaboration in the implementation of affordable housing projects. The different issues discussed under this theme included: stakeholders in affordable housing projects; role of stakeholders in the implementation of affordable housing projects; factors contributing to stakeholder efficiency in implementing affordable housing projects; stakeholder strategies to ensure accomplishment of affordable housing policies.

The participants identified different stakeholders in affordable housing projects who included:

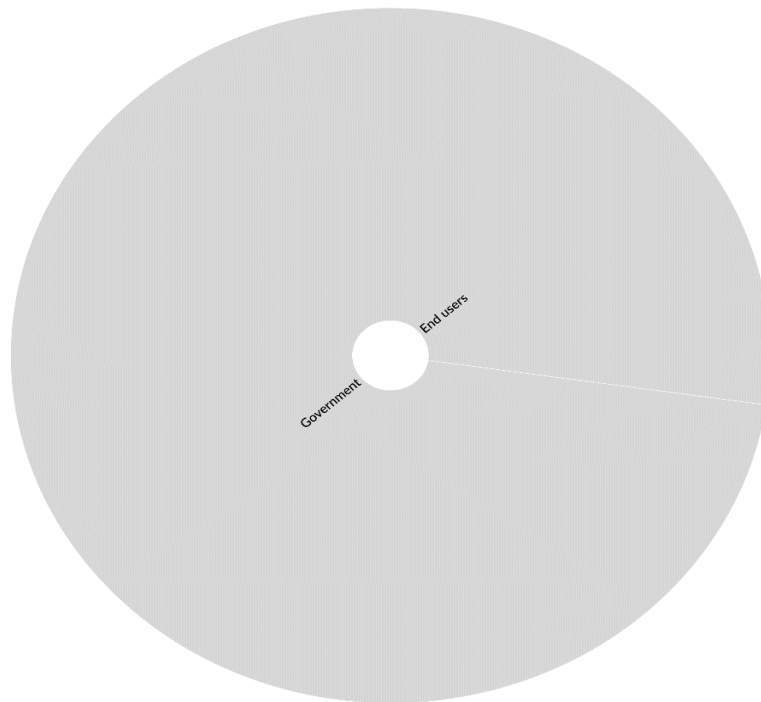


Figure 5.12: Stakeholders in affordable housing projects

i. Government

The interviewee, P05, emphasizes that the government should be a key stakeholder when it comes to affordable housing projects. They argue that providing affordable shelter is one of the essential welfare benefits that citizens should receive from their government.

“The major stakeholders should be the government when you're talking about affordable housing because by the way he's supposed to be one of the welfare benefits that the citizens need to get from the government affordable shelter. P05

This perspective highlights the crucial role that the government is expected to play in ensuring access to affordable housing for its population. By identifying affordable housing as a fundamental welfare need, the interviewee suggests that it is the

government's responsibility to prioritize and actively engage in initiatives that promote the development and availability of affordable housing options.

The stakeholders are the Akwa Ibom state government through the ministry of housing. The state provided the Land almost 40 hectares of land for the project and they are also monitoring to see that the project is going on as it's supposed to. R06

The stakeholders are the government which is primarily the client. P08

The interviewee, R06 and R08 , identifies the Akwa Ibom state government, acting through the Ministry of Housing, as a key stakeholder in the affordable housing project under discussion. The state government's involvement is highlighted in two significant aspects:

“The state government has allocated a substantial plot of land, measuring almost 40 hectares, specifically for the purpose of this affordable housing project. This contribution of land is crucial, as it provides the foundation upon which the project can be developed and demonstrates the government's commitment to supporting the initiative.R06”

The state government, likely through the Ministry of Housing, is actively engaged in overseeing the progress of the project. They are closely monitoring the development to ensure that it is proceeding as planned and in accordance with established guidelines or agreements. This monitoring role underscores the government's ongoing involvement and interest in the successful execution of the affordable housing project.

By emphasizing these two aspects, the interviewee underscores the vital role played by the Akwa Ibom state government as a stakeholder. The government's provision of land and its continuous monitoring of the project's progress demonstrate its active participation and commitment to the realization of affordable housing in the state.

ii. End users

So, the main stakeholder should be the government and the End users. The end users will not have to compulsory and consciously put aside a percentage of his salary and put it away and maybe contribute towards affordable housing.

The civil servants in my opinion are the major stakeholders. R12

5.7.3.4 Role of stakeholders in affordable housing projects implementation

The interviewees highlighted different roles that different stakeholders play in the implementation of affordable housing projects these included:

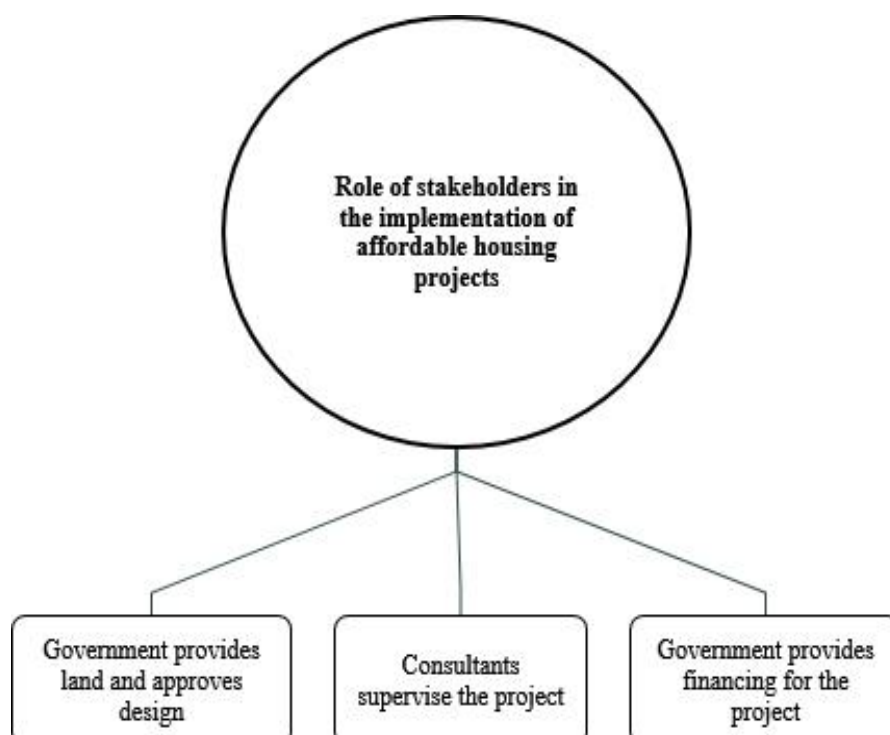


Figure 5.13: Role of stakeholders in affordable housing projects implementation.

i. Government provides land and approves design.

R12

The state provided almost 40 hectares of land for the project, and it is also monitoring to ensure that the project is going on as it's supposed to.

ii. The government provides financing for the project.

R13

The government is the client, and the financier or the sponsor. The financiers have budgeted some money for the project execution, and payment will be released based on milestones while the Client is a signatory to the release of payment.

iii. Consultants supervise the project.

R14

The consultants also give the go-ahead for the payment of vouchers for the contractor as they are the ones supervising the project.

Factors contributing to stakeholder efficiency in implementing affordable housing projects.

Based on the responses provided by the interviewees, several factors contribute to stakeholder efficiency in implementing affordable housing projects:

iv. Commitment and integrity

Both R06 and R12 highlighted commitment and integrity as fundamental attributes. This implies that stakeholders involved in affordable housing projects must demonstrate dedication to the project's objectives and maintain ethical standards throughout the implementation process. Commitment ensures stakeholders remain focused on project goals, while integrity ensures trustworthiness and transparency in all actions.

v. Involvement of Professionals in All Project Areas

R06 mentioned the involvement of professionals across all project areas as a contributing factor to stakeholder efficiency. This implies that having skilled and experienced professionals, including architects, engineers, project managers, and other relevant experts, involved in various project stages can enhance efficiency and effectiveness. Their expertise ensures that tasks are executed competently, leading to better-quality outcomes and smoother project execution.

v. Quick Release of Funds to Contractors:

R12 also noted the importance of promptly releasing funds to contractors. Timely disbursement of funds ensures contractors have the necessary resources to do their work without unnecessary delays. This helps maintain project momentum and prevents disruptions due to financial constraints. Additionally, it fosters trust and positive relationships between stakeholders, encouraging continued collaboration and commitment to project goals.

These factors collectively contribute to stakeholder efficiency in implementing affordable housing projects by promoting dedication, transparency, effective oversight, professional expertise, and timely resource allocation. Integrating these attributes into project management practices can help optimize project performance and enhance the delivery of affordable housing solutions.

5.7.3.5 Stakeholder strategies to ensure accomplishment of affordable housing policies.

Based on the responses provided by the interviewees, various strategies have been implemented by different stakeholders to ensure the accomplishment of affordable housing policies. These strategies include:

Relying on a Monitoring Team:

R05 and R13 highlighted the importance of monitoring teams to oversee affordable housing projects. These teams, organized by the state government and the client (which could be government or private entities), conduct regular site visits to monitor progress and ensure compliance with project requirements. This frequent monitoring helps identify issues early on, allowing for timely intervention and corrective actions to keep the project on track.

Relying on Consultants to Supervise Projects:

R05 and R13 also mentioned the involvement of consultants, such as independent project managers (IPMs) and financiers' teams of consultants, in supervising affordable housing projects. These consultants provide expertise and oversight, assess project progress, identify potential risks, and ensure that resources are used efficiently. Their involvement helps maintain project quality and adherence to standards throughout the implementation process.

Preventing Misappropriation of Funds:

R12 highlighted the importance of preventing misappropriation and mismanagement of funds allocated for affordable housing projects. This suggests that ensuring financial accountability and transparency is crucial for project success. Implementing robust

financial controls, conducting regular audits, and promoting accountability among project stakeholders can help prevent fund misuse and ensure that resources are effectively utilized for their intended purpose.

Overall, these strategies aim to enhance project oversight, ensure quality control, and promote accountability in implementing affordable housing policies. By leveraging monitoring teams, consultants, and financial controls, stakeholders can mitigate risks, address challenges proactively, and more effectively achieve the objectives of affordable housing initiatives.

5.7.3.6 Challenges versus Barriers in Affordable Housing

This theme represented the challenges and barriers to implementing affordable housing projects. The different issues highlighted by the interviewees under this theme included the root cause of the failure of affordable housing projects, Challenges affecting the implementation of affordable housing projects, and the Impact of challenges on the overall success of affordable housing projects.

Root cause of failure of affordable house projects

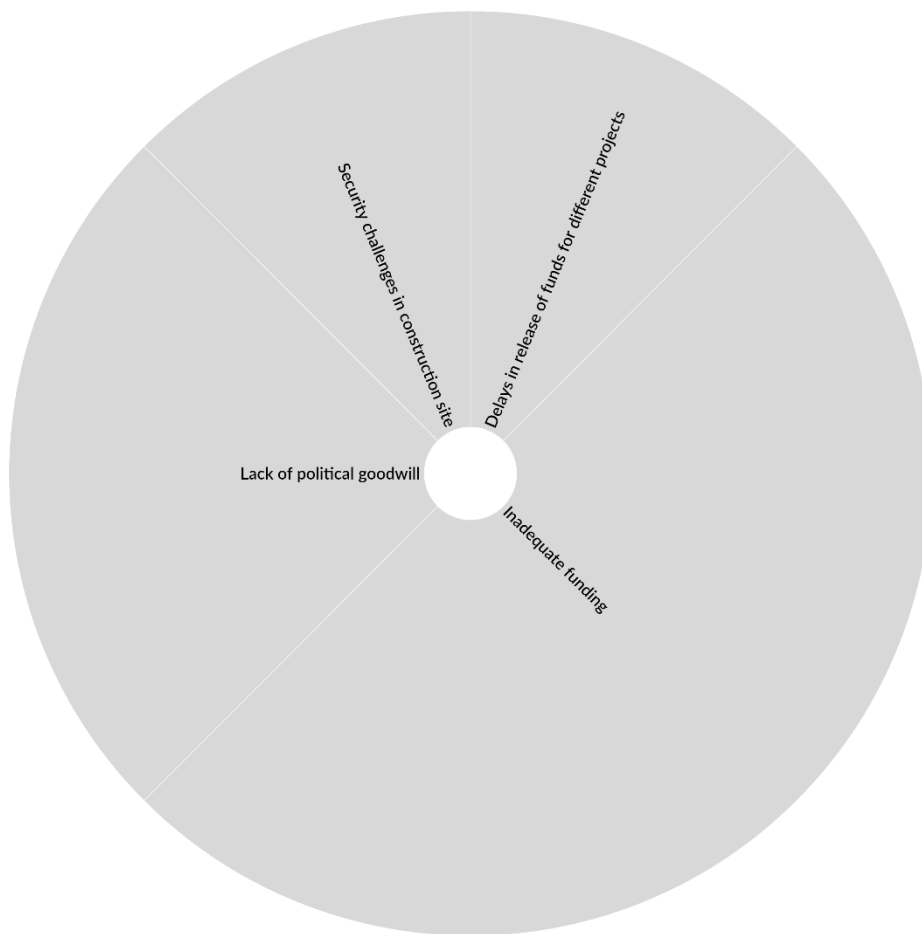
This category represented what the interviewees viewed as the root causes of failure in affordable house projects. One interviewee identified corruption in government agencies as the main root cause of failure in affordable housing projects.

R14

“The supervising ministry, which is a government representative, comprises most of the contractors due to greed and corruption; they usually compromise the standard of selecting the contractors because they want to put the contractors they can control and for money.”

5.7.3.7 Challenges affecting the implementation of affordable housing projects.

This category represented the different challenges encountered by the interviewees in implementing affordable housing policies. These included:



i. Inadequate funding

R13

Funding issues have emerged as significant bottlenecks in project leadership, profoundly impacting its progress. Primarily, the challenge stemmed from financing the project, which had been in the pipeline since 2019 or 2020. Although officially

commencing in 2022, the main contractor had already mobilized to the site beforehand. However, by 2023, inflation had escalated substantially, rendering the initial project cost estimates outdated. For example, if the quantity surveyor had initially estimated the cost of each duplex at ₦10 million when fuel prices were ₦185 per litre, the subsequent reduction in fuel prices to ₦165 per liter exacerbated the disparity, stalling project advancement.

Consequently, as part of a team of consultants, we have devised a resolution strategy. Considering current market conditions, the client has been advised to revisit the Bill of Quantities (BOQ) for reevaluation. This reassessment aims to determine whether additional funding is required to maintain project momentum or if adjustments to the scope of construction are necessary. Addressing funding inadequacies is a pivotal concern requiring immediate attention to ensure project viability and successful implementation.

ii. Delays in release of funds for different projects

R13

We faced a financial challenge because the project funds didn't arrive on time, slowing down our progress.

Lack of political Goodwill

R13

I would attribute this to political reasons. Upon reviewing the Akwa-Ibom state budget, you'll notice allocations set aside for affordable housing for civil servants and retirees. However, despite these allocations, implementation rarely occurs due to governmental failure to execute what the budget has already outlined. Instead, the allocated funds are often redirected to other priorities, indicating a lack of government commitment to funding these projects. The absence of political will to prioritize affordable housing is evident in this pattern of fund diversion.

iii. Security challenges in construction site

R05

“Safety is another important challenge. The cost of affordable buildings is raised because if a contractor wants to build in the South-south today, he must pay for safety and security. Some communities are hostile in their local way. So, you need armed military personnel to escort professionals to the site each day.”

R06 also added that.

Additionally, there were incidents of vandalism perpetrated by certain individuals from the community.

5.7.3.8 Impact of challenges on the overall success of affordable housing projects

The interviewees offered diverse perspectives on how challenges affect the success of affordable housing projects.

One common concern raised was the impact of delays in project delivery. R12 emphasized that the delayed release of funds directly contributes to project delays. Similarly, Respondents 13 and R05 noted that the project, originally slated to be completed within six months to a year, has been significantly delayed due to various factors.

5.7.3.9 Monitoring and Control for Affordable Housing In Project C

This theme encompassed all aspects concerning monitoring and control in implementing affordable housing projects. Its subcategories included the team responsible for monitoring and control (M&C) of affordable housing projects, criteria used to select the M&C team, the composition of the M&C team, challenges faced by

the M&C team during affordable housing projects, and various types of conflicts among M&C team members.

4.1 The monitoring and control (M&C) team is in charge of implementing affordable housing projects.

According to the interviewees, affordable housing projects were implemented by a monitoring team affiliated with the state housing ministry.



R08 remarked that while the government attempts to provide supervision, it is often insufficient.

R12 affirmed the involvement of the state Ministry of Housing's monitoring team and independent project managers serving as consultants for the project.

Additionally, R13 emphasized the importance of having a project manager within the monitoring and control team for successful project implementation. According to R13,

a project manager plays a crucial role in ensuring project success by overseeing aspects such as timing, cost, and quality, with various professionals working under their guidance to ensure project completion.

One of the interviewees also indicated that independent project managers were the monitoring and control (M&C) team in charge of implementing affordable housing projects.

“The project consultants are independent project managers. They come in weekly to check the project's progress, and we discuss it during the monthly progress meeting. So yes, we have a monitoring team in place.” R13

4.2 Criteria for selection of the M&C team

This category represented the interviewees' views on the criteria utilized to select the monitoring and control team.

Qualifications and experience were the most highlighted criteria for the selection of the monitoring team by two interviewees.

R05

Their qualifications and experience are the key factors that you should consider when selecting the monitoring and control team.

R 06

I believe before carrying out a project of this magnitude, the sponsors would have put in place certain criteria for selecting a monitoring team, or else we would not have such qualified professionals here from the Nigerian builders to supervise and monitor the project.

Other identified criteria for the selection of the monitoring and control team included:

The capacity of the team to handle the project at hand.

“Then, there is the capacity of the professional's deliverables, which depends on the project size. R14”

This respondent emphasizes the importance of considering the professionals' capacity to deliver the project. They suggest that the effectiveness of the team's output depends on the project's scale and complexity. R14 appears to be focused on assessing the capabilities and resources of the professionals tasked with project implementation.

Previous performance

R05

Once the financier has been chosen, they oversee the team members, evaluating their past performance.

According to the interviewees, the project manager (PM) was one of the most important members of the monitoring and control team.

“Yes, that's the reason why you need a project manager. I think a project that doesn't have a project manager is designed to fail from the beginning. So, the monitoring should have a project management system where a project manager will investigate the timing and cost and the quality of the project. R13”

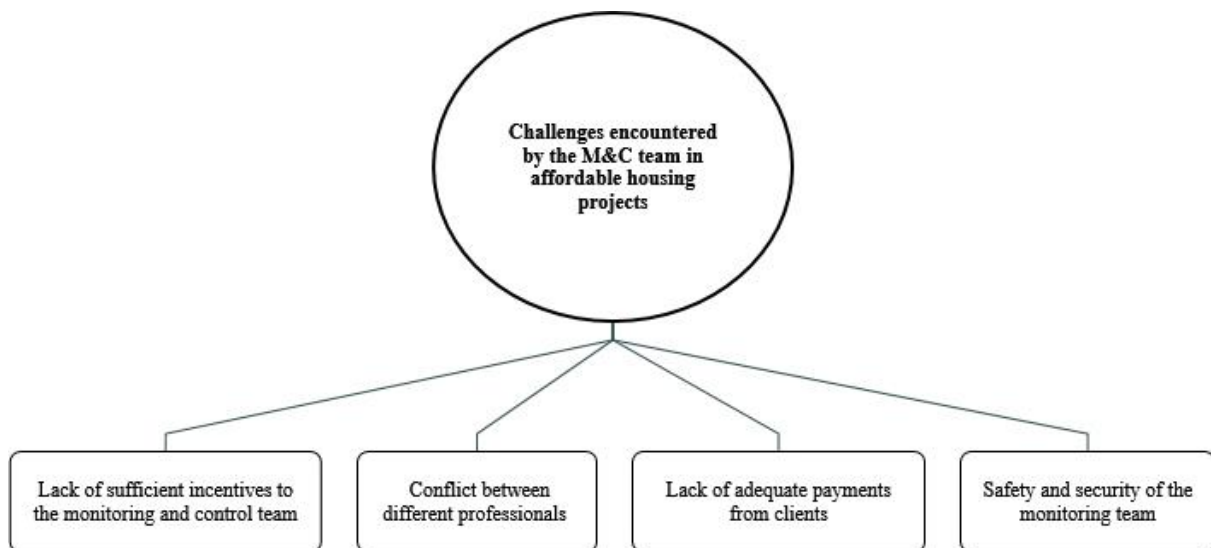
One interviewee also identified civil engineers as important monitoring and control team members.

R08

Civil engineers and a representative from the government

4.4 Challenges encountered by the M&C team in affordable housing projects

This category represented the challenges encountered by the monitoring and control team in affordable housing projects, as identified by the interviewees.



An identified challenge encountered by the M&C team in affordable housing projects was the lack of sufficient incentives for the monitoring and control team.

i.Lack of adequate payments from clients

R14

Payment is also a challenge. When the Client does not pay the professionals, it could make them unbound from their responsibilities on the project.

R12

Payment is also a challenge. When the Client does not pay the professionals, it could make them unbound from their responsibilities on the project.

R13

The monitoring and control team's challenge was that incentives were not given to them to monitor the project.

Other highlighted challenges encountered by the M&C team in affordable housing projects, according to the participants, included:

Conflict between different professionals.

R14

I often see the conflict between the architects and engineers regarding the lead consultant.

Safety and security of the monitoring team

R13

Safety is another important challenge. The cost of affordable buildings is raised because if a contractor wants to build in the South today, he has to pay for safety and security. Some communities are hostile in their local way. So, armed military personnel must escort professionals daily to the site. I think these are the challenges faced by the monitoring team.

5.7.3.10 Finance and Resources for Project C

This theme represented the different financial and general resources identified by the interviewees as important to the implementation of affordable housing projects. The categories under this theme included. Views on the availability and affordability of public-private partnership housing projects in the south-south region.

5.1 Views on the availability and affordability of public-private partnership housing projects in the south-south region.

The interviewees provided different views on the availability and affordability of public-private partnership housing projects in Akwa-Ibom of the south-south region.

One of the interviewees indicated that public and private. Partnership housing projects were unaffordable for the average population.

R14

"In Nigeria, the term 'affordable housing' often doesn't match reality, posing a significant hurdle. Despite being labeled as accessible, these homes remain out of reach for many due to the nation's low-income levels. For instance, a two-bedroom flat earmarked at ~~N2~~ to ~~N3~~ million naira for a grade level 8 civil servant might seem feasible on paper. Yet, factors like limited income mean acquiring such a home is a dream far

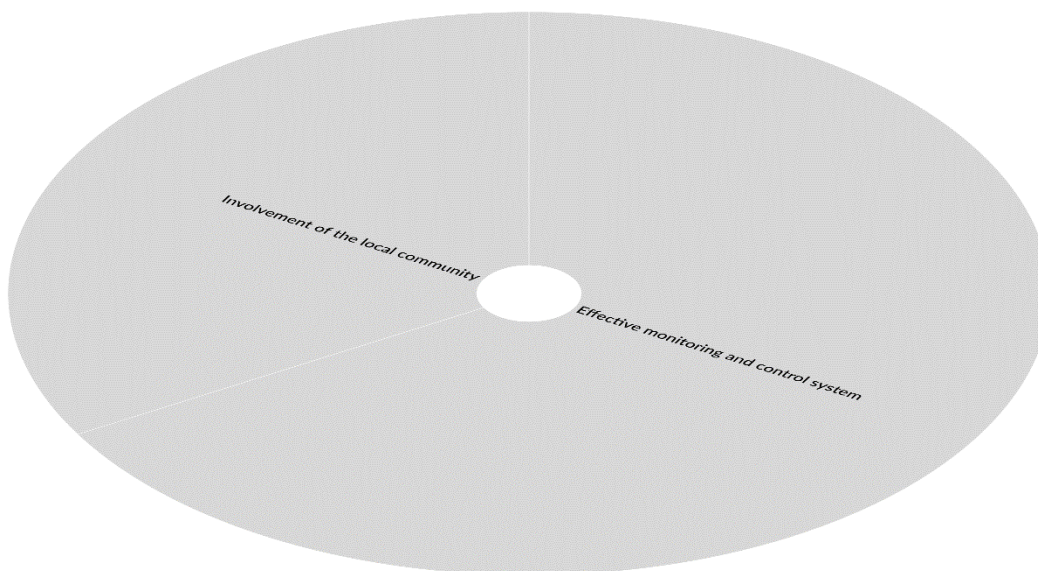
from reach. Imagine a scenario where it takes up to 15 years for someone earning ₦100,000 monthly to afford such a property. From my experience in Nigeria's construction sector, the cost of constructing a modest two-bedroom house ranges from ₦4 to ₦5 million naira. This brings us to a pressing question: Are these homes genuinely affordable and meant for those earning less? We must address this disparity and work towards truly accessible housing solutions."

Success & Drivers for IDS Implementation Affordable Housing

This theme included factors that could be considered successes or drivers of affordable housing projects. The main categories contributing to this theme included Factors contributing to the success of affordable housing projects and assessment of government performance in implementing affordable housing policies in the south-south.

Factors contributing to the success of affordable housing projects.

The interviewees highlighted different factors contributing to the success of affordable housing projects.



Two participants also identified an effective monitoring and control system as a factor contributing to the success of affordable housing projects.

R08

I will say a good monitoring and control system should be implemented to supervise the project effectively.

R06

The success factors that have enhanced the accomplishment of the project till date is consistent supervision despite the delay in delivery and proper documentation of activities.

Other factors that contributed to the success of affordable housing projects that the interviewees highlighted included:

Involvement of the local community

R14

The success factor, I think, has enhanced the accomplishment of this project so far, as the youth from the community who are involved in the project can learn a skill or two. The project gives people from the community the opportunity to get involved in the project, and they are happy about it.

Assessment of government performance in the implementation of affordable housing policies in the south-south

The interviewees presented their subjective assessment of government performance in implementing affordable housing policies in the south-south. Most of the participants viewed the government's performance in implementing affordable housing policies in south-south as poor.

R14

It's very poor

5.7.4 Summary of Project C

The "Project C" document details the multifaceted approach to affordable housing policy implementation, emphasizing policy formulation, stakeholder engagement, challenges encountered, and success factors. Here's a summarized analysis across key themes:

1. Policies Contributing to Affordable Housing- Policy and Legislation of IDS3 Implementation

- **Public-Private Partnerships (PPP):** Highlighted as a cornerstone for establishing affordable housing, involving collaborations between federal parastatals, state governments, and developers, specifically noted in Akwa-Ibom.
- **National Housing Scheme Policy:** Mentioned alongside rental control boards to facilitate housing access.
- **Low-Income Housing Policy:** Targets civil servants in levels 3-10, exemplified by the "XX low-income housing estate."

2. Stakeholder Engagement & Collaboration

- **Government's Role:** Identified as a primary stakeholder, responsible for providing land, financing, and overseeing project implementation. Emphasis on the government's obligation to ensure affordable housing as a fundamental welfare benefit.
- **End Users:** Civil servants and low-income earners are highlighted as major stakeholders, suggesting their active participation in financing housing through savings.

2. Challenges and Barriers

- **Corruption** is a significant root cause of failure in affordable housing projects.
- **Inadequate Funding and Delays:** Financial challenges and inflation have rendered initial project cost estimates obsolete, requiring budget reassessments.
- **Lack of Political Will:** Highlighted through budget allocations for housing that are not implemented, reflecting a broader issue of fund diversion.

- **Security Concerns:** The need for safety measures due to local hostilities impacting construction costs.

3. Monitoring and Control

- **Monitoring Teams:** Comprised of government representatives and independent project managers, these teams ensure adherence to project timelines, costs, and quality standards.
- **Challenges for Monitoring Teams** Include inadequate compensation, professional conflicts, and safety and security concerns.

4. Finance and Resources

- **Public-Private Partnership (PPP) Affordability:** There's skepticism about the true affordability of PPP housing projects, with costs often exceeding what low-income earners can realistically afford.

5. Success & Implementation Drivers

- **Effective Monitoring and Control:** Identified as crucial for project success, alongside the involvement of local communities which fosters a sense of ownership and participation.
- **Government Performance:** Generally assessed as poor in implementing affordable housing policies, indicating a need for enhanced commitment and efficiency.

In summary, while "Project C" underscores the critical role of policies, stakeholder collaboration, and monitoring in facilitating affordable housing, it also highlights significant challenges like corruption, funding inadequacies, and the need for genuine affordability. Addressing these issues is essential for the success and sustainability of affordable housing projects.

5.8 PART 2- Cross Case Analysis

5.8.1 Part Two-Overview

Compiling Data for a multiple case study, by first examining the result of each (Intra-case) individual case study and only then observing the pattern of result across the case studies: stronger synthesis would have sufficient data to entertain plausible rival cross case pattern.

5.8.2 Cross case Analysis

After interviewing Twenty-Four (24) professionals who had been previously involved in affordable housing projects, from three (3) different states of the south-south regions of Nigeria, the researcher decided to use the Thematic analysis (TA) approach to analyse the qualitative data that was collected. The reflexive thematic analysis process is a six-step data analysis process popularized by Braun and Clarke (2019). This is shown in Figure 5.14. The reflexive thematic analysis approach is a majorly inductive approach to analysing qualitative data which includes coming up with codes and trying to find shared meanings and patterns in the codes to develop themes. According to Braun & Clarke, (2019), the six steps of reflexive thematic analysis include getting familiar with the qualitative data, developing the initial codes, developing themes from the initial codes, reviewing and refining the themes, defining themes and finally coming up with the report.

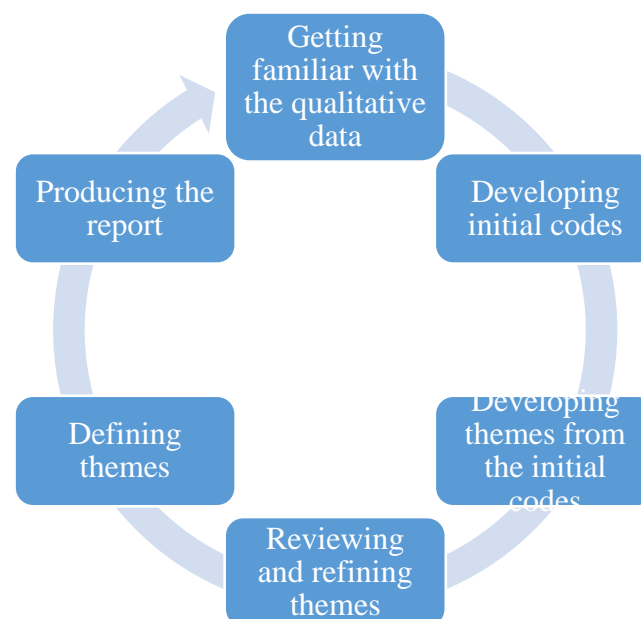


Figure 5.14: Six step of the reflexive thematic analysis process.

(Braun & Clarke, 2019)

Following RTA, the first step that the researcher took was to transcribe all the interviews that had previously been recorded. During the process of transcription, the researcher was able to familiarize themselves adequately with the qualitative data. The researcher also took time to cross check the transcripts against the recordings and to correct any mistakes that could have occurred during the transcription process. All these activities aided in familiarizing with the qualitative data (Campbell et al., 2021).

The second step of reflexive thematic analysis is coming up with the initial codes (Byrne, 2021). Following this step of RTA, the researcher imported the transcribed interviews into NVivo. NVivo has gained credibility among researchers as an effective tool to aid in qualitative data analysis. Although NVivo does not help in the analysis of qualitative data it plays a significant role in helping to track the manually generated codes and themes. According to Campbell et al., (2021), codes are descriptive or interpretive labels of specific information that is relevant to research objectives. The Table 5.5 shows a sample of some initial codes generated in NVivo.

Table 5.5: sample Initial Codes Generated in NVivo

Source: Author, 2024

INITIAL CODES	FILES	CODING REFERENCE
Effective communication among stakeholders	2	2
Effective monitoring and control system	4	4
Involvement of qualified contractors	2	2
Involvement of the local community	2	2
Proper planning	2	2
Provision of security in construction sites	2	2
Provision of sufficient funds	4	4
Provision of sufficient land	2	2
Enhanced accessibility of construction materials		
Enhanced cooperation between different stakeholders	2	2
Hiring a team of professionals to manage the projects with minimal government interference	2	2
Implementation of good monitoring and control systems to effectively supervise the projects	2	2
Improving accessibility of mortgage loans to the larger population including those who do not work in government	2	2
Involvement of government in providing land to the private sector to construct affordable houses	2	2
Involvement of government in providing sufficient infrastructure to support affordable housing developments	2	2
Limiting the link between the contractor and the client	2	2
Proper structuring of contract agreements	2	2

The development of themes from the initial codes is the third step of reflexive thematic analysis (Braun & Clarke, 2019). In this step, the researcher first revised the initial codes and then took time to observe any shared meaning and similarities between the codes. Codes with shared meanings were grouped together under a representative theme. The fourth step of reflexive thematic analysis is reviewing and refining themes (Braun et al., 2019). The researcher took time to review the initial themes which included merging themes that had shared meanings and deleting weaker themes. This step was then followed by the fifth step of reflective thematic analysis which is defining themes (Byrne, 2021). This will include providing a clear description of each of the emergent themes. The Table 5.6 provides a description of each of the themes that emerged in this study.

Table 5.6: Description of emerging themes from this study

Source: Author, 2024

Name	Description
1. Policy & legislation	This theme represented the different policies and legislation that contributed to the establishment of the affordable housing schemes under consideration in the research study
2. Stakeholders Engagement & Collaboration	This theme represented the different issues related to stakeholders' engagement and collaboration in the implementation of affordable housing projects.
3. Challenges and barriers	This theme represented the different challenges and barriers related to the implementation of affordable housing projects.
4. Monitoring & Control System	This theme included all issues related to monitoring and control in the implementation of affordable housing projects
5. Finance & Resources	This theme represented the different financial and general resources identified by the interviewees as important for implementing affordable housing projects.
6. Success & Drivers	This theme included factors that could be considered as successes or drivers of affordable housing projects.
7. Recommendations	This theme included the various recommendations provided by the interviewees to enhance the implementation of affordable housing projects.

The final step of reflexive analysis is coming up with the data analysis report (Campbell et al., 2021). The data analysis report is a cohesive narrative of findings which is supported by themes, codes, and interview excerpts.

5.9 Findings

Table 5.7 summarizing the relationship between Projects A, B, and C across the five major themes:

Table 5.7: Summary of the Relationship Across the Three Projects (A, B & C)

Source: Author, 2024

Theme	Project A	Project B	Project C
Policy and Legislation of IDS Implementation	Public-private partnership (PPP) policies significantly supported affordable housing, highlighting the effectiveness of joint efforts between government and private entities.	PPP policy was identified as crucial; government policies created a favourable environment, but inconsistency was a major project failure cause.	Emphasis on PPPs, highlighting collaborations between federal parastatals, state governments, and developers, particularly in Akwa-Ibom.
Stakeholders Engagement & Collaboration	Key stakeholders included government agencies, end-users, and financial institutions, with a focus on a multi-stakeholder approach.	Identified stakeholders included the government, financial institutions, and professionals (e.g., project managers, engineers). Effective communication and leadership were vital.	Government seen as a primary stakeholder, with a significant role in providing land and financing. End-users (civil servants, low-income earners) actively participate in financing.
Challenges and Barriers to Affordable Housing	Identified challenges included financial constraints, reliance on subcontracting, and delays in establishing an SPV. Other barriers included environmental factors and political challenges.	Root causes of failure included lack of political goodwill, inadequate finance, inconsistent policy, high material costs, and excess taxation.	Corruption, inadequate funding, lack of political will, and security concerns were major challenges.
Monitoring and Control for Affordable Housing	The M&C team consisted of external consultants and government representatives, with criteria including	A team led by the project manager, including various professionals, faced challenges like conflicts and bureaucracies.	Monitoring teams comprised of government representatives and independent project managers ensure project adherence but face compensation

	professional experience.		and safety challenges.
Finance and Resources	Mixed views on PPP housing affordability; high development costs made some projects unaffordable.	Challenges included inadequate funding and high cost of building materials.	PPP affordability questioned; projects often exceed what low-income earners can afford.
Success & Drivers	Government's performance in implementing affordable housing policies was viewed as poor by most participants, with cited inconsistencies and lack of basic amenities. Only one participant noted the government's positive role in providing land, necessary approvals, and stakeholder collaboration.	Factors contributing to the success included sufficient funding, effective communication among stakeholders, involvement of qualified contractors, proper planning, security at construction sites, and provision of sufficient land.	Effective monitoring and control were identified as crucial for project success, alongside the involvement of local communities which foster community ownership and participation. Government performance was generally assessed as poor, indicating a need for enhanced commitment and efficiency.

5.9.1 Policy and Legislation

While Projects A, B, and C recognize the foundational role of PPPs and the essential nature of supportive government policies in successfully implementing affordable housing initiatives, they diverge in their assessments of policy consistency and effectiveness. Project A presents an optimistic view of policy support and collaboration. Project B raises concerns about policy consistency and practical application. Project C details a targeted approach to policy, highlighting specific schemes and the collaborative efforts between different government layers. These observations suggest a consensus on the importance of policy frameworks for affordable housing while indicating varied experiences and challenges in policy execution across the projects.

5.9.2 Challenges and Barriers to Affordable Housing

Projects A, B, and C all face the universal challenge of financial constraints, they each encounter unique barriers that reflect the specific contexts and environments in which they are situated. Project A's challenges are rooted in management practices and environmental and political variables, highlighting the complexity of project execution. Project B emphasizes the importance of political support and the administrative hurdles that can impede progress, while Project C sheds light on integrity issues and security concerns, pointing to the broader societal challenges impacting affordable housing development.

These insights reveal the multifaceted nature of affordable housing projects and underscore the need for tailored strategies that address both common financial hurdles and project-specific challenges to ensure successful implementation.

5.9.3 The monitoring and control mechanisms

Across Projects A, B, and C reveal a consistent belief in the necessity of structured oversight involving professionals from various backgrounds and government representatives. However, the specific challenges faced and the criteria for team composition vary, reflecting differences in project environments and priorities. Project A's approach is noted for its political considerations and the inclusion of external consultants, highlighting a balance between technical expertise and political navigation. Project B focuses on its team's technical and professional qualifications, facing internal and administrative challenges that underscore the complexity of project oversight. Project C points to the operational and safety challenges faced by monitoring teams, emphasizing the importance of community involvement and effective oversight as pillars of project success.

These findings underscore the critical role of monitoring and control in affordable housing projects, pointing to the need for both technical expertise and effective management of team dynamics and project stakeholder relationships to overcome challenges and ensure project objectives are met.

5.9.4 Finance and resources

Finance and resources play a crucial role in the development and success of affordable housing projects, as evidenced by Projects A, B, and C. While all three projects grapple with the fundamental challenges of funding adequacy and ensuring affordability, there are distinct nuances in their experiences and perspectives. Project A reveals a discrepancy in perceptions of affordability within PPP frameworks, indicating the need for more inclusive financial models. Project B's challenges with funding and material costs highlight the broader issue of financial sustainability in affordable housing development. Meanwhile, Project C's skepticism towards PPP affordability underscores the critical need for financial models that genuinely meet the needs of low-income populations.

These insights collectively highlight the importance of innovative financing solutions, effective cost management, and targeted subsidies or incentives to bridge the gap between project costs and affordability. Addressing these financial challenges is essential for advancing the goal of providing accessible and affordable housing to those in need.

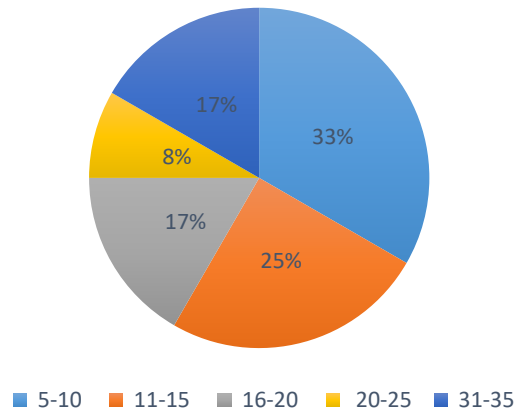
5.9.5 Success & Drivers

Success and Drivers highlights the critical success factors and drivers identified within each project. While Projects B and C identify specific factors contributing to success, such as stakeholder communication and community involvement, Project A presents a more critical view of government performance, suggesting areas for improvement. These insights can guide future affordable housing projects towards more effective implementation and greater success.

Participant Identification

Experience in construction industry.

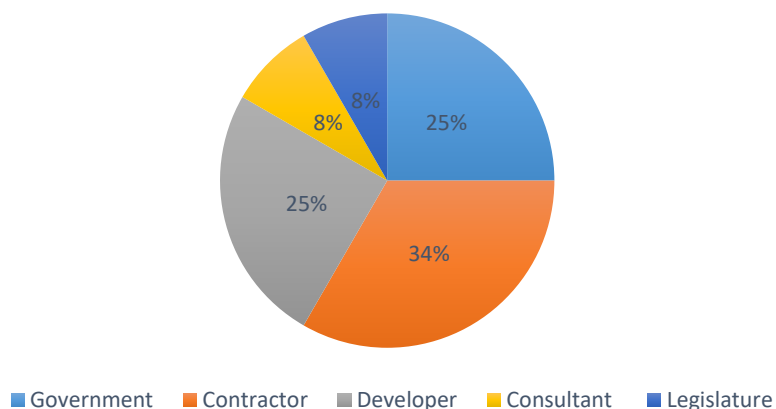
Experience in the construction industry



Most of the interviewees representing 33% had between 5 to 10 years of experience in the construction industry. On the other hand, 25% of the interviewees had between 11 to 15 years of experience in the construction industry. 17% of the interviewees had between 16 to 20 years of experience. 8% of the interviewees had between 20 to 25 years of experience while another 17% of the interviewees had between 31 to 35 years of experience in the construction industry.

Nature of business

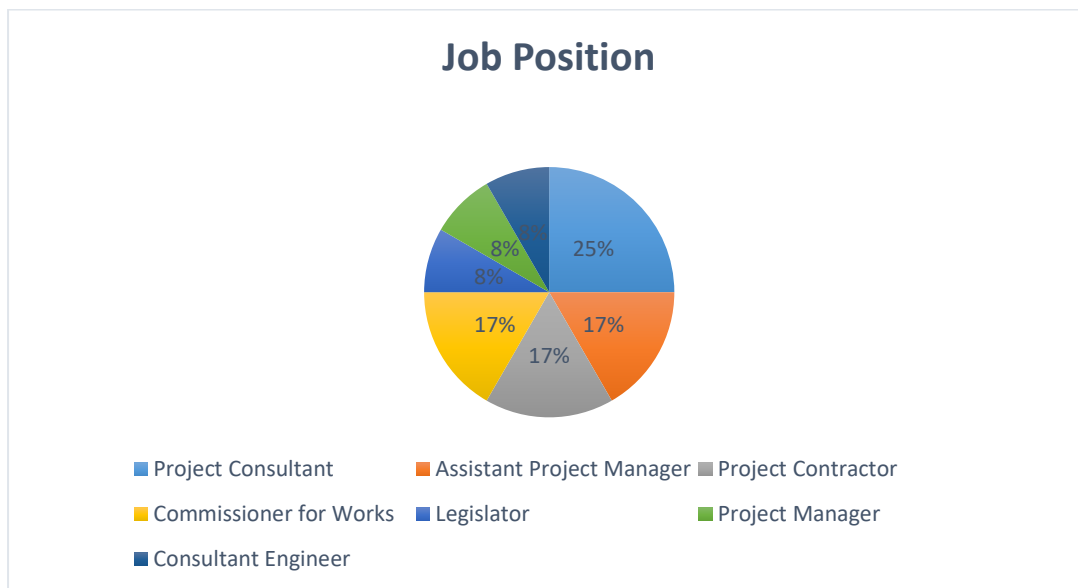
Nature of business



The interviewees played different roles in the construction industry. 34% of the interviewees were contractors. On the other hand, 25% were developers with another

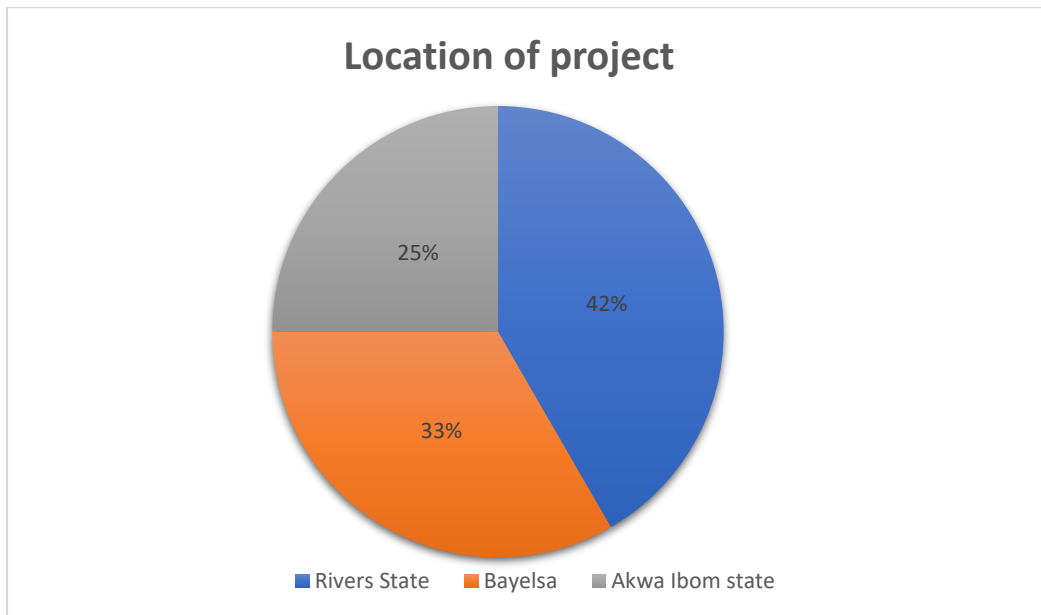
25% working with the government. 8% of the interviewees were consultants while another 8% were legislators.

Job Position



Most of the interviewees were project consultants representing 25% of the total. 17% of the interviewees were assistant project managers while another 17% of the interviewees were project contractors. Another 17% of the interviewees were commissioners for works. Each of 8% of the interviewees were legislators, project managers, and consultant engineers.

Location of project



42% of the interviewees had been involved with affordable housing projects in Rivers State while 33% had been involved in projects in Bayelsa. The remaining 25% had worked on projects in Akwa Ibom state.

5.10 Analytical Generalization of Cross-case

In this study, the researchers utilized analytic generalizations to extrapolate findings from multiple case studies and develop broader theoretical insights. This method, emphasized by Eisenhardt (1989) and Meyer (2001), is crucial for theory development or refinement. By conducting cross-case analysis of interviews across various Integrated Delivery Systems (IDSs), the researchers identified patterns that informed the development or adjustment of theories (Yin, 2018).

The generalizations derived from this study were grounded in observed patterns both within and across the case studies, aligning with the initial propositions that guided the cross-case analysis (Eisenhardt & Graebner, 2007). This approach not only validates the research's credibility but also ensures that its findings make a meaningful contribution to the existing body of knowledge (Stake, 2006).

The use of analytic generalizations in this study demonstrates their value in enriching theoretical understandings based on specific case study observations (Ridder, 2017). By employing this method, the researchers were able to extend the insights gained from individual case studies to develop more comprehensive and robust theories applicable. Propositions are essential components of research that provide a structured

approach to examining the relationships between key variables and concepts (Yin, 2014). They are tentative statements or hypotheses derived from research questions, literature review, and theoretical framework, which guide the research process and focus the study on specific areas of interest (Creswell & Creswell, 2018). Propositions are tested through the collection and analysis of empirical data, allowing researchers to investigate the validity of their assumptions and generate new knowledge (Saunders et al., 2019).

In this study, several propositions have been developed to explore the implementation of infrastructure delivery systems (IDS) for affordable housing projects in Nigeria's south-south region. These propositions examine the relationships between factors such as stakeholder involvement, project location, contract strategy, and client organization structure, and their impact on the success of affordable housing initiatives (Ibem & Aduwo, 2013; Olotuah & Bobadoye, 2009). By formulating and testing these propositions, the research aims to contribute to a deeper understanding of the challenges and opportunities associated with implementing IDS in the context of affordable housing, while also addressing key issues and concerns facing policymakers, practitioners, and communities involved in affordable housing development (Makinde, 2014).

The propositions are grounded in the existing literature on IDS, affordable housing, and policy implementation, as well as the researcher's understanding of the specific context of Nigeria's south-south region (Ibem et al., 2015). Through the systematic investigation of these propositions, the study seeks to generate valuable insights and recommendations that can inform future policy and practice in the field of affordable housing and infrastructure delivery (Ademiluyi, 2010). The findings may also contribute to the broader discourse on sustainable urban development, social equity, and the role of public-private partnerships in addressing housing challenges in developing countries (Ibem, 2011).

5.10.1.1 *First-level Analysis Similarities of Key Components*

Proposition – The effective implementation of affordable housing policies by stakeholders is significantly hindered by a combination of factors, including limited financial resources, bureaucratic inefficiencies, and challenges in land acquisition.

Sub core element – Proposition Challenges in the implementation of policies and reforms.

Based on the findings from Projects A, B, and C, several common challenges emerge in implementing affordable housing policies in the south-south region of Nigeria. These similarities highlight the systemic issues that hinder the successful execution of these initiatives across different states.

Table 5.8: Similarities of key components

Source: Author, 2024

Challenges in the implementation of policies and reforms.	IDS1	IDS2	IDS3
Financial Constraints and Inadequate Funding	✓	✓	✓
Inconsistent Government Policies and Lack of Political Will	✓	✓	✓
High Cost of Construction Materials			✓
Corruption and Mismanagement	✓	✓	✓
Delays and Bureaucratic Inefficiencies	✓	✓	✓

5.10.1.2 Financial Constraints and Inadequate Funding

One of the most prominent challenges shared by all three projects is the lack of adequate financial resources. In Project A, financial constraints were identified as the primary obstacle, exacerbated by excessive reliance on subcontracting. Similarly, Project B cited inadequate finance as a major root cause of project failure, while Project C highlighted how financial challenges and inflation rendered initial cost estimates obsolete, necessitating budget reassessments. This common thread underscores the critical need for robust financial planning and sufficient funding mechanisms to ensure the smooth implementation of affordable housing policies.

5.10.1.3 *Inconsistent Government Policies and Lack of Political Will*

Another recurring challenge across the projects is the inconsistency in government policies and the lack of strong political will to support affordable housing initiatives. In Project B, inconsistent government policies were seen as a significant cause of project failure, while Project C mentioned the lack of political will, as evidenced by the non-implementation of housing budget allocations and the diversion of funds. This highlights the importance of stable, supportive government policies and a genuine commitment from political leaders to prioritize and facilitate affordable housing development.

5.10.1.4 *High Cost of Construction Materials*

The high cost of construction materials emerged as a common barrier in both Projects B and C. This challenge directly impacts the affordability of housing projects, as the increased costs are often passed on to the end-users, making the houses less accessible to the target low-income population. Addressing this issue requires strategies to control material costs, such as encouraging local production, streamlining supply chains, and exploring alternative, cost-effective building technologies.

5.10.1.5 *Corruption and Mismanagement*

Corruption was explicitly mentioned as a significant root cause of failure in Project C, while Project A alluded to issues of greed and disagreements between shareholders. These challenges underscore the need for strong governance, transparency, and accountability measures in the implementation of affordable housing policies. Effective monitoring and control systems, as well as the involvement of independent oversight bodies, can help mitigate corruption and ensure the proper use of resources.

5.10.1.6 *Delays and Bureaucratic Inefficiencies*

Delays in project delivery and bureaucratic inefficiencies were common challenges encountered across the projects. In Project A, delays in establishing a special-purpose vehicle (SPV) were identified as a key factor causing implementation challenges. Project B mentioned delays in project delivery as one of the main challenges, while Project C highlighted bureaucratic conflicts and professional disputes within monitoring teams. Streamlining administrative processes, clearly defining roles and

responsibilities, and fostering effective stakeholder collaboration can help overcome these delays and inefficiencies.

In conclusion, the similarities in challenges faced by Projects A, B, and C in implementing affordable housing policies in the south-south region of Nigeria reveal the need for a comprehensive, multi-faceted approach to address these issues. Policymakers and stakeholders must focus on securing adequate funding, ensuring policy consistency, controlling construction costs, combating corruption, and improving efficiency in project delivery. By recognising and addressing these common challenges, the region can work towards more successful and sustainable affordable housing initiatives that effectively serve the needs of the target population.

Government bodies, local communities, private sector developers, and international donors are the key stakeholders in the delivery of affordable housing schemes in Nigeria. Each plays a unique role that influences the project outcomes.

5.10.2 Proposition Identification of primary stakeholders.

Upon analysing the findings from Projects A, B, and C, there are notable similarities in identifying primary stakeholders involved in implementing affordable housing policies in the south-south region of Nigeria.

Table 5.9: Primary Stakeholders Identification

Source: Author, 2024

Primary Stakeholders	IDS1	IDS2	IDS3
Government Agencies and Parastatals	✓	✓	✓

End-Users (Low-Income Earners and Civil Servants)	✓		✓
Financial Institutions	✓	✓	
Professionals and Contractors	✓	✓	

5.10.2.1 Government Agencies and Parastatals

All three projects consistently identify government agencies and parastatals as key stakeholders in the affordable housing sector. In Project A, government agencies such as the Bureau of Public Procurement (BoPP) and the Ministry of Works and Housing Development are recognised as crucial players. Project B also highlights the government's role in creating a favourable environment for affordable housing through zoning laws, building codes, and tax incentives. Similarly, Project C emphasises the government's responsibility in providing land, financing, and overseeing project implementation. This common thread underscores the central role of government entities in shaping policies, allocating resources, and facilitating the development of affordable housing projects.

5.10.2.2 End-Users (Low-Income Earners and Civil Servants)

Another similarity across the projects is the recognition of end-users, particularly low-income earners and civil servants, as primary stakeholders. Project A considers end-users as crucial stakeholders whose opinions and requirements should be incorporated into the planning and design stages of affordable housing projects. Project C mentions civil servants in levels 3-10 as the target beneficiaries of low-income housing policies, such as the "XX low-income housing estate." This focus on end-users highlights the importance of understanding and addressing the needs and affordability constraints of the target population in the successful implementation of affordable housing policies.

5.10.2.3 Financial Institutions

The role of financial institutions as primary stakeholders is consistently acknowledged across the projects. In Project A, financial institutions are identified as critical players in project financing, with their involvement closely linked to the challenges faced by the project. Project B also includes financial institutions among the key stakeholders, alongside the government, professionals, and contractors. This common recognition

of financial institutions emphasises their essential role in providing funding, financial services, and support for developing and acquiring affordable housing units.

5.10.2.4 *Professionals and Contractors*

Projects A and B mention the involvement of professionals and contractors as key stakeholders in implementing affordable housing policies. Project A refers to the engagement of civil engineers and quantity surveyors from the Ministry of Works in the monitoring and control processes. Project B specifically lists project managers, engineers, quantity surveyors, and contractors among the primary stakeholders. This similarity highlights the importance of technical expertise and the active participation of professionals in the planning, design, construction, and oversight of affordable housing projects.

While there may be slight variations in the specific stakeholders mentioned across the projects, the overall pattern reveals a consistent recognition of government agencies, end-users, financial institutions, and professionals as primary stakeholders in the affordable housing sector. This shared understanding emphasises the need for a multi-stakeholder approach that engages and aligns the interests of these key players to successfully implement affordable housing policies in the south-south region of Nigeria.

Despite acknowledging and actively involving these primary stakeholders, policymakers and implementers can foster collaboration, address the diverse needs and challenges associated with affordable housing, and work towards more inclusive and sustainable housing solutions for the target population.

Enhancing public-private partnerships, increasing financial incentives for developers, and improving regulatory frameworks can effectively harness existing drivers and introduce new drivers to boost the performance of the affordable housing delivery system.

5.10.3 Proposition Optimisation and promotion of drivers for improved performance

Upon analysing the findings from Projects A, B, and C, several similarities emerge in terms of optimising and promoting drivers for improved performance in implementing affordable housing policies in the south-south region of Nigeria.

Table 5.10: Drivers for improved performance

Source: Author, 2024

Drivers for improved performance	IDS1	IDS2	IDS3
Effective Monitoring and Control Systems	✓		✓
Stakeholder Collaboration and Engagement	✓	✓	✓
Adequate Funding and Resource Allocation	✓	✓	✓
Political Will and Government Support	✓	✓	✓

5.10.3.1 *Effective Monitoring and Control Systems*

Projects A and C both emphasize the importance of robust monitoring and control (M&C) systems as a critical driver for the successful implementation of affordable housing policies. Project A highlights the involvement of external consultants and government representatives, such as civil engineers and quantity surveyors from the Ministry of Works, in the M&C processes. Similarly, Project C identifies effective monitoring and control as crucial for project success, alongside the involvement of local communities to foster a sense of ownership and participation. This common focus on M&C systems underscores the need for regular oversight, quality assurance, and timely interventions to keep affordable housing projects on track and ensure their successful completion.

5.10.3.2 *Stakeholder Collaboration and Engagement*

All three projects stress the significance of stakeholder collaboration and engagement as a key driver for improved performance in affordable housing policy implementation. Project A emphasizes the need for a multi-stakeholder approach, recognizing the roles

of government agencies, end-users, and financial institutions in addressing affordable housing challenges. Project B highlights the importance of effective communication among stakeholders, qualified contractors' involvement, and representatives' use to monitor progress. Project C also mentions the critical role of stakeholder collaboration, particularly between government entities, private developers, and local communities. This shared emphasis on stakeholder collaboration and engagement underscores the importance of fostering partnerships, aligning interests, and leveraging the expertise and resources of various stakeholders to optimise the implementation of affordable housing policies.

5.10.3.3 *Adequate Funding and Resource Allocation*

The optimization of funding and resource allocation is another common driver identified across the projects. Project A recognizes the need for improved financial planning to overcome the challenges encountered in affordable housing initiatives. Project B emphasizes the provision of sufficient funds as a critical success factor, while also acknowledging the challenges posed by inadequate funding and the high cost of building materials. Project C highlights the importance of securing adequate financing and the negative impact of financial constraints on project sustainability and affordability. This shared focus on funding and resource allocation underscores the need for strategic financial management, efficient utilization of resources, and the exploration of innovative financing mechanisms to support the successful implementation of affordable housing policies.

5.10.3.4 *Political Will and Government Support*

The role of political will and government support as drivers for improved performance is evident across the projects. Project A emphasises the need for consistent government support in providing land, necessary approvals, and collaborating with stakeholders. Project B identifies the lack of political goodwill as a root cause of project failure, highlighting the importance of strong government commitment. Project C also mentions the lack of political will as a challenge, as reflected in the non-implementation of housing budget allocations. This common emphasis on political will and government support underscores the critical role of government leadership, policy consistency, and

the allocation of necessary resources to create an enabling environment for the successful implementation of affordable housing policies.

This table visualises the similarities in identifying drivers for improved performance across the three projects. It emphasises the importance of focusing on effective monitoring and control, stakeholder collaboration, adequate funding and resources, and strong political will and government support to optimise the implementation of affordable housing policies in the south-south region of Nigeria.

The monitoring and control system in the delivery of affordable housing schemes is often fragmented and under-resourced, leading to discrepancies in project accountability and quality control across different phases of housing development.

5.10.4 Structure and effectiveness of monitoring and control systems.

Upon analysing the findings from Projects A, B, and C, several similarities emerge in the monitoring and control (M&C) systems employed in implementing affordable housing policies in the south-south region of Nigeria.

Table 5.11: Monitoring and control systems

Source: Author, 2024

Aspect of Monitoring and Control Systems	IDS1	IDS2	IDS3
Financial Constraints and Inadequate Funding	✓	✓	✓
Inconsistent Government Policies and Lack of Political Will	✓	✓	
High Cost of Construction Materials		✓	✓
Corruption and Mismanagement	✓		✓

5.10.4.1 Composition of the Monitoring and Control Team

All three projects provide insights into the composition of the M&C teams responsible for overseeing the implementation of affordable housing initiatives. Project A mentions that the M&C team consists of external consultants and representatives from the

government, specifically the ministry. The team includes professionals such as civil engineers and quantity surveyors from the Ministry of Works. Similarly, Project B indicates that the project manager leads the M&C team and includes quantity surveyors, civil engineers, accountants, structural engineers, and valuers. Project C also highlights the presence of government representatives and independent project managers in the monitoring teams. This common pattern underscores the importance of having a multi-disciplinary team with technical expertise and government oversight to ensure effective monitoring and control of affordable housing projects.

5.10.4.2 *Criteria for Selecting the Monitoring and Control Team*

Projects A and B provide insights into the criteria used for selecting members of the M&C team. In Project A, the selection criteria include professional experience, while some members are chosen due to the political goodwill of interested politicians. Project B mentions qualifications, experience, knowledge of quality and safety procedures, and familiarity with project deliverables as the key criteria for selecting the M&C team. Although Project C does not explicitly state the selection criteria, the involvement of government representatives and independent project managers suggests a focus on expertise and impartiality. This similarity in selection criteria emphasises the need for competent and experienced professionals to monitor and control affordable housing projects.

5.10.4.3 *Challenges Faced by the Monitoring and Control Team*

The projects highlight common challenges encountered by the M&C teams during their duties. Project B identifies conflicts between professionals, bureaucracies, and the tedious task of supervising adherence to monitoring and control methods as significant challenges. Project C mentions inadequate compensation, professional conflicts, and safety and security concerns as issues the monitoring teams face. While Project A does not explicitly state the challenges, the involvement of external consultants and government representatives suggests the potential for coordination and communication challenges. These similarities underscore the need to address the operational and logistical hurdles faced by M&C teams to ensure their effectiveness in overseeing the implementation of affordable housing policy.

5.10.4.4 *Role of Monitoring and Control in Project Success*

Projects A and C explicitly recognise the crucial role of effective monitoring and control in the success of affordable housing initiatives. Project A identifies the M&C team's responsibility to adhere to project timelines, costs, and quality standards. Project C also emphasises the importance of effective monitoring and control for project success, alongside the involvement of local communities. Although Project B does not directly state the impact of M&C on project success, the presence of a dedicated M&C team led by the project manager suggests its significance. This shared recognition of the critical role of monitoring and control underscores the need for robust M&C systems to ensure the successful implementation of affordable housing policies.

In conclusion, Projects A, B, and C demonstrate similarities in their monitoring and control systems for implementing affordable housing policies in the south-south region of Nigeria. These similarities include the composition of multi-disciplinary M&C teams, the focus on expertise and experience in team selection, the challenges faced by M&C teams, and the recognition of the crucial role of effective monitoring and control in project success. By strengthening these M&C systems and addressing the identified challenges, policymakers and implementers can enhance the oversight and management of affordable housing initiatives, leading to improved outcomes and more effective policy implementation.

5.10.5 Second-level Analysis Differences of Key Components

Proposition – The effective implementation of affordable housing policies by stakeholders is significantly hindered by a combination of factors, including limited financial resources, bureaucratic inefficiencies, and challenges in land acquisition.

Proposition Challenges in the implementation of policies and reform.

Upon analysing the findings from Projects A, B, and C, while there are notable similarities in the challenges faced during the implementation of affordable housing policies in the south-south region of Nigeria, some distinct differences highlight the

unique obstacles encountered in each project. Table 5.12 shows the challenges faced during the implementation of policies related to affordable housing.

Table 5.12: Implementation of Policies Challenges

Source: Author, 2024

CHALLENGES IN THE IMPLEMENTATION OF POLICIES	IDS1	IDS2	IDS3
Excessive Reliance on Subcontracting	✓		
Delays in Establishing Special Purpose Vehicle (SPV)	✓		
High Cost of Construction Materials		✓	✓
Inadequate Funding and Budgetary Issues		✓	✓
Security Concerns			✓
Corruption			✓

5.10.5.1 Excessive Reliance on Subcontracting (Project A)

One of the major challenges specific to Project A is the excessive reliance on subcontracting, which is identified as a significant root cause of the project's failure. This overreliance on subcontractors exacerbated the financial difficulties faced by the project. In contrast, Projects B and C do not explicitly mention subcontracting as a major challenge, suggesting that this issue may have been more prevalent or impactful in Project A.

5.10.5.2 Delays in Establishing Special Purpose Vehicle (Project A)

Another challenge unique to Project A is the delay in establishing a Special Purpose Vehicle (SPV) to manage and supervise the project effectively. This delay is cited as one of the key factors causing challenges during the implementation of Project A. Projects B and C do not specifically mention delays related to the establishment of SPVs, indicating that this may have been a project-specific issue in Project A.

5.10.5.3 *High Cost of Construction Materials (Projects B and C)*

Projects B and C highlight the high cost of construction materials as a significant challenge affecting the implementation of affordable housing policies. This challenge directly impacts the affordability of housing projects, as the increased costs are often passed on to the end-users. In contrast, Project A does not explicitly mention the high cost of construction materials as a major challenge, suggesting that this issue may have been more pronounced in Projects B and C.

5.10.5.4 *Inadequate Funding and Budgetary Issues (Projects B and C)*

While all three projects face financial constraints, Projects B and C specifically emphasize inadequate funding and budgetary issues as major challenges. Project B identifies inadequate finance as a root cause of project failure, while Project C highlights how financial challenges and inflation rendered initial cost estimates obsolete, necessitating budget reassessments. These specific budgetary challenges are not explicitly mentioned in Project A, indicating that the nature and severity of financial constraints may have varied across the projects.

5.10.5.5 *Security Concerns (Project C)*

Project C uniquely mentions security concerns as a challenge affecting the implementation of affordable housing policies. The need for safety measures due to local hostilities is cited as a factor impacting construction costs in Project C. This specific security challenge is not highlighted in Projects A and B, suggesting that the local context and security situation may have posed additional obstacles in Project C.

5.10.5.6 *Corruption (Project C)*

Corruption is explicitly identified as a significant root cause of failure in affordable housing projects in Project C. The findings from Project C suggest that corruption played a major role in hindering the successful implementation of policies. While Projects A and B do not directly mention corruption as a challenge, issues related to mismanagement and stakeholder disagreements are noted, which may indicate underlying governance issues.

In summary, the differences in challenges across the three projects underscore the importance of considering the specific context, local factors, and project-specific dynamics when analysing the obstacles faced in implementing affordable housing policies. While common challenges, such as financial constraints and inconsistent government policies, cut across all projects, unique challenges in each project highlight the need for tailored strategies and interventions to effectively address the specific bottlenecks and barriers encountered in each case.

Despite recognising and addressing these project-specific challenges, alongside the shared obstacles, policymakers and implementers can develop more targeted and effective solutions to overcome the hurdles faced in implementing affordable housing policies in the south-south region of Nigeria.

Proposition Government bodies, local communities, private sector developers, and international donors are the key stakeholders in the delivery of affordable housing schemes in Nigeria. Each plays a unique role that influences the project outcomes.

5.10.6 Identification of primary stakeholders.

Upon analyzing the findings from Projects A, B, and C, there are some notable differences in the identification of primary stakeholders involved in implementing affordable housing policies in the south-south region of Nigeria. Table 5.13 summarising the differences in the identification of primary stakeholders across Projects A, B, and C.

Table 5.13: Differences in primary stakeholders

Source: Author, 2024

5.10.6.1 End-Users (Projects A and C)

Projects A and C explicitly mention end-users, particularly low-income earners and civil servants, as primary stakeholders in the affordable housing sector. Project A considers end-users as crucial stakeholders whose opinions and requirements should be incorporated into the planning and design stages of affordable housing projects. Similarly, Project C specifically identifies civil servants in levels 3-10 as the target beneficiaries of low-income housing policies. In contrast, Project B does not explicitly

highlight end-users as primary stakeholders, focusing more on institutional and professional stakeholders.

5.10.6.2 *Financial Institutions (Projects A and B)*

Projects A and B identify financial institutions as primary stakeholders in the affordable housing sector, recognizing their critical role in project financing and the challenges associated with their involvement. However, Project C does not explicitly mention financial institutions as primary stakeholders, suggesting that the emphasis on their role may vary across different projects and contexts.

5.10.6.3 *Professionals and Contractors (Projects A and B)*

Both Projects A and B highlight the involvement of professionals and contractors as key stakeholders in the implementation of affordable housing policies. Project A mentions the engagement of civil engineers and quantity surveyors from the Ministry of Works in the monitoring and control processes, while Project B specifically lists project managers, engineers, quantity surveyors, and contractors among the primary stakeholders. In contrast, Project C does not explicitly identify professionals and contractors as primary stakeholders, indicating that the emphasis on their role may differ across projects.

5.10.6.4 *Bureau of Public Procurement (Project A)*

Project A uniquely identifies the Bureau of Public Procurement (BoPP) as a key stakeholder in the affordable housing sector, recognizing its role in the procurement process. This specific mention of BoPP is not found in Projects B and C, suggesting that the involvement and significance of this stakeholder may vary depending on the project and its procurement requirements.

5.10.6.5 *State Government and Developers (Project C)*

Project C highlights the collaborations between federal parastatals, state governments, and developers as key stakeholders in implementing affordable housing policies, specifically in the context of Public-Private Partnerships (PPP). This explicit mention of state government and developers as primary stakeholders is not found in

Projects A and B, indicating that the emphasis on their role may be more prominent in Project C, given its focus on PPP arrangements.

These differences in identifying primary stakeholders across Projects A, B, and C underscore the importance of considering the specific context, project requirements, and local dynamics when analysing the key players involved in implementing affordable housing policies. While common stakeholders are recognized across all projects, such as government agencies, the emphasis on specific stakeholder groups may vary depending on the project's focus, procurement methods, and partnerships.

Despite acknowledging these differences and tailoring stakeholder engagement strategies accordingly, policymakers and implementers can ensure that the unique needs, interests, and contributions of each stakeholder group are effectively addressed and leveraged to support the successful implementation of affordable housing policies in the south-south region of Nigeria.

Enhancing public-private partnerships, increasing financial incentives for developers, and improving regulatory frameworks can effectively harness existing drivers and introduce new drivers to boost the performance of the affordable housing delivery system.

5.10.7 Proposition Optimisation and promotion of drivers for improved performance.

Upon analysing the findings from Projects A, B, and C, there are some notable differences in the optimisation and promotion of drivers for improved performance in implementing affordable housing policies in the south-south region of Nigeria. Table 5.14 summarizing the differences in the optimisation and promotion of drivers for improved performance across Projects A, B, and C:

Table 5.14: Drivers for improved performance

Source: Author, 2024

DRIVERS FOR IMPROVED PERFORMANCE	IDS1	IDS2	IDS3
Effective Monitoring and Control Systems	✓		✓
Community Involvement			✓

Qualification and Experience of Contractors		✓	
Provision of Infrastructure and Amenities	✓		
Effective Communication and Collaboration		✓	

5.10.7.1 *Effective Monitoring and Control Systems (Projects A and C)*

Projects A and C explicitly emphasize the importance of robust monitoring and control (M&C) systems as a critical driver for the successful implementation of affordable housing policies. However, Project B does not specifically highlight the role of M&C systems in promoting improved performance. This difference suggests that the emphasis on M&C as a driver may vary across projects, depending on their specific contexts and challenges.

5.10.7.2 *Community Involvement (Project C)*

Project C uniquely highlights the involvement of local communities as a driver for improved performance in affordable housing policy implementation. The project emphasizes the importance of engaging local communities to foster a sense of ownership and participation, which can contribute to the success of affordable housing initiatives. This specific driver is not explicitly mentioned in Projects A and B, indicating that the role of community involvement may be more prominent in Project C's context.

5.10.7.3 *Qualification and Experience of Contractors (Project B)*

Project B identifies the involvement of qualified and experienced contractors as a key factor contributing to the success of affordable housing projects. The project emphasizes the importance of engaging contractors with the necessary skills and expertise to ensure the effective implementation of housing initiatives. While Projects A and C do not explicitly mention this driver, they may implicitly recognize the role of qualified professionals in promoting improved performance.

5.10.7.4 *Provision of Infrastructure and Amenities (Project A)*

Project A highlights the lack of basic amenities and infrastructure as a challenge in the implementation of affordable housing policies, implying that the provision of these elements could be a driver for improved performance. The project's findings suggest that addressing the deficiencies in infrastructure and amenities could contribute to the success of affordable housing initiatives. While Projects B and C do not explicitly emphasize this driver, they may acknowledge the importance of providing necessary infrastructure and amenities in their specific contexts.

5.10.7.5 *Effective Communication and Collaboration (Project B)*

Project B emphasizes the role of effective communication and collaboration among stakeholders as a driver for improved performance in affordable housing policy implementation. The project highlights the importance of regular progress meetings, clear division of roles, and effective coordination among stakeholders to ensure the success of housing initiatives. While Projects A and C do not explicitly mention this driver, they may implicitly recognize the value of effective communication and collaboration in their specific contexts.

These differences in the optimization and promotion of drivers for improved performance across Projects A, B, and C underscore the importance of considering the specific context, challenges, and priorities of each project when identifying and leveraging key drivers. While some drivers may be commonly recognized across projects, such as stakeholder collaboration and adequate funding, others may be more prominent or relevant in certain contexts, such as community involvement or the provision of infrastructure and amenities.

By acknowledging these differences and tailoring strategies to optimise and promote context-specific drivers, policymakers and implementers can enhance the effectiveness and success of affordable housing policy implementation in the south-south region of Nigeria. This approach ensures that each project's unique strengths and opportunities are leveraged to drive improved performance and achieve the desired outcomes in the provision of affordable housing.

The monitoring and control system in the delivery of affordable housing schemes is often fragmented and under-resourced, leading to discrepancies in project accountability and quality control across different phases of housing development.

5.10.8 Structure and effectiveness of monitoring and control systems.

Upon analysing the findings from Projects A, B, and C, there are some notable differences in the monitoring and control (M&C) systems employed in the implementation of affordable housing policies in the south-south region of Nigeria. Table 5.15 illustrates the differences in monitoring and control systems across the three projects:

Table 5.15: Differences in monitoring and control systems across the projects

Source: Author, 2024

MONITORING AND CONTROL SYSTEMS	IDS1	IDS2	IDS3
Composition of M&C Team	External consultants, Government representatives (civil engineers, quantity surveyors)	Project manager: Quantity surveyors, Civil engineers, Accountants, Structural engineers, Valuers	Government representatives, independent project managers
Challenges Faced by M&C Team	Not explicitly stated Potential coordination and communication challenges implied	Conflicts between professionals, Bureaucracies, Tedious task of supervising adherence to M&C methods	Inadequate compensation, Professional conflicts, Safety and security concerns
Selection Criteria for M&C Team	Professional experience, Political goodwill of interested politicians	Qualifications, Experience, Knowledge of quality and safety procedures, Familiarity with project deliverables	Not explicitly stated
Involvement of External Consultants	Yes, however information not stated		

5.10.8.1 *Composition of the Monitoring and Control Team*

While all three projects involve a multi-disciplinary M&C team, there are differences in the specific composition of these teams. Project A mentions the involvement of external consultants alongside government representatives from the ministry, such as civil engineers and quantity surveyors. Project B highlights a team led by the project manager, including quantity surveyors, civil engineers, accountants, structural engineers, and valuers. Project C involves government representatives and independent project managers in the monitoring teams. These differences suggest that the composition of M&C teams may vary based on the project's specific requirements, available resources, and institutional arrangements.

5.10.8.2 *Challenges Faced by the Monitoring and Control Team*

The projects highlight different challenges encountered by the M&C teams. Project B emphasizes conflicts between professionals, bureaucracies, and the tedious task of supervising adherence to monitoring and control methods as significant challenges. Project C mentions inadequate compensation, professional conflicts, and safety and security concerns as issues faced by the monitoring teams. In contrast, Project A does not explicitly state the challenges faced by the M&C team, although it mentions the involvement of external consultants and government representatives, which may imply potential coordination and communication challenges. These differences indicate that the nature and severity of challenges faced by M&C teams may vary depending on the project's context, team composition, and local dynamics.

5.10.8.3 *Selection Criteria for Monitoring and Control Team*

Projects A and B provide different insights into the criteria used for selecting members of the M&C team. Project A mentions professional experience as a key criterion, while also noting that some members are chosen due to the political goodwill of interested politicians. In contrast, Project B emphasizes qualifications, experience, knowledge of quality and safety procedures, and familiarity with project deliverables as the main selection criteria. Project C does not explicitly state the selection criteria for its M&C team. These differences suggest that the emphasis on specific selection criteria may

vary across projects, reflecting the unique priorities, political considerations, and institutional practices of each project.

5.10.8.4 *Involvement of External Consultants (Project A)*

Project A distinctly mentions the involvement of external consultants in the M&C process, alongside government representatives from the ministry. This involvement of external consultants is not explicitly highlighted in Projects B and C. The engagement of external consultants in Project A may reflect a specific strategy to bring in additional expertise, ensure independence, or address capacity constraints within the government's monitoring and control framework. This difference underscores the potential variations in the approach to M&C across projects, based on their specific needs and available resources.

These differences in the monitoring and control systems across Projects A, B, and C highlight the importance of considering the specific context, institutional arrangements, and project requirements when designing and implementing M&C frameworks for affordable housing policy implementation. While all projects recognize the importance of M&C, the composition of teams, challenges faced, selection criteria, and involvement of external parties may vary based on the unique circumstances of each project.

Despite acknowledging these differences and adapting M&C strategies accordingly, policymakers and implementers can ensure that the monitoring and control systems are tailored to the specific needs and constraints of each project, thereby enhancing their effectiveness in overseeing and guiding the successful implementation of affordable housing policies in the south-south region of Nigeria.

Table 5.16: Third-level Analysis Contract Document

Source: Author, 2024

Aspect	IDS Project A	IDS Project B	IDS Project C
Similarities			

Contract Preparation	Client and financier (supervision)	Client and financier (supervision)	Client and financier (supervision)
	Public and private partners	Public and private partners	Developers
Tender Type	Selected Tender	Selected Tender	Selected Tender
Project Cost	Higher than initial budget	Higher than initial budget	Higher than initial budget
Project Stage	On hold, appears abandoned	On hold, appears abandoned	On hold, appears abandoned
Causes of Delays	Inadequate funding	Inadequate funding	Inadequate funding
	Delay in payments	Delay in payments	Delay in payments
	Unharmonized policies and regulations	Unharmonized policies and regulations	Unharmonized policies and regulations
Differences			
Project Type	Mixed-use	Residential	Residential
Location	Rivers State	Bayelsa State	Akwa Ibom, State
Project Value	N82 billion	N15 billion	N4.8 billion
Expected Finish Date	December 1, 2020	December 20, 2016	December 1, 2022
Procurement Method	Construction Management	Design and Build	Design and Build
Client Staff Location	On-site	On-site	Head office (Lagos)
Contract Type	Construction Management Contract	Public and Private Partnership	Public and Private Partnership
	(milestones, professional fees)		
Unique Causes of Delays	Lack of goodwill	Weather conditions	High cost of construction Materials
	Community engagement	Political interference	Changes and Modifications

Based on the information provided in the document, I can analyze the similarities and differences between IDS Projects A, B, and C as follows:

i. Similarities:

The comparative analysis of the three projects reveals striking similarities in their contract preparation, tender type, project cost, and current stage. All projects involve the client and financier in supervision, with public-private partnerships or developers in execution, utilizing Selected Tender across design, supervision, and execution phases. Revisiting these projects would result in higher costs than initially budgeted. Presently, all three projects are on hold, appearing abandoned with no on-site workers. Inadequate funding, payment delays, and unharmonized policies and regulations consistently contribute to project delays.

ii. Differences:

The three projects exhibit notable differences in their project types, locations, values, expected completion dates, procurement methods, client staff locations, contract types, and specific causes of delays. Project A, a mixed-use development in Port Harcourt, has the highest value and employs Construction Management with milestone-based payments. In contrast, Projects B and C are residential developments in Bayelsa and Akwa Ibom, respectively, utilizing Design and Build procurement and Public-Private Partnership contracts. Client staff locations vary, with on-site representation in Projects A and B, while Project C's staff is based in Lagos. Each project faces unique delay factors, such as community engagement issues, weather conditions, political interference, and material costs, in addition to the shared challenges of inadequate funding, payment delays, and unharmonized policies.

5.11 Analytical Generalisation Outcome

The comparative analysis of the three IDS projects reveals both similarities and differences in their project delivery approaches, status, and challenges faced. The projects share a collaborative effort between the public and private sectors, the use of Selected Tender, potential for cost escalation, and current on-hold status. Common causes of delays include inadequate funding, payment delays, and unharmonized policies and regulations.

However, the projects differ in their project types, locations, values, expected completion dates, procurement methods, client staff locations, contract types, and specific delay factors. Project A, a mixed-use development in Port Harcourt, has the

highest value and employs Construction Management, while Projects B and C are residential developments in Bayelsa and Akwa Ibom, utilizing Design and Build and Public-Private Partnership contracts.

This analysis highlights the complexities and unique challenges faced by each project, emphasizing the need for tailored approaches to address the specific issues hindering their progress. It also underscores the importance of effective financial management, regulatory harmonization, and stakeholder engagement in ensuring the successful delivery of infrastructure projects.

5.12 Chapter Summary and link

Chapter Five presents a comprehensive intra-case analysis of three affordable housing projects (A, B, and C) in Nigeria's south-south region, followed by a cross-case analysis. The intra-case analysis examines each project's policies, stakeholder engagement, challenges, monitoring and control, finance, and success factors. The cross-case analysis identifies similarities and differences across the projects, highlighting common themes and unique challenges.

The findings from Chapter Five inform the development and validation of the Framework for Affordable Housing Policy Implementation (FAHPI) in Chapter Six. The intra-case and cross-case analyses provide valuable insights into the complex relationships, challenges, and success factors that shape affordable housing policy implementation. These insights serve as the foundation for developing a comprehensive and context-specific framework in Chapter Six, which aims to address the identified issues and optimize the delivery of affordable housing in Nigeria's south-south region. The framework's validation process in Chapter Six further refines its applicability and robustness.

6 CHAPTER SIX: FRAMEWORK DEVELOPMENT AND VALIDATION.

6.1 Chapter Overview

The Previous chapter analysed the findings of the three (3) Projects and looked at the similarities through cross-case syntheses. In this chapter, the findings and results are gathered. The research will Present the conceptual framework that will be. Framework Development Process, Data Collection, Data Analysis and Framework validation

6.2 Framework Development Process

Several conceptual frameworks have been developed since the 1970s to analyze and understand displacement and resettlement issues, attracting scholars' interest in development-induced internal displacements and resettlements (Sapkota et al., 2017; Sridarran, 2018). The result of this study is organized and develops a framework to clarify the issues examined, combining elements from models such as viable infrastructure Delivery Model (VIDM) Three levels (Input, process and Output), and the National Infrastructural System Model (NISMOD). The outcome depends on multiple factors, integrating policy implementation previously used in organisational structure.

The findings of this study are designed to aid policymakers in Nigeria's construction industry by informing decisions, legislation, and implementations that could address the housing shortage and other associated housing challenges in Nigeria. The resulting framework will provide a clear, accessible tool for policymakers and practitioners to evaluate and manage the resources and factors that influence the successful implementation of affordable housing policies in Nigeria's South-South region. The literature reviewed in Chapter 2 highlights the challenges of IDS policy implementation for housing, and the framework developed in this study identifies policy gaps in the IDS implementation for affordable housing. Therefore, the proposed framework aims to advance future research on IDS for affordable housing policy implementation activities. This framework was validated through a review of existing literature, frameworks, models, analysis of relevant documents, and expert interviews to ensure its authenticity.

6.3 Development and Framework structure

This framework has provided evidence suggesting it could be a viable route for enhancing policy related to housing challenges in Nigeria, including displacement and resettlement, ultimately benefiting the affected communities. To refine and validate the

proposed framework, research findings were integrated with feedback from six experts involved in three different projects. The validation process addressed several key aspects as shown in Figure 6.1 .

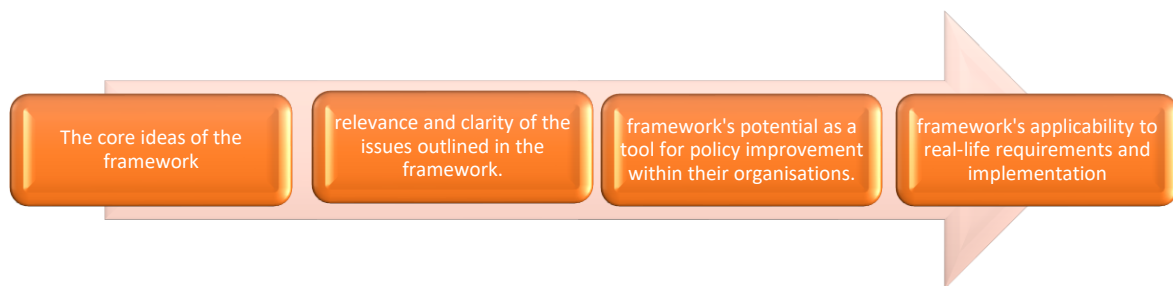


Figure 6.1: Developing Framework process for FAHPI.

Nine experts were initially contacted, with six agreeing to participate after multiple phone calls. Each participant, representing two state representatives, affirmed the framework's effectiveness with minor suggested adjustments. The validation was conducted through semi-structured telephone interviews, allowing experts to authenticate and comment on the framework. All six experts gave positive feedback, and adjustments were made accordingly, enhancing the framework's clarity and relevance to industry challenges and barriers. Below, the framework's development is detail.

Figure 6.2 shows the initial sketch of the FAHPI structure, which outlines the key sections of the VIDM, including the VSM and System Thinking discussed in Chapter 3. A more detailed figure was designed to better understand this initial sketch.

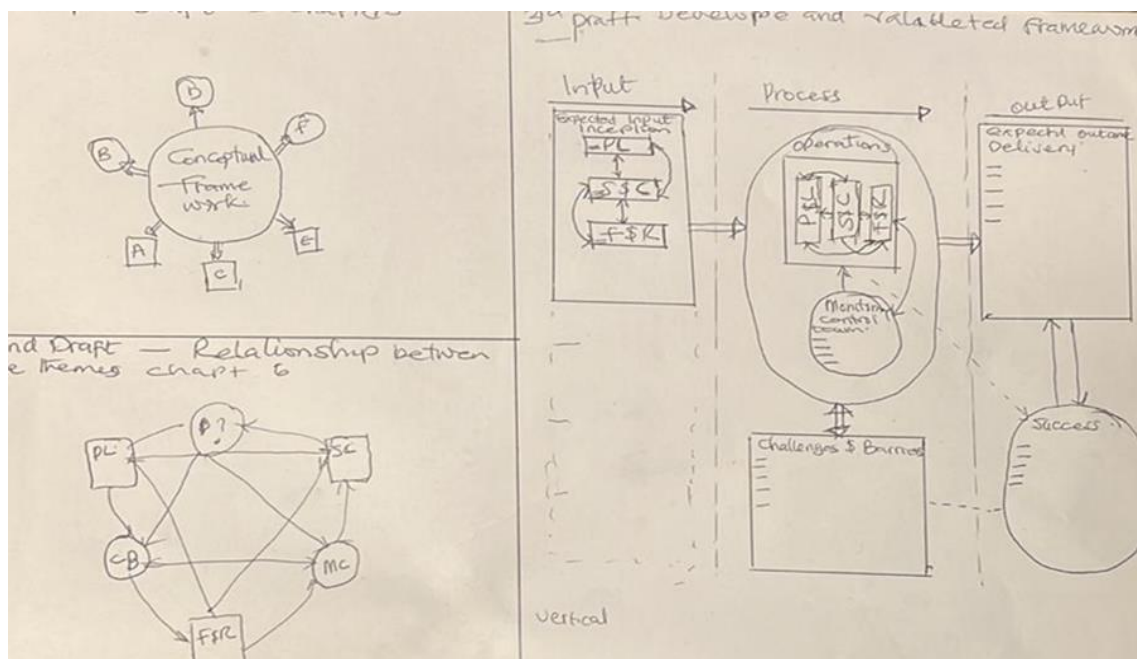


Figure 6.2: Initial Hand Sketches of the Framework

Developing a framework to minimise or eliminate the challenges and barriers to policy implementation involves establishing several crucial elements. This research contributes to the existing body of knowledge by focusing on Infrastructure Delivery Systems (IDS) for implementing affordable housing policies, particularly in the South-South region of Nigeria. The proposed framework evaluates the positive and negative outcomes of the nation's affordable housing policy efforts. It serves as a tool for project planners, policymakers, and governmental bodies to identify and address long-term impediments to successful policy implementation.

The framework underscores the necessity of rigorous monitoring and control mechanisms, as implemented by the Framework for Affordable Housing Policy Implementation (FAHPI), across various operational areas. It highlights critical aspects of the IDS for Affordable Housing, including Policy and Legislation, Stakeholders and Collaboration, and Finance and Resources. Within this context, policies set the objectives for housing, while legislation transforms these policies into executable laws.

To successfully implement affordable housing initiatives targeted at low-income earners, a comprehensive approach is required. This approach must integrate a solid policy and legislative framework with effective stakeholder collaboration and strategic financial and resource management. When these elements work together, they create

a sustainable ecosystem that ensures affordable housing projects are initiated, maintained, and responsive to the needs of the intended beneficiaries. Adopting this holistic strategy is crucial for overcoming the inherent challenges in policy execution and achieving long-term success in affordable housing provision.

6.3.1 Framework Structure to align with the aim of the study.

The framework's structure was based on the results of the research design's empirical phase, which included two steps: evaluating existing theories and conducting qualitative interviews. The key factors influencing the IDS housing policy adoption process were identified from the theories and supported by empirical evidence. The relationship between these factors, initially grouped into five themes and sub-themes, was also established. These findings from the literature study made up the first part of the framework, presenting the FAHPI categories.

The second step, the qualitative interview study, provided a deeper understanding of the relationships between the key factors (categories and components) that affect housing policy implementation within the Nigerian construction industry. It also analyzed the policy implementation process and how each factor influences the project in terms of stakeholder engagement. The findings revealed that the IDS adoption process consists of six stages: Stakeholders Collaboration (S&C), Policy & Legislation (P&L), Monitoring & Control (M&B), Challenges & Barriers (C&B), Finance and Resources (F&R), and Success & Drivers (S&D). This formed the second part of the framework, based on the VIDM adoption process.

6.3.2 Framework Definition

A framework is a structured approach to understanding and addressing complex issues or processes. It provides a conceptual foundation and guides decision-making, problem-solving, and action (Ostrom, 2009). Frameworks are essential tools in various fields, including policy implementation, as they help organize ideas, identify key elements, and clarify relationships between different components (Sabatier & Weible, 2014).

In the context of affordable housing policy implementation, a framework serves as a roadmap for policymakers, project planners, and other stakeholders. It helps them navigate the intricacies of the policy landscape, understand the challenges and barriers, and develop strategies to overcome them (Iglesias, 2015). By systematically analyzing the problem and identifying solutions, a well-designed framework can contribute to more effective policy implementation and better outcomes for affordable housing initiatives (Gopalan & Venkataraman, 2015).

Developing a framework involves thoroughly examining the existing literature, analysing best practices, and input from relevant stakeholders (Smith & Larimer, 2018). The framework development process is iterative, requiring refinement and adaptation as new insights emerge or circumstances change (Ostrom, 2009). A robust framework should be flexible enough to accommodate different contexts while providing a clear direction for action (Sabatier & Weible, 2014).

In summary, a framework is a valuable tool for understanding and addressing complex issues, such as affordable housing policy implementation. It provides a structured approach to problem-solving, helps identify key elements and relationships, and guides decision-making and action. Developing a framework requires a comprehensive analysis of the problem, input from stakeholders, and a willingness to adapt to ensure its effectiveness in achieving desired outcomes.

6.3.3 Interrelationships between Framework Components and Understanding its Complexity.

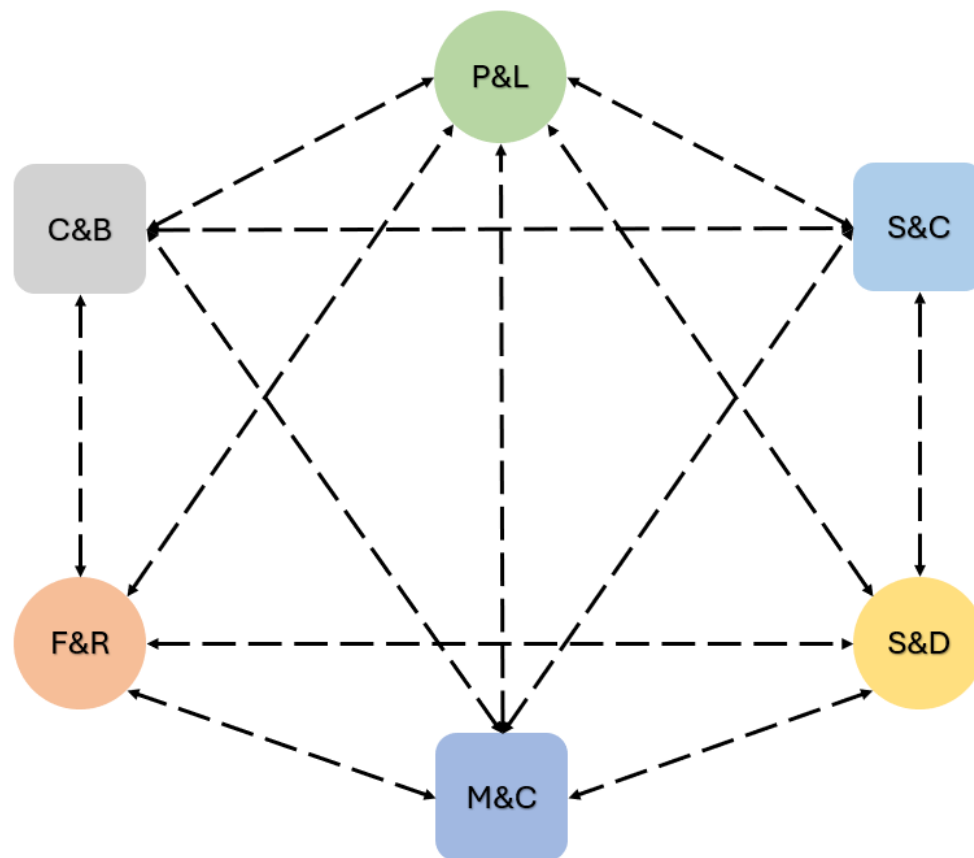


Figure 6.3: Framework Component and their Interrelationships

Figure 6.3 clearly illustrates that the six key FAHPI components have multiple bidirectional relationships, forming an interconnected web rather than a simple linear flow. This highlights the complex, interdependent nature of the factors influencing successful affordable housing policy implementation of a system or organization. (Olawale & Sun, 2010; Akintoye & Renukappa, 2013). Below are analyses that might reflect interrelationships and complexities within these components:

i. Policy & Legislation (P&L)

Policy & Legislation (P&L) form the backbone of any framework, appropriately positioned as the foundational component. Strong policies and clear legislation create an environment in which organizations can thrive (Ibem & Aduwo, 2013). They set the boundaries and expectations for behavior and performance, providing a structure for

accountability and consistency. Well-designed P&L pave the way for more effective stakeholder engagement by clearly defining the rules and guidelines within which parties must operate (Makinde, 2014; Ugonabo & Emoh, 2013).

Moreover, the effectiveness of P&L heavily depends on securing adequate Finance and resources and establishing a robust Monitoring and control system (Olotuah & Bobadoye, 2009; Ademiluyi, 2010). Sufficient funding and resources are essential to implement policies and enforce legislation, while a strong monitoring and control framework enables tracking progress, identifying issues, and making necessary course corrections (Jiboye, 2011; Ibem, Anosike, & Azuh, 2011).

P&L also play a crucial role in shaping responses to challenges and barriers. By anticipating potential obstacles and providing guidance on how to address them, well-crafted policies and legislation can help organizations navigate complex environments more effectively (Aribigbola, 2008; Ibem, 2011). Ultimately, the success of any framework is driven by the strength and clarity of its underlying P&L, which set the stage for all other components to function effectively (Jinadu, 2007; Ndubueze, 2009).

ii. Stakeholders Engagement & Collaboration (S&C)

Stakeholder engagement is a collaborative effort that requires ongoing dialogue and mutual understanding. When stakeholders are actively involved, they can influence Policy & Legislation (P&L) to be more inclusive and representative of diverse interests (Obi & Ubani, 2014; Ibem & Azuh, 2011). This collaborative approach ensures that policies and legislation are well-informed, practical, and responsive to the needs of all parties involved (Jiboye, 2011). Stakeholders also play a crucial role in identifying and overcoming potential Challenges & Barriers (C&B) (Ibem, Anosike, & Azuh, 2011) and contribute to the development of relevant and effective Monitoring & Control (M&C) systems (Ibem, 2011).

Furthermore, stakeholder collaboration is essential for ensuring that Finance & Resources (F&R) are allocated efficiently and effectively (Ugonabo & Emoh, 2013). When stakeholders are engaged in the decision-making process, they can help prioritize resource allocation, identify cost-saving opportunities, and ensure that funds are directed towards the most critical areas (Ikechukwu & Chukwuemeka, 2013).

Ultimately, the success of affordable housing policies and achieving desired outcomes (S&D) are directly linked to the level and quality of stakeholder engagement (Jiboye, 2011; Obi & Ubani, 2014). By fostering a collaborative environment and actively involving stakeholders throughout the policy implementation process, organisations can drive success and create sustainable, long-term solutions to affordable housing challenges (Ibem & Amole, 2010).

iii. Challenges and Barriers (C&B)

Challenges and barriers (C&B) are unavoidable in any affordable housing policy implementation process, but they can be overcome with the right approach. These obstacles test the resilience and adaptability of the framework, requiring robust Policy & Legislation (P&L) to provide a strong legal and ethical foundation for decision-making (Ibem & Aduwo, 2013). Addressing C&B also necessitates the engagement of all stakeholders to find innovative solutions (Jiboye, 2011) and the utilization of effective Monitoring & Control (M&C) systems to identify and mitigate these challenges in a timely manner (Ibem, Anosike, & Azuh, 2011)

Moreover, C&B underscore the need for adequate Finance & Resources (F&R), as overcoming obstacles often requires investment and reallocation of resources (Ugonabo & Emoh, 2013). The ability to effectively navigate and overcome C&B is a key driver of success in affordable housing policy implementation (Obi & Ubani, 2014).

iv. Monitoring & Control System (M&C)

Monitoring & Control Systems (M&C) are essential for ensuring that the components of the affordable housing policy implementation framework operate within their defined parameters and progress towards their intended outcomes. These systems act as the sensory organs of the framework, detecting deviations and prompting corrective actions when necessary (Ibem, 2011). Effective M&C can inform Policy & Legislation (P&L) by providing data-driven insights into the successes and failures of the implementation process (Jiboye, 2011).

Furthermore, M&C ensures that Stakeholder Engagement and collaboration (S&C) efforts remain on track, helps navigate Challenges and barriers (C&B), and guarantees that Finance and resources (F&R) are being used as intended (Olotuah & Bobadoye, 2009). By fulfilling these critical roles, M&C directly influences the achievement of Success and drivers (S&D) in affordable housing policy implementation (Ibem & Amole, 2010).

v. Finance & Resources (F&R)

Finance and resources (F&R) are the lifeblood of any affordable housing policy implementation framework. Policies cannot be enforced, stakeholders cannot be engaged, challenges cannot be addressed, and Monitoring and control (M&C) systems cannot function without the necessary financial backing and resources (Ikechukwu & Chukwuemeka, 2013). Effective management and allocation of F&R are critical for overcoming barriers to success and driving the framework forward (Ademiluyi, 2010).

F&R must be managed in accordance with Policy & Legislation (P&L) to ensure compliance and alignment with the framework's objectives (Ibem & Azuh, 2011). Furthermore, the allocation of F&R should be influenced by the insights gained from M&C systems, stakeholders' needs and feedback (Ugonabo & Emoh, 2013). This approach ensures that resources are directed towards the most critical areas and that the framework remains responsive to the evolving needs of all parties involved (Ibem, Anosike, & Azuh, 2011).

vi. Success & Drivers (S&D)

Success & Drivers (S&D) represent the ultimate measure of an affordable housing policy implementation framework's effectiveness. They embody the goals and aspirations of the framework, and their achievement serves as the most persuasive evidence of the framework's value (Ibem & Amole, 2010). The success of the framework is influenced by several key factors, including the strength and clarity of Policy & Legislation (P&L), the depth and quality of Stakeholder Engagement & Collaboration (S&C), the framework's ability to anticipate and respond to Challenges & Barriers (C&B), the accuracy and effectiveness of Monitoring & Control (M&C)

systems, and the availability and utilization of Finance & Resources (F&R) (Jiboye, 2011; Obi & Ubani, 2014).

The achievement of S&D is a culmination of the effective functioning and interaction of all the framework's components. It requires a holistic approach that recognizes the interdependence of these elements and the need for continuous improvement based on feedback and learning (Ibem, 2011; Ibem, Anosike, & Azuh, 2011).

In conclusion, the components of the affordable housing policy implementation framework are intricately interconnected, with each element exerting influence on and being influenced by the others. For leaders and managers tasked with steering this framework towards success, understanding the complexity of these interrelationships is of utmost importance. The intricate nature of the framework demands a strategic approach that considers the systemic impacts of decisions and actions across all components.

Navigating the affordable housing policy implementation framework requires a comprehensive understanding of the dynamic interplay between policy and legislation, stakeholder engagement and collaboration, challenges and barriers, monitoring and control systems, finance and resources, and success and drivers. Leaders and managers must adopt a holistic perspective that acknowledges the interdependence of these components and the necessity for continuous adaptation based on feedback and learning.

Achieving success within this framework necessitates a keen awareness of how each component contributes to the system's overall functioning. By recognising the complex web of interrelationships and adopting a strategic, adaptive approach, leaders and managers can effectively guide the affordable housing policy implementation framework towards achieving its goals and driving positive outcomes for stakeholders and communities.

6.4 Data Collection

The current research employs a qualitative methodology for data collection, complemented by a mixed methods approach for analysis. The decision to include

quantitative descriptive statistics alongside qualitative techniques was driven by the need to conduct systematic and standardised comparisons of certain aspects of the qualitative data. This strategy facilitates a comprehensive understanding of the study data and allows for the graphical presentation of the results. By utilizing this approach, the researchers aim to gather information from the selected sample to identify the most frequently defined operational information requirements by asset owners. The data collection and analysis process involve the use of interviews and document analysis. The advantage of employing interviews lies in their ability to enable in-depth exploration of issues related to operational and business-level information needs.

Consequently, interviews prove to be a powerful investigative instrument. Throughout the research, two interviews are carried out, with one interview conducted for each case. These interviews contribute to gathering qualitative descriptions of the organizational strategies employed in establishing operational information requirements. To transcribe, code, and analyses the interview data, the researchers utilize the NVivo software (Saunders, Lewis and Thornhill, 2016). The coding technique facilitates the efficient analysis and categorization of the primary interview data (Boyatzis, 1998).

The research examines internal documents, including information requirement templates, PPP Policy Implementation, PP Housing Procurement, and PP Project Outcome. In this context, a mixed methods approach is employed to analyze these documents using the content analysis technique. This technique facilitates a qualitative multi-case comparative analysis. Moreover, a qualitative word frequency analysis is applied to draw conclusions about the most frequently defined information requirements (Stemler, 2001). In addition to the qualitative methods, quantitative descriptive statistics, such as pie charts and stacked bar charts, are utilized to compare the distribution of information requirements across the requirement definition categories within the three selected case studies. These visual representations are created using Microsoft Excel software (Walkenbach, 2015).

The study involves analyzing the operational information requirements of three case studies through document analysis. The process begins with data cleaning to identify and eliminate inconsistencies, thereby enhancing data quality (Saunders, Lewis and Thornhill, 2016). This step is crucial because the operational information requirements, along with other documentation, have been converted from voice notes to written

English for Projects A, B, and C. The operational information requirements are carefully read to understand the context of their application. The sorting process is performed iteratively until the information requirements are consistently grouped. Next, a first-level analysis is conducted to identify differences across the cases, followed by a second-level analysis to determine similarities in the operational information requirements. However, it is important to note that the selection of case studies may introduce bias towards certain sectors of the AEC industry, which is acknowledged in the study.

Table 6.1: Background Details of Expert Interviewed

Source: Author, 2024

Expert Code	Job Role	Area of Expertise	Years of Experience	location
E01	Project Manager	Architect	30	Rivers State
E02	Project Lead	Engineer	33	Rivers State
E03	Consultants	Architect	15	Akwa-ibom
E04	Consultants	Estate Surveyor	10	Akwa-ibom
E05	Consultants	Quantity Surveyor	28	Bayelsa
E06	Consultants	Quantity Surveyor	7	Bayelsa

6.4.1 Analysis of Interviewee

6.4.1.1 Validation Criteria

Semi-structured interviews were employed to facilitate a thorough validation process, enhancing the richness and scope of the data collected during each session, consistent with the methodology advocated by Creswell (2018). These interviews were strategically structured to explore key areas of contribution of the thesis to both academic knowledge and practical application, particularly examining the dynamics of IDS adoption in Nigerian Housing Policy Implementation. Additionally, the format enabled participants to offer tailored recommendations, both specific and broad, based

on their evaluations of the proposed framework. To ensure a rigorous assessment of the framework, the interviews adhered to a predefined set of criteria for evaluating its validity and reliability, as recommended by Bell et al. (2018), Gass (1983), and Reed et al. (2006). Among the criteria are **Comprehension, (Conception) Precision, Applicability and Viability (Feasibility)**.

Frees (1996) identified three essential pragmatic criteria for validating frameworks: generality, usefulness, and implement ability. Conversely, Kiviniemi (2005) argued that there are no objective measures to assess the usefulness or generality of a framework. In light of this challenge, while addressing the validity and reliability of the proposed IDS Adoption Framework (FAHPI) for Nigerian Affordable housing policy, specific criteria have been established. These criteria draw upon the guidelines set forth by scholars such as Bell et al. (2018), Gass (1983), and Reed et al. (2006). Which includes:

- 1) **Comprehensive:** ensure a clear and Understandable Framework
- 2) **Usefulness-** ensuring that the framework is beneficial to the target audience.
- 3) **Feasibility-** ensure that the framework is practical and can be implemented.
- 4) **Generality-** ensure the framework is applicable, relevant, and fits the context.

6.4.1.2 Framework Validation Method

To enhance the credibility of the proposed Framework for Affordable Housing Policy Implementation (FAHPL) in Nigeria's south-south region, the empirical study included an additional validation step beyond internal and external validity measures. This step involved conducting semi-structured interviews with six industry experts who were selected based on their familiarity with the housing policy implementation process in Nigeria.

The six experts represented a diverse range of professionals and specialists in the housing sector, all of whom were drawn from the three major projects that were previously analysed in the study. These experts had already been involved during the initial stage of the interviews and had expressed their willingness to continue participating in the validation process.

The purpose of these semi-structured interviews was to gather further insights, opinions, and recommendations from the experts regarding the proposed FAHPL. By

engaging with professionals who have direct experience and knowledge of the housing policy implementation landscape in Nigeria, the researchers aimed to validate the framework's applicability, practicality, and potential effectiveness in addressing the challenges faced in the south-south region.

The inclusion of this additional validation step, which involved soliciting feedback from a diverse group of industry experts, strengthens the overall credibility and robustness of the proposed FAHPL. By incorporating the perspectives and expertise of professionals who are actively involved in housing policy implementation, the framework can be further refined and adapted to better suit the specific needs and contexts of the south-south region of Nigeria.

The validation process of the proposed Framework for Affordable Housing Policy Implementation (FAHPI) in southern Nigeria involved semi-structured interviews with participants. They were introduced to the framework, presented with the prototype including the initial diagram, and asked to assess it based on validation criteria. Instructions and an overview of the validation process were provided, with flexible response times ranging from hours to a day. The exercise was conducted online due to time constraints and participants' preferences. Thematic analysis was used to analyze the collected data from the interviews, and the results are presented in the following sections. This validation approach aimed to ensure participants' familiarity with the prototype and gather credible assessments, while accommodating the research's limitations and participants' needs.

6.4.1.3 Validation Result Outcome

The validation interviews were conducted to assess the proposed Framework for Affordable Housing Policy Implementation (FAHPI) in Nigeria, as outlined in the previous sections (5.6 and 5.7). The interviews focused on evaluating the framework's comprehension, usefulness, feasibility, and generality. The purpose was to ensure that the FAHPI is well-understood, practical, and applicable to the Nigerian housing policy implementation context. The following section presents the results of the validation process based on the established validation criteria, providing insights into the framework's strengths and potential areas for improvement.

While the focus group discussion unfolds, the architects, quantity surveyors, project manager, and engineer engage in a dynamic exchange of insights, building upon each other's observations to paint a comprehensive picture of the FIDSAH model's strengths and areas for improvement.

i. Comprehensiveness – Ensuring a Clear and Understandable Framework:

The architects and engineers discuss the clarity and understandability of the FAHPI framework. While acknowledging its straightforward nature, they suggest incorporating visual aids and a glossary of technical terms to enhance comprehension for all stakeholders, particularly those less familiar with the technical aspects of project delivery. E01 comments, *"While the framework itself is straightforward, incorporating more visual aids could greatly enhance understanding for all stakeholders, particularly those less familiar with the technical aspects of project delivery."*

E02 adds, "Visual aids are indeed crucial. I'd also suggest including a glossary of technical terms used in the model. This would ensure that everyone is on the same page and can fully grasp the model's concepts and implications."

ii. Usefulness – Assessing the Framework's Benefit to the Target Audience:

The quantity surveyors and project manager highlight the usefulness of the FIDSAH framework in identifying stakeholders and delineating responsibilities. E05 explains, *"In our line of work, clear delineation of responsibilities is paramount. The FIDSAH Framework excels in identifying the various stakeholders involved in infrastructure projects, which is a crucial first step in ensuring smooth collaboration and accountability."* E03 adds, *"I agree that the Frameworks stakeholder identification is valuable. However, we must also consider the frameworks adaptability to varying project scopes. Ensuring that all relevant stakeholders are consistently included, regardless of project size or complexity, will be key to its widespread applicability."*

iii. Feasibility – Evaluating the Practicality and Implement ability of the Framework:

The quantity surveyors and project manager discuss the feasibility of the FIDSAH framework, emphasizing its practical foundation for assessing relationships. E04 notes, *"The FIDSAH model provides a practical foundation for assessing relationships. However, incorporating a more quantitative approach to measuring the effectiveness of these relationships could add even greater value and precision to the model."* E03 expands on this idea, highlighting the model's potential for ongoing project assessments, stating, *"By enabling regular evaluations of collaboration dynamics, the model can facilitate timely adjustments and improvements throughout the project lifecycle. This proactive approach could significantly enhance overall project outcomes."*

iv. Generality – Assessing the Framework's Applicability, Relevance, and Contextual Fit:

The experts' participants collectively agree on the applicability and relevance of the FIDSAH framework within the context of infrastructure project delivery systems. They emphasize the critical importance of effective stakeholders' communication and collaboration, which the framework addresses. One architect summarizes, *"Ultimately, the success of any project or policy implementation hinges on the quality of communication and collaboration among stakeholders. The FIDSAH model's emphasis on these aspects is commendable, but it must be complemented by continuous improvement efforts and training sessions to foster these skills across teams."*

In conclusion, the focus group discussion aligns well with the four validation criteria, providing insights into the FIDSAH framework's comprehensiveness, usefulness, feasibility, and generality. The participants' comments and suggestions highlight the framework's strengths while also identifying areas for enhancement, such as incorporating visual aids, adaptability to varying project scopes, and quantitative approaches to measuring relationship effectiveness. Overall, the focus group validates the framework's potential to drive improvements in project efficiency, stakeholder satisfaction, and overall success within the context of infrastructure project delivery systems.

6.5 Summary, Finding and, Validation Outcome.

The validation outcome of the FIDSAH framework, based on a focus group discussion with architects, engineers, quantity surveyors, and project managers, confirms its potential to enhance infrastructure project delivery systems. The framework is generally **clear and understandable**, with suggestions for incorporating visual aids and a glossary of technical terms to further improve **comprehension**. Its usefulness lies in its ability to identify stakeholders, delineate responsibilities, and adapt to varying project scopes. The framework provides a practical foundation for assessing relationships, with recommendations for quantitative metrics and regular evaluations to facilitate improvements throughout the project lifecycle. Its applicability and relevance to infrastructure projects are evident, emphasizing the importance of effective communication and collaboration among stakeholders. Continuous improvement efforts and training sessions are necessary to complement the framework and foster these skills across teams. By addressing the identified areas for improvement, the FAHPI framework demonstrates its potential to enhance project efficiency, stakeholder satisfaction, and overall success in the context of infrastructure project delivery systems.

6.6 Development of Framework

The input stage is crucial because it sets the foundation for the entire framework. This is where you gather all the necessary information, data, and resources that will be used throughout the process. It's important to ensure that the input is accurate, relevant, and comprehensive, as it will directly impact the quality of the output.

Once you have all the required inputs, you move on to the process stage. This is where the real work happens, and the framework comes to life. The process stage involves various steps, procedures, and activities that transform the input into the desired output. It's essential to have a well-defined and structured process in place to ensure consistency, efficiency, and effectiveness. The process stage may involve multiple sub-processes, depending on the complexity of the framework and the specific requirements of the project.

Finally, the output stage is where you see the results of your efforts. This is the culmination of all the work done in the input and process stages, and it represents the final product or deliverable. The output should be carefully evaluated to ensure that it meets the desired quality standards and fulfils the intended purpose of the framework. It's also important to consider how the output will be used and distributed, as this will impact its overall effectiveness and impact.

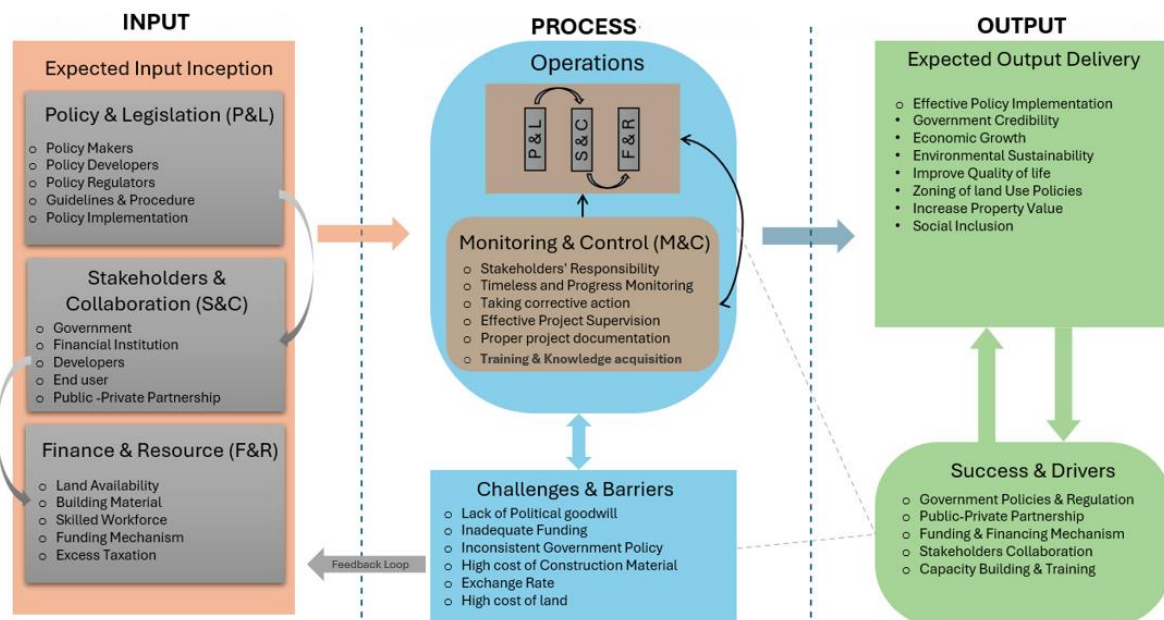


Figure 6.4: Developed Framework

6.7 Chapter Summary and Link

Chapter Six presents the development and validation of a framework for addressing housing challenges in Nigeria's South-South region. The Framework for Affordable Housing Policy Implementation (FAHPI) aims to assist policymakers and project planners in making informed decisions and overcoming policy implementation challenges. The framework emphasizes robust monitoring and control, effective stakeholder collaboration, and strategic management of finance and resources.

The chapter explores the interrelationships between the framework's components, highlighting the complexity and interdependence of factors influencing successful policy implementation. The validation process involved semi-structured interviews with industry experts, focusing on comprehensiveness, usefulness, feasibility, and generality. The validation outcomes confirm the framework's potential to enhance infrastructure project delivery systems, with suggestions for further improvements.

Chapter Seven will present conclusions and recommendations based on the research findings and the developed framework. It will discuss the study's implications for theory and practice, address limitations, and propose future research directions to enhance affordable housing policy implementation in Nigeria and beyond.

7 CHAPTER SEVEN: CONCLUSION, RECOMMENDATION AND FURTHER STUDY

7.1 Chapter Overview

The IDS adoption framework underwent a rigorous development and validation process in the preceding chapter. The current chapter aims to provide a concise overview of the thesis results and present the conclusions drawn from the study. It will encompass the key findings related to the research objectives, highlighting the work's academic and practical implications. Furthermore, the chapter will address the limitations encountered during the study and propose recommendations for future research endeavours in this field.

7.2 Research Thesis Summary

The findings from this study demonstrate the importance of stakeholder engagement and collaboration within affordable housing schemes, a major economic activity in Nigeria. The results highlight the associated impacts of these schemes, particularly in the south-south region. However, the study also reveals that the challenges and barriers encountered during the implementation of housing policies have increased. It is important to note that while the study focused on specific projects, these are not the only housing initiatives in the region. The findings suggest that effective stakeholder collaboration and addressing implementation challenges are crucial for the success of affordable housing policies in the south-south region and Nigeria. hence the importance of the Research Aim and Objectives.

The research, as outlined in Chapter One, aimed to develop an effective Infrastructure Delivery Systems Framework for Affordable Housing Policy Implementation in Nigeria (see section 1.4). By identifying gaps in the existing policy implementation of IDSs for affordable housing provision in the region (see section 1.3), the study concluded that these gaps, along with the inadequacy or absence of a specific Affordable Housing policy for low-income earners, must be addressed. Improving these aspects is crucial for creating better conditions for the end-users in the states, ultimately enhancing the effectiveness of affordable housing policy implementation in the region.

The five objectives of this study give confidence to the overall aim of this research, which is to develop a framework by which Infrastructure Delivery systems for affordable Housing policies in Nigeria can be effective. This was achieved through the medium of semi-structured literature review, interviews with key stakeholders, and relevant document reviews of the scope and process of the project in the southern region of Nigeria, enabling the researcher to achieve the overall aim of this study. In that case will come out with Framework Development and Implications.

The framework's development (see section 6.3) will guide policymakers and the government in improving existing IDS policies for Housing in the construction sector. The framework provides a structured approach to understanding and addressing the complex issues surrounding the implementation of the affordable housing policy in Nigeria. The framework offers a comprehensive view of the factors influencing policy effectiveness by identifying key components such as policy and legislation, stakeholder collaboration, finance and resources, monitoring and control, challenges and barriers, and success drivers.

The implications of this study extend beyond academia, as the developed framework has the potential to significantly impact practice. Policymakers, government officials, and industry stakeholders can use the framework to guide their decision-making processes, ensuring that affordable housing policies are well-designed, effectively implemented, and responsive to the needs of low-income earners in the region. By addressing the identified gaps and challenges, the framework can create more inclusive and sustainable affordable housing solutions in the south-south region and Nigeria.

Table 7.1: Attainment of Objectives

Source: Autor, 2024

OBJECTIVES	REVIEW OF LITERATURE	REVIEW OF DOCUMENTS	INTERVIEWS	MINI FOCUS GROUP
To examine the challenges of existing policies and reforms of affordable housing schemes	✓			
To Identify the factors influencing IDS within Nigerian Affordable housing Scheme	✓	✓	✓	
To examine the drivers of the delivery system of affordable housing schemes	✓		✓	
To Investigate the monitoring and control system in the delivery of affordable housing scheme	✓	✓	✓	
To assess the cause of the failure of the infrastructure delivery system for affordable housing schemes.	✓		✓	
To develop a framework for an affordable housing Policy Implementation scheme in Nigeria.	✓			✓

Table 7.1 shows how each goal can be achieved, how the plan will be put into action. The four main tools and strategies used are academic papers that have been reviewed by peers and reports from the business world. Data will also be collected using documents from the organisation current state of art being studied, and interview. The next section will review the Objectives, Questions and Propositions.

7.3 Reflection on the Objectives

To fulfil the aim of the research, six specific objectives were established at the outset of this study. The subsequent sections will present detailed discussions on how each of these research objectives has been successfully achieved.

7.3.1 Reflection of Objective One

To examine the challenges of existing policies and reforms of affordable housing schemes

The study's first objective was to explore the current state of the Nigerian construction industry (NCI) and the concept of integrated delivery systems (IDS). This objective was achieved through a comprehensive two-part literature review.

The first part focused on the NCI, providing insights into its nature and the challenges faced by the industry. The review established the global and national importance of affordable housing for economic development and the need for housing initiatives to improve standards and productivity within the industry, particularly in project delivery.

Notable challenges hampering the NCI, as identified in the literature, include high construction material costs,(Omopariola et al., 2024)inadequate government systems and policy implementation, insufficient regulations, limited technical skills, restricted access to funds, delays in project delivery, and a high level of project failures in the region (Egwim et al., 2023). The reasons for failed affordable housing in Nigeria were discussed, and the review concluded by highlighting the outcome of failed policy implementation on IDS in Nigeria. However, the first part emphasized the need to implement more effective and efficient project delivery methods and practices (Mohammed, 2024).

The second part of the literature review explored the current state of the art of IDS frameworks and models related to IDS. These were evaluated and contextualized to align with the study. Understanding the theories, frameworks, and models related to IDS was crucial for (i) identifying the key factors and their relationship to consider when adopting IDS and (ii) developing the conceptual model for the research evaluation.

Based on this comprehensive literature review, the next objective was To investigate the roles of stakeholders in the delivery of affordable housing schemes.

7.3.2 Reflection of Objective Two

To Identify the factors influencing IDS within Nigerian Affordable housing Scheme.

The second objective, identifying the key factors influencing the adoption of Integrated Delivery Systems (IDS) within the Nigerian Affordable Housing Scheme, was crucial for developing the conceptual framework for evaluating the study. The research aimed to create a framework for understanding IDS within the Nigerian Affordable Housing Sector. A comprehensive and systematic literature review related to IDS adoption was conducted to achieve this objective.

The study identified ten components clustered under five categories influencing IDS adoption within the Nigerian Affordable Housing Scheme: Policy and Legislation, Stakeholder Collaboration, Finance and Resources, Monitoring and Control, and Challenges and Barriers. At the conceptual phase, these categories had approximately nine sub-themes.

Furthermore, empirical evidence was collected and analysed through semi-structured interviews and documentation to reinforce the factors identified during the literature review. During the interviews, respondents had the flexibility to confirm and identify the key factors. Additionally, respondents were allowed to suggest additional factors that influence IDS adoption within their particular project and the Nigerian Federal Affordable Housing Provision Initiative (FAHPI).

In summary, the study identified ten components clustered under five categories, with approximately nine sub-themes at the conceptual phase, that influence the adoption of IDS within the Nigerian Affordable Housing Scheme. These factors were reinforced through empirical evidence gathered from semi-structured interviews and documentation, allowing respondents to confirm, identify, and suggest additional factors based on their experiences and projects within the Nigerian FAHPI.

7.3.3 Reflection of Objective Three & Four

To examine the drivers of the delivery system of affordable housing schemes. To Investigate the monitoring and control system in the delivery of affordable housing scheme

This objective was achieved through two steps: (i) the analysis of qualitative semi-structured interviews and (ii) the observation of project documents. Objectives 3 and 4 aimed at providing an understanding of the project's legislative context and the background of monitoring and controlling the project process. This established empirical evidence to validate the conceptual framework of the identified factors.

The interview data was analyzed using NVivo, a software that facilitates graphical analysis of constructs within a model. The conceptual model was tested for validity, and the relationships between the factors within the model were also analyzed. The outcome of the survey analysis provided insights into the level of influence of the identified factors.

Furthermore, the participants' demographic information facilitated an understanding of how each cluster differed regarding their perception and comprehension of the factors influencing the IDS adoption process. Overall, the qualitative analysis outcome presented an in-depth understanding of the IDS adoption process and established a detailed analysis and discussion of the relationships between each component influencing the IDS adoption process within the Nigerian Federal Affordable Housing Provision Initiative (FAHPI).

Consequently, achieving this objective was essential to fulfilling the aim of this research, as it provided empirical validation and a comprehensive understanding of the factors and their interrelationships in the context of IDS adoption within the Nigerian FAHPI.

7.3.4 Reflection of Objective Five

To assess the cause of the failure of the infrastructure delivery system for affordable housing schemes.

Objective Five of the thesis explored the reasons behind the failures of infrastructure delivery systems for affordable housing schemes, aiming to unravel the complexities hindering effective policy implementation. The literature review identified critical barriers like political interference, inconsistent government policies, inadequate financing, high construction costs, and excessive taxation, which were further examined through field research and interviews.

Political interference disrupts project continuity and effectiveness, with agendas prioritising short-term gains over long-term housing solutions. Inconsistent policies due to political shifts create an unstable environment, deterring private sector participation crucial for sustainable housing. With budgets falling short of comprehensive costs, inadequate financing leads to abandoned or compromised quality projects. Rising construction material costs further strain project budgets.

Excessive taxation increases overall project costs, rendering affordable housing financially unfeasible for developers and end-users. Field research through stakeholder interviews validated these findings, providing firsthand insights into practical challenges and affirming the theoretical barriers. This comprehensive approach highlighted the complex interplay of factors that need attention to improve the effectiveness of the affordable housing policy.

7.3.5 Reflection of Objective Six

To develop and validate a framework for an affordable housing Policy Implementation scheme in Nigeria.

The final objective of the study was to validate the Framework for Affordable Housing Policy Implementation (FAHPI), achieved through mini-focus group interviews with six IDS experts from three projects in Nigeria's South-South region. To ensure that the FAHPI met its goals, four validation criteria were established: comprehension (clarity and precision of the FAHPI), usefulness (its benefits to affordable housing policy),

feasibility (practicality and implementability), and generality (applicability and relevance to other regions). The validation involved online semi-structured interviews with industry experts who reviewed a prototype of the framework, including an initial diagram. This approach ensured deep understanding and generated substantive, reliable feedback. The online interviews accommodated the experts' time constraints and preferences, with responses collected within a day. The feedback was analysed using thematic analysis, confirming the framework's effectiveness and adaptability in addressing the challenges of affordable housing in the targeted region.

The research uncovered significant patterns of malpractice that systematically undermined project delivery in the affordable housing sector. In procurement processes, irregular practices included non-transparent bidding systems, multiple company submissions from single entities, and deliberate disqualification of qualified competitors to favor pre-selected contractors. Financial irregularities manifested through unexplained payment delays, questionable variations in project costings, and irregular patterns of fund disbursement that often led to premature depletion of project resources.

Contract administration and quality control revealed further systemic issues, including deviations from specified material standards, approval of substandard work, and inconsistencies in quality control documentation. Project monitoring displayed significant gaps, with falsified supervision reports and irregular inspection patterns. These practices collectively contributed to compromised construction quality and, ultimately, project abandonment.

The findings highlight the urgent need for enhanced oversight mechanisms, including digital procurement systems, stricter enforcement of existing regulations, and regular forensic audits. These systemic issues are presented without identifying specific projects or individuals, maintaining research ethics while providing crucial insights into implementation challenges in affordable housing delivery.

7.4 Contribution to Knowledge

This study significantly contributes to academic research and practical applications for effective Affordable Housing policy implementation.

- 1) This study sheds light on the inadequate policy implementation that hinders successful stakeholder engagement in PPP Affordable Housing Schemes. By

identifying challenges and barriers through literature review, this research contributes to existing knowledge and aids other scholars in better comprehending the Infrastructure Delivery for Affordable Housing policy implementation. The findings serve as a valuable reference for future studies and policy improvements in the field of affordable housing.

2) This study presents a comprehensive framework that guides organizations in conducting effective stakeholder engagement for Affordable Housing projects. It identifies key stakeholders to involve at various project phases and outlines the levels of collaboration required. The framework also highlights the major stakeholders that should be engaged for successful collaboration at different levels. This research provides a practical tool for organizations to navigate stakeholder engagement in Affordable Housing initiatives.

3) The FAHPI framework, designed for government and private sector entities in the construction industry, guides housing policy implementation through a comprehensive six-element process. It initiates input and performance metrics, oversees operations, and evaluates outputs across key areas such as policy, stakeholder engagement, finance, monitoring, and control. The framework aims to achieve effective policy implementation, government credibility, economic growth, environmental sustainability, improved quality of life, land use policies, and increased property value.

4) This study identifies the challenges and barriers in infrastructure delivery systems and policy implementation for affordable housing. The findings contribute to the existing literature, enhancing the understanding of these obstacles and their impact on stakeholder engagement. By presenting strategies to mitigate the negative influence of these challenges and barriers, the research provides valuable insights for achieving successful project delivery through effective stakeholder engagement, ultimately leading to positive outcomes in affordable housing initiatives.

7.5 Strategic Distribution of Research Outcomes

The dissemination of this study's findings to policy makers and private investors can be effectively achieved through multiple strategic channels. At the national level, engagement with National Executives presents a crucial opportunity to incorporate the research findings into the building code of law. This integration would ensure that the

lessons learned from failed projects become embedded in regulatory frameworks, potentially preventing similar failures in future construction projects and establishing stronger guidelines for project implementation.

Professional conferences, particularly the Bi-annual General Meeting (BGM), serve as an ideal platform for sharing research outcomes with diverse stakeholders. These gatherings provide a unique environment where research findings can be presented directly to key decision-makers in the construction industry. The interactive nature of such conferences enables immediate feedback, discussion, and potential adoption of recommendations by industry professionals who can implement changes in their respective organizations.

Personal experience has demonstrated the effectiveness of conference presentations in reaching target audiences. Through presenting the thesis findings at various conferences, direct engagement was achieved with researchers, policy makers, and investors simultaneously. This multi-stakeholder approach ensures that the research insights reach those who can influence both policy decisions and investment strategies in the construction sector. The face-to-face interaction at these events facilitates deeper understanding of the research implications and promotes active dialogue about implementation strategies

7.6 Recommendation

The study confirmed the inadequacy of implementing affordable housing policies in the Nigerian construction industry (NCI). Based on experts' recommendations, the improved policies should prioritize the following:

Thorough Planning:

- Conduct comprehensive feasibility and viability studies to assess housing needs through censuses and demographic assessments before initiating affordable housing projects. This ensures projects are appropriately sized and designed to meet the target population's specific needs.
- Analyze financial feasibility to ensure projects are economically viable and sustainable, regardless of changes in government leadership.

Robust Legal Framework:

- Establish a strong legal framework to ensure project continuity across different government tenures, protect investments, and maintain policy consistency.
- This framework should bind all parties involved, including government bodies, private developers, and financial institutions, ensuring commitment and accountability throughout the project lifecycle.

Effective Project Management:

- Adopt a phased project implementation approach to manage risks and allocate resources effectively, allowing for adjustments based on real-time feedback.
- Hire qualified professionals to manage projects, minimising government interference in day-to-day operations while ensuring oversight and strategic direction.

Mitigating Project Failures:

- Ensure continuous government monitoring and involvement to promptly address deviations from plans and mitigate risks early in the project cycle.
- Promote sincerity and transparency in project intentions, ensuring genuine community benefit rather than political gains, to increase public support and reduce the likelihood of discontinuation by subsequent administrations.

Accessible Financing:

- Enhance the capacity and reach of institutions like the Federal Mortgage Bank to provide adequate financing options to a broader population segment, including revising loan amounts, conditions, and accessibility for non-government employees.

Address Construction Material Costs:

- Explore strategies to stabilise the prices of construction materials, possibly through subsidies, tax reliefs, or engaging with suppliers to discuss price stabilization measures.
- Support research into cheaper construction materials to reduce overall project costs.

Increase Land Availability:

- Implement policies to make land available and accessible to private investors for housing development, streamlining land acquisition processes and providing necessary infrastructure like roads and utilities.

Implementing these strategies can significantly improve the implementation and success rate of affordable housing projects in Nigeria, contributing to the nation's socio-economic stability and the well-being of its citizens.

7.7 Areas Further Research Study Required

This doctoral study has provided valuable insights into the infrastructure delivery systems (IDS) for affordable housing policy implementation in Nigeria's South-South Region. The Framework for Affordable Housing Policy Implementation (FAHPI) developed through this research offers a comprehensive approach to addressing key challenges. However, there are several areas where further research could significantly enhance understanding and improve implementation practices. In light of the research constraints, such as time, resources, scope, and methodology, it is crucial to highlight future research areas that have emerged from this study. The following recommendations for further research are proposed:

- Expanding the geographical scope: While this study focused on Nigeria's South-South Region, future research could explore the applicability of the FAHPI in other regions of the country or even in other developing nations facing similar affordable housing challenges.
- Investigating the role of private sector participation: Further research could delve into the potential benefits and challenges of increased private sector involvement in affordable housing policy implementation, as well as strategies for fostering effective public-private partnerships.
- Assessing the impact of technology on affordable housing delivery: As technology continues to advance, it would be valuable to examine how innovative technologies, such as prefabricated construction methods or smart home systems, could be leveraged to improve the efficiency and affordability of housing delivery.
- Exploring sustainable and green building practices: Given the growing importance of environmental sustainability, future research could investigate

the integration of sustainable design principles and green building practices into affordable housing projects, evaluating their impact on long-term affordability and environmental performance.

- Analyzing the socio-economic impacts of affordable housing: Further research could assess the broader socio-economic effects of successful affordable housing policy implementation, such as improvements in health outcomes, educational attainment, and economic mobility for residents.

Despite addressing these additional research areas, future studies can build upon the findings of this doctoral study and contribute to a more comprehensive understanding of effective infrastructure delivery systems for affordable housing policy implementation.

7.8 Chapter Summary

This chapter summarises the research thesis and highlights how it has achieved its objectives through literature reviews, interviews, and analysis of policy documents. These activities have increased our understanding of existing affordable housing policies in Nigeria and highlighted the urgent need to improve them. The chapter also discusses the research's theoretical and practical contributions, provides expert recommendations, and identifies areas for further study.

The study achieved its aim by identifying 12 key factors related to the adoption process of the Infrastructure Delivery System (IDS) and integrating them into a comprehensive framework. This framework helps us better understand the adoption of IDS within the Nigerian Framework for Affordable Housing Policy Implementation (FAHPI). By addressing a gap in research concerning the IDS adoption process in Nigerian FAHPI, this thesis has significantly contributed to academic knowledge.

Additionally, the study has made substantial practical contributions. It has provided Nigerian FAHPI with a robust framework that describes and guides the IDS adoption process within the context of Nigerian Affordable Housing. This framework is a valuable tool for organisations as they navigate the complexities of implementation, thereby improving the effectiveness of affordable housing initiatives in Nigeria.

8 REFERENCES

- Abdul Nabi, M., & El-adaway, I. H. (2021). Understanding the key risks affecting cost and schedule performance of modular construction projects. *Journal of Management in Engineering*, 37(4), 04021023.
- Abdullahi, A., Usman, H., & Ibrahim, I. (2018). Determining house price for mass appraisal using multiple regression analysis modeling in Kaduna North, Nigeria. *ATBU Journal of Environmental Technology*, 11(1), 26-40.
- Abisuga, A. O., & Okuntade, T. F. (2020). The current state of green building development in Nigerian construction industry: policy and implications. In *Green Building in Developing Countries* (pp. 129-146). Springer.
- Abubakar, I., Dalglish, S. L., Angell, B., Sanuade, O., Abimbola, S., Adamu, A. L., Adetifa, I. M., Colbourn, T., Ogunlesi, A. O., & Onwujekwe, O. (2022). The Lancet Nigeria Commission: investing in health and the future of the nation. *The Lancet*, 399(10330), 1155-1200.
- Adabre, M. A., & Chan, A. P. (2019). Critical success factors (CSFs) for sustainable affordable housing. *Building and Environment*, 156, 203-214.
- Adediran, A., & Windapo, A. O. (2017). THE INFLUENCE OF GOVERNMENT TARGETED PROCUREMENT STRATEGIES ON THE GROWTH PERFORMANCE OF CONSTRUCTION SMALL AND MEDIUMSIZED CONTRACTORS (SMCs) IN SOUTH AFRICA. *International Journal of Construction Supply Chain Management*, 7(3), 151-164.
- Adeiza, A. (2021). Business Environment, Trade, Competitiveness And Product Space Mapping (BETCPSM).
- Adu, E. T., & Opawole, A. (2020). Assessment of performance of teamwork in construction projects delivery in South-Southern Nigeria. *Journal of Engineering, Design and Technology*, 18(1), 230-250. <https://doi.org/10.1108/JEDT-01-2019-0025>
- Ahmed, Y., & Sipan, I. A. B. (2019). Critical success factors of public private partnership for affordable housing in Nigeria. *International Journal of Recent Technology and Engineering*, 8, 57-69.
- Ahmed, Y., & Sipan, I. A. B. (2020). Public Private Partnership for Affordable Housing in Abuja Nigeria: A Review. *International Journal of Psychosocial Rehabilitation*, 24(02), 2044-2058.
- Ahsan, K., & Gunawan, I. (2010). Analysis of cost and schedule performance of international development projects. *International Journal of Project Management*, 28(1), 68-78.
- Aibinu, A., & Jagboro, G. (2002). The effects of construction delays on project delivery in Nigerian construction industry. *International journal of project management*, 20(8), 593-599.
- Akhund, M. A., Imad, H. U., Memon, N. A., Siddiqui, F., Khoso, A. R., & Panhwar, A. A. (2018). Contributing factors of time overrun in public sector construction projects. *Engineering, Technology Applied Science Research*, 8(5), 3369-3372.
- Akinsiku, O., Akintola, A., Ameh, O., & Ige, A. (2014). Contributions of the Construction Project Team to Cost Overruns: The Contractors' Perspective. Construction Research Congress 2014: Construction in a Global Network,
- Alam, M. K. (2021). A systematic qualitative case study: questions, data collection, NVivo analysis and saturation. *Qualitative Research in Organizations and Management: An International Journal*, 16(1), 1-31.
- Alteneiji, K., Alkass, S., & Abu Dabous, S. (2020). A review of critical success factors for public-private partnerships in affordable housing. *International Journal of System Assurance Engineering and Management*, 11(6), 1192-1203.
- Amadi, C., Carrillo, P., & Tuuli, M. (2014). Stakeholder management in public private partnership projects in Nigeria: towards a research agenda.
- Anigbogu, N., & Shwarka, M. (2011). Evaluation of the impact of the public procurement reform program on combating corrupt practices in public building projects delivery in Nigeria. *Environtech Journal*, 1(2), 43-51.

- Arogunjo, E. O., & Markus, E. D. (2019). Optimal path for an energy-efficient natural gas transmission Mainline: A case study of Escravos Southern Nigeria. AIUE Proceedings of the 17th Industrial and Commercial Use of Energy Conference,
- Awuzie, B. O. (2014a). *A viable infrastructure delivery systems model for achieving socio-economic benefits in the Nigerian oil and gas industry* University of Salford].
- Awuzie, B. O. (2014b). *A viable infrastructure delivery systems model for achieving socio-economic benefits in the Nigerian oil and gas industry*. University of Salford (United Kingdom).
- Awuzie, B. O., & McDermott, P. (2015). A conceptual model for evaluating infrastructure-based temporary multi-organisations. *Built Environment Project and Asset Management*, 5(1), 103-120. <https://doi.org/10.1108/bepam-10-2013-0052>
- Awuzie, B. O., & McDermott, P. (2019b). Infrastructure Delivery Systems: An Organisational Viability Perspective. In B. O. Awuzie & P. McDermott (Eds.), *Infrastructure Delivery Systems: Governance and Implementation Issues* (pp. 49-87). Springer Singapore. https://doi.org/10.1007/978-981-13-7291-9_3
- Ayal, M. (2005). *Effect of Scope Changes on Project Duration Extensions*. Tel Aviv University.
- Ayodele, I., & Dominion, A. (2015). Public private partnership as a veritable means of housing provision in Bauchi, Nigeria. *International Journal of Social Sciences and Humanities Research*, 3(1), 415-421.
- Azungah, T. (2018). Qualitative research: deductive and inductive approaches to data analysis. *Qualitative research journal*, 18(4), 383-400.
- Babatunde, S. O., Perera, S., & Adeniyi, O. (2018). Identification of critical risk factors in public-private partnership project phases in developing countries: A case of Nigeria. *Benchmarking: An International Journal*.
- Bacon, M. (2012). *Pragmatism: an introduction*. Polity.
- Bakharia, A., Corrin, L., De Barba, P., Kennedy, G., Gašević, D., Mulder, R., Williams, D., Dawson, S., & Lockyer, L. (2016). A conceptual framework linking learning design with learning analytics. Proceedings of the sixth international conference on learning analytics & knowledge,
- Banda, M. L., & Fulton, S. (2017). Litigating climate change in national courts: recent trends and developments in global climate law. *Envtl. L. Rep. News & Analysis*, 47, 10121.
- Bank, W. (2023). *World Development Indicators*. Retrieved 5 May from <https://data.worldbank.org/country/nigeria>
- Benz, C. R., Ridenour, C. S., & Newman, I. (2008). *Mixed methods research: Exploring the interactive continuum*. SIU Press.
- Blaikie, N. (2018). Confounding issues related to determining sample size in qualitative research. *International Journal of Social Research Methodology*, 21(5), 635-641.
- Bloom, D., Finlay, J., Humair, S., Mason, A., Olaniyan, O., & Soyibo, A. (2010). Prospects for economic growth in Nigeria: A demographic perspective. IUSSP Seminar on Demographics and Macroeconomic Performance, Paris, France,
- Boadi, R. (2020). *A best practice framework for Public-Private Partnerships (PPPs) in road projects: The case of Ghana*. University of Salford (United Kingdom).
- Boardman, A. E., & Vining, A. R. (2012). The political economy of public-private partnerships and analysis of their social value. *Annals of public and cooperative economics*, 83(2), 117-141.
- Bond, J. (2016). Infrastructure in Africa. *Global journal of Emerging market Economies*, 8(3), 309-333.
- Bryman, A. (1984). The debate about quantitative and qualitative research: a question of method or epistemology? *British journal of Sociology*, 75-92.
- Bui, S., Cardona, A., Lamine, C., & Cerf, M. (2016). Sustainability transitions: Insights on processes of niche-regime interaction and regime reconfiguration in agri-food systems. *Journal of rural studies*, 48, 92-103.
- Business, A. (1996). Special report on Asia's infrastructure boom. *Asian Business*, 9, 60-69.
- Butler, A. E., Copnell, B., & Hall, H. (2018). The development of theoretical sampling in practice. *Collegian*, 25(5), 561-566.

- Cambini, C., & Jiang, Y. (2009). Broadband investment and regulation: A literature review. *Telecommunications Policy*, 33(10-11), 559-574.
- Cho, J. Y., & Lee, E.-H. (2014). Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences. *Qualitative Report*, 19(32).
- Cobbinah, J. F., Aigbavboa, C. O., Thwala, W. D., & Banson, K. E. (2020). A Systems Thinking Approach to Construction Project Management. In C. Aigbavboa & W. Thwala, *The Construction Industry in the Fourth Industrial Revolution* Cham.
- Cooper, J. M. (2021). The Science of Legal Synthesis. *Forthcoming, St. John's Law Review*, 95(2).
- Crawford, L. H., & Helm, J. (2009). Government and governance: The value of project management in the public sector. *Project management journal*, 40(1), 73-87.
- Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.
- Cuomo, A., Di Modica, G., Distefano, S., Puliafito, A., Rak, M., Tomarchio, O., Venticinque, S., & Villano, U. (2013). An SLA-based broker for cloud infrastructures. *Journal of grid computing*, 11(1), 1-25.
- Daly, G., & Lund, B. (2020). Housing policy. In *Social Policy* (pp. 405-436). Routledge.
- Debrah, Y. A., & Ofori, G. (2001). Subcontracting, foreign workers and job safety in the Singapore construction industry. *Asia Pacific Business Review*, 8(1), 145-166.
- Denscombe, M. (2017). *EBOOK: The good research guide: For small-scale social research projects*. McGraw-Hill Education (UK).
- Dosumu, O. S., & Aigbavboa, C. O. (2017). Impact of design errors on variation cost of selected building project in Nigeria. *Procedia Engineering*, 196, 847-856.
- Duga Jamus, E. (2020). *A Framework for Sustainable Procurement Practice in the Irish Construction Industry* [PhD, Technological University Dublin]. <https://arrow.tudublin.ie/engdoc>
- Easton, G. (2010). Critical realism in case study research. *Industrial Marketing Management*, 39(1), 118-128.
- Ebekozien, A. (2020a). Community participation in affordable housing provision in developing cities: A study of Nigerian cities. *Journal of Human Behavior in the Social Environment*, 30(7), 918-935.
- Ebekozien, A. (2020b). Corrupt acts in the Nigerian construction industry: is the ruling party fighting corruption? *Journal of Contemporary African Studies*, 38, 1-18. <https://doi.org/10.1080/02589001.2020.1758304>
- Ebekozien, A., Abdul-Aziz, A.-R., & Jaafar, M. (2021). Low-cost housing policies and squatters struggles in Nigeria: the Nigerian perspective on possible solutions. *international journal of construction management*, 21(11), 1088-1098.
- Ebekozien, A., Samsurijan, M. S., Aigbavboa, C., Awe, E. O., Amadi, G. C., & Emuchay, F. E. (2023). Unravelling the encumbrances in procurement management of Nigeria's infrastructure development: pitfalls and prospects of projects. *Property Management*, 41(1), 20-40.
- Ebuh, G. U., Ezike, I. B., Shitile, T. S., Smith, E. S., & Haruna, T. M. (2019). The Infrastructure–Growth Nexus in Nigeria: A Reassessment. *Journal of infrastructure development*, 11(1-2), 41-58. <https://doi.org/10.1177/0974930619872096>
- Egwim, C. N., Alaka, H., Toriola-Coker, L. O., Balogun, H., Ajayi, S., & Oseghale, R. (2023). Extraction of underlying factors causing construction projects delay in Nigeria. *Journal of Engineering, Design and Technology*, 21(5), 1323-1342.
- Eja, K. M., & Ramegowda, M. (2020). Government project failure in developing countries: a review with particular reference to Nigeria. *Global Journal of Social Sciences*, 19, 35-47.
- El-Gohary, N. M., Osman, H., & El-Diraby, T. E. (2006). Stakeholder management for public private partnerships. *International journal of project management*, 24(7), 595-604.
- Engwall, M. (2003). No project is an island: linking projects to history and context. *Research Policy*, 32(5), 789-808.
- Essien, E., & Cyrus, S. (2019). Detection of urban development in Uyo (Nigeria) using remote sensing. *Land*, 8(6), 102.
- Fellows, R. F., & Liu, A. M. (2021). *Research methods for construction*. John Wiley & Sons.

- Fidan, G., Dikmen, I., Tanyer, A. M., & Birgonul, M. T. (2011). Ontology for relating risk and vulnerability to cost overrun in international projects. *Journal of Computing in Civil Engineering*, 25(4), 302-315.
- Flyvbjerg, B. (2011). Case study. *The Sage handbook of qualitative research*, 4, 301-316.
- Gann, D. M., & Salter, A. J. (2000). Innovation in project-based, service-enhanced firms: the construction of complex products and systems. *Research Policy*, 29(7-8), 955-972.
- Glaeser, E. (2011). *Triumph of the city: How urban spaces make us human*. Pan Macmillan.
- Goodrick, D. (2020). *Comparative case studies* (Vol. 9). SAGE Publications Limited Thousand Oaks, CA, USA.
- Graue, C. (2015). Qualitative data analysis. *International Journal of Sales, Retailing & Marketing*, 4(9), 5-14.
- Gray, D. E. (2016). Doing research in the real world. In: Los Angeles: SAGE.
- Günhan, S., Şenol, G., & Doğan, S. Z. (2012). Non-verbal cues: improving communication in construction projects. 2012 ASEE annual conference program: final conference program and proceedings,
- Guo, S., Zheng, S., Hu, Y., Hong, J., Wu, X., & Tang, M. (2019). Embodied energy use in the global construction industry. *Applied Energy*, 256, 113838.
- Gurara, D., Klyuev, V., Mwase, N., & Presbitero, A. F. (2018). Trends and challenges in infrastructure investment in developing countries. *International Development Policy/ Revue internationale de politique de développement*(10.1).
- Hartlieb, S., & Silvius, G. (2016). Dealing with uncertainty in projects: what project management can learn from business development. *Project Management Development–Practice and Perspectives*, 14, 141.
- Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research*, 15(9), 1277-1288.
- Hunt, S. D., & Hansen, J. M. (2010). The philosophical foundations of marketing research: For scientific realism and truth. *The SAGE handbook of marketing theory*, 111-126.
- Hussain, S., Xuetong, W., & Hussain, T. (2020). Impact of Skilled and Unskilled Labor on Project Performance Using Structural Equation Modeling Approach. 10(1), 2158244020914590. <https://doi.org/10.1177/2158244020914590>
- Ibem, E. O. (2011). Public-private partnership (PPP) in housing provision in Lagos Megacity Region, Nigeria. *International journal of housing policy*, 11(2), 133-154.
- Ibragimova, A., Wang, Y., & Ivanov, M. (2021). Infrastructure development in Africa's regions: investment trends and challenges. E3S Web of Conferences,
- Ikechukwu, A. C., Fidelis, I. E., & Kelvin, O. A. (2017). Causes and Effects of Cost Overruns in Public Building Construction Projects Delivery, In Imo State, Nigeria. *J Bus Mgt*, 7, 13-20.
- Imenda, S. (2014). Is there a conceptual difference between theoretical and conceptual frameworks? *Journal of social sciences*, 38(2), 185-195.
- Jackson, M. C. (2003). Systems thinking: Creative holism for managers.
- Jackson, M. C. (2007). *Systems approaches to management*. Springer Science & Business Media.
- James, W. (2020). Pragmatism. In *Pragmatism* (pp. 53-75). Routledge.
- Johnson, J. L., Adkins, D., & Chauvin, S. (2020). A review of the quality indicators of rigor in qualitative research. *American journal of pharmaceutical education*, 84(1), 7120.
- Johnson, R. M., & Babu, R. I. I. (2020). Time and cost overruns in the UAE construction industry: a critical analysis. *International Journal of Construction Management*, 20(5), 402-411. <https://doi.org/10.1080/15623599.2018.1484864>
- Kapsali, M. (2011). Systems thinking in innovation project management: A match that works. *International journal of project management*, 29(4), 396-407.
- Kast, F. E., & Rosenzweig, J. E. (1972). General systems theory: Applications for organization and management. *Academy of management journal*, 15(4), 447-465.
- Kaushik, V., & Walsh, C. A. (2019). Pragmatism as a research paradigm and its implications for social work research. *Social sciences*, 8(9), 255.

- Kavirathna, C., Kawasaki, T., Hanaoka, S., & Matsuda, T. (2018). Transshipment hub port selection criteria by shipping lines: the case of hub ports around the bay of Bengal. *Journal of Shipping and Trade*, 3(1), 1-25.
- Kelly, L. M., & Cordeiro, M. (2020). Three principles of pragmatism for research on organizational processes. *Methodological innovations*, 13(2), 2059799120937242.
- Kerzner, H. (2017). *Project management: a systems approach to planning, scheduling, and controlling*. John Wiley & Sons.
- Kintsch, W. (1988). The role of knowledge in discourse comprehension: a construction-integration model. *Psychological review*, 95(2), 163.
- Kivunja, C. (2014). Do You Want Your Students to Be Job-Ready with 21st Century Skills? Change Pedagogies: A Pedagogical Paradigm Shift from Vygotskyian Social Constructivism to Critical Thinking, Problem Solving and Siemens' Digital Connectivism. *International journal of higher education*, 3(3), 81-91.
- Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. *International journal of higher education*, 6(5), 26-41.
- Kululanga, G., Kuotcha, W., McCaffer, R., & Edum-Fotwe, F. (2001). Construction contractors' claim process framework. *JOURNAL OF CONSTRUCTION ENGINEERING AND MANAGEMENT*, 127(4), 309-314.
- Leavy, P. (2022). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches*. Guilford Publications.
- Levy, S. M. (1996). *Build, operate, transfer: paving the way for tomorrow's infrastructure*. John Wiley & Sons.
- Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2011). Paradigmatic controversies, contradictions, and emerging confluences, revisited. *The Sage handbook of qualitative research*, 4(2), 97-128.
- Lyle, J., & Cushion, C. (2016). *Sport coaching concepts: A framework for coaching practice*. Routledge.
- Makinde, O. O. (2014). Housing delivery system, need and demand. *Environment, development and sustainability*, 16, 49-69.
- Mallach, A. (2020). *A decent home: Planning, building, and preserving affordable housing*. Routledge.
- Maqbool, R., & Sridhar, H. (2024). Governing Public–Private Partnerships of Sustainable Construction Projects in An Opportunistic Setting. *Project management journal*, 55(1), 86-101.
- May, C. R., Johnson, M., & Finch, T. (2016). Implementation, context and complexity. *Implementation Science*, 11(1), 1-12.
- Mele, C., Pels, J., & Polese, F. (2010). A brief review of systems theories and their managerial applications. *Service science*, 2(1-2), 126-135.
- Mertens, D. M. (2019). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods*. Sage publications.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage.
- Mohammed, K. A. a. P., A. A. (2024). Regulatory Framework Analysis in Nigerian Construction Industry. *Construction Law Journal*, 40(41), pp. 34-49.
- Moon, K., & Blackman, D. (2014). A guide to understanding social science research for natural scientists. *Conservation biology*, 28(5), 1167-1177.
- Munim, Z. H., & Schramm, H.-J. (2018). The impacts of port infrastructure and logistics performance on economic growth: the mediating role of seaborne trade. *Journal of Shipping and Trade*, 3(1), 1. <https://doi.org/10.1186/s41072-018-0027-0>
- Musa, A., & Jacob, O. N. (2021). Evaluation of challenges facing planning of special education in FCT, Abuja, Nigeria. *European Journal of Humanities and Educational Advancements*, 2(3), 31-37.
- Muthukrishna, M., & Henrich, J. (2019). A problem in theory. *Nature Human Behaviour*, 3(3), 221-229.
- Nawushao, M., Ng'ang'a, V., & Ng'ang'a, P. (2022). Public private partnership and implementation of affordable housing projects in Mombasa County, Kenya. *International Academic Journal of Human Resource and Business Administration*, 4(2), 64-83.
- Nedozi, F. O., Obasanmi, J. O., & Ighata, J. (2014). Infrastructural development and economic growth in Nigeria: Using simultaneous equation. *Journal of Economics*, 5(3), 325-332.

- Norris, P., & Van Es, A. A. (2016). *Checkbook elections?: Political finance in comparative perspective*. Oxford University Press.
- Odoyi, E. J., & Riekkinen, K. (2022). Housing policy: An analysis of public housing policy strategies for low-income earners in Nigeria. *Sustainability*, 14(4), 2258.
- Ojebode, A. J. (2016). *Public-private partnership (PPP) as a mechanism for the provision of affordable housing delivery in Nigeria* University of Brighton].
- Okwandu, P. A. G., & Mba, E. O. (2010). Construction Project Management In Nigeria: Challenges and the Way Forward. *Arc Construction Project Management*, 1(1), 2-9.
- Olowu, A. U. (2019). *Public policy and entrepreneurship performance: the divide and nexus in West Africa* Stellenbosch: Stellenbosch University].
- Olssen, M. (1996). Radical constructivism and its failings: Anti-realism and individualism. *British Journal of Educational Studies*, 44(3), 275-295.
- Omopariola, E. D., Albert, I., & Windapo, A. (2019). Appropriate drivers for sustainable construction practices on construction sites in Nigeria. Proceedings of the 10th West Africa Built Environment Research (WABER) Conference,
- Omopariola, E. D., Olanrewaju, O. I., Albert, I., Oke, A. E., & Ibiyemi, S. B. (2024). Sustainable construction in the Nigerian construction industry: unsustainable practices, barriers and strategies. *Journal of Engineering, Design and Technology*, 22(4), 1158-1184.
- Onungwa, I. O., & Uduma-Olugu, N. (2017). Building information modelling and collaboration in the Nigerian construction industry. *Journal of Construction Business and Management*, 1(2), 1-10.
- Osei-Kyei, R., & Chan, A. P. (2018). Comparative study of governments' reasons/motivations for adopting public-private partnership policy in developing and developed economies/countries. *International Journal of Strategic Property Management*, 22(5), 403-414.
- Oughton, E. J., Usher, W., Tyler, P., & Hall, J. W. (2018). Infrastructure as a complex adaptive system. *Complexity*, 2018.
- Owusu-Manu, D.-G., Jehuri, A. B., Edwards, D. J., Boateng, F., & Asumadu, G. (2019). The impact of infrastructure development on economic growth in sub-Saharan Africa with special focus on Ghana. *Journal of Financial Management of Property and Construction*.
- Oyeweso, S. (2011). Infrastructure Development in Contemporary Nigeria: Issues and Challenges. *Being Text of Paper Delivered at the 1st year remembrance of Late Engineer Bola Lashengbe at Osogbo*.
- Oyewunmi, O. A., & Olujobi, O. J. (2016). Transparency in Nigeria's oil and gas industry: Is policy re-engineering the way out? *International Journal of Energy Economics and Policy*, 6(3), 630-636.
- Pagliosa, M., Tortorella, G., & Ferreira, J. C. E. (2019). Industry 4.0 and Lean Manufacturing: A systematic literature review and future research directions. *Journal of Manufacturing Technology Management*, 32(3), 543-569.
- Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice*. Sage publications.
- Perifanis, N.-A., & Kitsios, F. (2023). Investigating the influence of artificial intelligence on business value in the digital era of strategy: A literature review. *Information*, 14(2), 85.
- Pfadenhauer, L. M., Gerhardus, A., Mozygemba, K., Lysdahl, K. B., Booth, A., Hofmann, B., Wahlster, P., Polus, S., Burns, J., & Brereton, L. (2017). Making sense of complexity in context and implementation: the Context and Implementation of Complex Interventions (CICI) framework. *Implementation Science*, 12(1), 1-17.
- Pinto, J. K. (2013). *Project management: achieving competitive advantage*. Pearson Boston, MA.
- Pourrostam, T., & Ismail, A. (2011). Study of methods for minimizing construction delays: evidences from a developing country. *Advanced Materials Research*,
- Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. *European journal of education studies*.
- Rahim, S., Javaid, N., Ahmad, A., Khan, S. A., Khan, Z. A., Alrajeh, N., & Qasim, U. (2016). Exploiting heuristic algorithms to efficiently utilize energy management controllers with renewable energy sources. *Energy and Buildings*, 129, 452-470.

- Rashid, Y., Rashid, A., Warraich, M. A., Sabir, S. S., & Waseem, A. (2019). Case study method: A step-by-step guide for business researchers. *International journal of qualitative methods*, 18, 1609406919862424.
- Ravitch, S. M., & Riggan, M. (2016). *Reason & rigor: How conceptual frameworks guide research*. Sage Publications.
- Reed, M. S., & Rudman, H. (2023). Re-thinking research impact: voice, context and power at the interface of science, policy and practice. *Sustainability Science*, 18(2), 967-981.
- Risman, B. J. (2018). *Gender as a social structure*. Springer.
- Robson, C. (2002). *Real world research: A resource for social scientists and practitioner-researchers*. Wiley-Blackwell.
- Rosenberg, G., Carhart, N., Edkins, A., & Ward, E. (2014). Development of a Proposed Interdependency Planning and Management Framework.
- Rowlinson, S., & Yip, B. (2017). COST EFFECTIVENESS OF SAFETY INITIATIVES IN THE HONG KONG CONSTRUCTION INDUSTRY. *Contemporary Ergonomics 2008: Proceedings of the International Conference on Contemporary Ergonomics (CE2008)*, 1-3 April 2008, Nottingham, UK,
- Sanni-Anibire, M. O., Mohamad Zin, R., & Olatunji, S. O. (2022). Causes of delay in the global construction industry: a meta analytical review. *International Journal of Construction Management*, 22(8), 1395-1407. <https://doi.org/10.1080/15623599.2020.1716132>
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality & quantity*, 52, 1893-1907.
- Saunders, M., Lewis, P., & Thornhill, A. (2009a). *Research methods for business students*. Pearson education.
- Saunders, M., Lewis, P., & Thornhill, A. (2009b). Understanding research philosophies and approaches. *Research methods for business students*, 4(106-135).
- Saunders, M., Lewis, P., & Thornhill, A. (2019). Research Onion. Research methods for business students. In: USA: Routledge. doi. org/10.1007/s13398-014-0173-7.2.
- Saunders, P. (2021). *A nation of home owners*. Routledge.
- Savin-Baden, M., & Major, C. (2023). *Qualitative research: The essential guide to theory and practice*. Routledge.
- Stufflebeam, D. L., & Coryn, C. L. (2014). *Evaluation theory, models, and applications* (Vol. 50). John Wiley & Sons.
- Taherdoost, H. (2016). Sampling methods in research methodology; how to choose a sampling technique for research. *How to choose a sampling technique for research* (April 10, 2016).
- Taherdoost, H., & Keshavarzsaleh, A. (2016). Critical factors that lead to projects' success/failure in global marketplace. *Procedia Technology*, 22, 1066-1075.
- Thomas, S., Richter, M., Lestari, W., Prabawaningtyas, S., Anggoro, Y., & Kuntoadji, I. (2018). Transdisciplinary research methods in community energy development and governance in Indonesia: Insights for sustainability science. *Energy research & social science*, 45, 184-194.
- Titmuss, R. M. (1974). *Essays on Social Policy An Introduction*. In: London.
- Usman, B. (2022). *A strategy for stakeholder engagement in public private partnership urban infrastructure provision in Nigeria*
- Wahyuni, D. (2012). The research design maze: Understanding paradigms, cases, methods and methodologies. *Journal of applied management accounting research*, 10(1), 69-80.
- Whitchurch, G. G., & Constantine, L. L. (1993). Systems theory. In *Sourcebook of family theories and methods: A contextual approach* (pp. 325-355). Springer.
- Wickens, C. D., & Carswell, C. M. (2021). INFORMATION PROCESSING. In *HANDBOOK OF HUMAN FACTORS AND ERGONOMICS* (pp. 114-158). <https://doi.org/https://doi.org/10.1002/9781119636113.ch5>
- worldometer. (2024). *Population of Nigerian and Historical* [Research]. <https://www.worldometers.info/world-population/nigeria-population/>

- Yazan, B. (2015). Three approaches to case study methods in education: Yin, Merriam, and Stake. *The qualitative report*, 20(2), 134-152.
- Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European journal of education*, 48(2), 311-325.
- Yin, R. K. (2009). *Case study research: Design and methods* (Vol. 5). sage.
- Yin, R. K. (2011). *Applications of case study research*. sage.
- Yin, R. K. (2014). Case study research. In: Thousand Oaks, CA: Sage.
- Yin, R. K. (2018). *Case study research and applications: Design and methods*. Sage Books.
- Zulch, B. (2014). Leadership communication in project management. *Procedia-Social and Behavioral Sciences*, 119, 172-181.
- Zuofa, T. (2014). Project failure: The way forward and panacea for development. *International journal of business and management*, 9(11).

9 APPENDICES

Appendix 9.1: Ethical Approval

PowerApps | Ethics App | Refresh View | Ethics Applications Home Screen | Applicant | e.j.ogbugo@edu.salford.ac.uk

Your Applications

ID & Status	Title	Type	Decision
1258 Review Complete	Infrastrature Delivery Systems-Governance and Implementation issues	Postgraduate Research	Resubmission
9218 Review Complete	DEVELOPMENT OF AN INFRASTRUCTURAL DELIVERY SYSTEMS MODEL THAT WILL ADDRESS CONSTRUCTION INDUSTRY BENEFITS IN NIGERIA	Postgraduate Research	Approved

New Application

Student Ethics Hub **Staff Ethics Hub** **Completed applications for reference**

Appendix 9.2: Research Information Sheet

Research Information Sheet

You are hereby invited to take part in this research. Before you decide, or not, to take part, please read the following information to help your decision. This information sheet has brief information about the research. If you have any questions about this research, please contact the researcher at the address below. Thank you for reading this.

About the research

Title: Infrastructure Delivery System for Failed Affordable Housing in The South-South Region of Nigeria

Student/researcher: Esozhim Joy Ogbugo

Email address: e.j.ogbugo@edu.salford.ac.uk

School: School of Science Engineering and Environment (SSEE)

The University of Salford

Supervisor: Prof. Peter McDermott

Course of Study: Doctoral (PhD)

Funding: Private Funding

Purpose of the Study

The study focuses on understanding the context of the social phenomenon of PPP government organizations towards Infrastructure delivery projects, particularly in the South-South region, where there is an extensive increase in failure in the provision of Affordable housing given the region's economic position.

Why was I selected as a participant?

You have been selected as one of the participants in this research because your organization has been recently involved in delivering Affordable Housing for the Construction Industry in Nigeria.

Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and will be asked to sign a consent form. Furthermore, if you decide to be involved now, but at a later stage decide to withdraw, you may do so, without giving a reason. Any data or information that you have to the researcher will be immediately discarded or destroyed after your withdrawal. If you refuse to take part at all, it will not affect your job or any circumstances affecting your employment. However, your experience in construction is valuable and will greatly

Appendix 9.3: Interview Guideline

Appendix 9.4: Organisation Invitation Letter

Organisation Invitation Letter

Dear Sir/Madam,

Invitation to participate in interviews: Infrastructure Delivery System Model for Failed Affordable Housing Projects in the South-South region of Nigeria.

I am a PhD student at the School of Science Engineering, and Environment at the University of Salford, Greater Manchester, in the United Kingdom. As part of the program requirements, I am undertaking an investigation that is geared at the development of a holistic understanding of the inherent processes involved in the delivery of new infrastructure in the country's Affordable Housing Industry.

The research principally aims to understand the impact, if any, of the various contractual interrelationships between stakeholders to an infrastructure delivery process on the attainment of Affordable Housing benefits such as the social Phenomenon and policy implementation particularly as it concerns XXX Project.

It is hoped that creating a vivid understanding would enable decision-makers to gain a comprehensive view of these interactions and hence lead to the development of adequate means of ensuring that the delivery processes deliver on the local content development objectives of the Federal government. The University of Salford sponsors this research project through the School of Science, Engineering, and Environment.

I am approaching your organization given your recent participation in the delivery of xxx infrastructure projects as a Regulator/Implementer/Client/Lead Contractor/Sub-Contractor. I require your assistance approaching any members of your organization and your supply chain who have taken part in the project planning, tender evaluation, bidding, and the actual construction phases of any of these infrastructure projects to participate in the scheduled interviews. Your expected participation would contribute immensely towards the prompt completion of my Ph.D. and provide your organization with new knowledge that will be beneficial to your future transactions.

The data collection method to be adopted would be semi-structured, which is expected to last for one hour. I shall also be requesting documents that relate to the entire execution of the project. I wish to assure you that any data obtained from your organization and within your supply chain shall remain confidential, as the identity of your organization and staff will remain anonymous.

This shall remain so both in the research report and any future publication. You are also within your rights to withdraw from the research process without any reason as this is a voluntary activity. If you have any questions, please do not hesitate to contact me or my supervisor via email at e.j.ogbugo@edu.salford.ac.uk and Professor Peter McDermott at p.mcdermott@salford.ac.uk

Yours Truly

Esozhim Joy Ogbugo

Appendix 9.5: List of Conference and Papers Presented

- ❖ Esozhim O.& McDermott P& Watts G.. Infrastructure Delivery System in Nigeria; An Approach to Unveil the Darkness In Its Bureaucracy Using Viable Infrastructure Delivery Model Presented At The Salford Post-Graduate Annual Research Conference Sparc (2021)
- ❖ Esozhim O.& McDermott P& Watts G.. Infrastructure Delivery System for Failed Affordable Housing in The South-South Region of Nigeria Presented at The Salford Post-Graduate Annual Research Conference Sparc (2023)
- ❖ Esozhim O.& McDermott P& Watts G. The Impact of Infrastructure Delivery Systems Model for Affordable Housing in Nigeria Construction Industry: A Case Study of South-South Region. Presented At The 30th Biennial Conference and General Meetings of The Nigerian Institute of Quantity Surveyors
- ❖ Factors Responsible for Cost-Overrun in Public Projects Construction in Abuja, Nigeria- Awaits Publications (2024)



Framework Validation

Dear Sir/Madam,

Introduction

Poor implementation of Affordable Housing policies, particularly in developing world, has been blamed for the slow pace of economic development and the living conditions in such countries. The failure of several Affordable housing-oriented policies to succour these countries' populace has been mainly attributed to poor implementation. One of the most prevalent reasons for poor implementation appears to be the presence of a disjuncture within the policy implementation cycle. Attempts by various scholars to identify the causes of such disjuncture appear to have been hindered by the absence of a proper platform for evaluating the implementation cycle itself instead of the outcomes, which has become the norm. Understanding the nature of inter-organisational relationships from a systemic perspective within the implementation cycle would enable investigators to appreciate the impact of such relationships on successful implementation and also encourage the identification of the cause of such disjuncture. Using the implementation of the Nigerian Oil and Gas Industry Content Development (NOGICD Act, 2010) during the procurement and delivery of oil and gas infrastructure projects in Nigeria as an exemplar, this study seeks to develop such a platform, the VIDM. The VIDM not only conceptualises the various organisations involved in delivering the infrastructure asset but also provides the basis for the subsequent evaluation of the inter-organisational relationships based on the principles of systems/organisational viability.

Framework Overview.

The VIDM is a model premised on the tenets inherent in its base model, the VSM and the theory of viable systems. Its intended usage lies within the realm of the evaluation of strategy or policy implementation through the conceptualisation of the interorganisational relationships which exist during the project delivery. Subsequently, this conceptualisation allows for an understanding of how the activities of these organisations within the implementation cycle impact upon the attainment of successful implementation, hence allowing for changes to be made when errors are identified during the implementation lifecycle and not at the end as has been the norm. The VIDM relies on the premise that the successful implementation of Affordable Housing policy initiatives during the procurement and subsequent delivery of an infrastructure asset depends on the delivery system's ability to attain and maintain organisational viability. Organisational viability has been described as a situation where various organisations involved in the delivery of a particular organisational task communicate, collaborate and exercise control over and between them achieving as it were, homeostasis or ultra-stability (the tendency towards a relatively stable equilibrium between interdependent elements), hence allowing such a system to regulate itself without interference from external forces, whilst maintaining the collaboration needed to deliver the purpose of the system. Certain criteria are imperative for the attainment of this state of viability within project delivery systems. These criteria consist of the following, namely: a) Presence of the five management functions within the organisation, usually described as Systems 1-5;

b) Presence of structural recursion

c) Identification of a common identity (The purpose of the system);

d) Effective communication between parties.

e) Cohesion (alignment of individual and collective interests)/Collaboration.

f) Adaptation and flexibility; and

g) Balanced contributions from component systems.

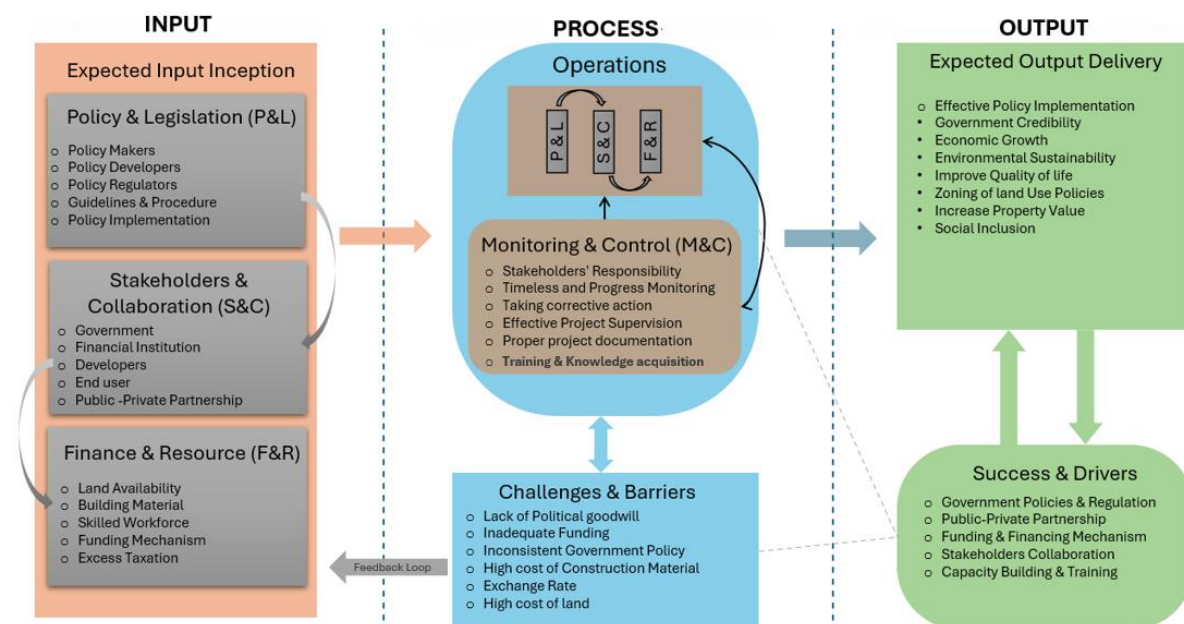
The presence of subsystems 1-5 in the VIDM connotes the presence of the organisations responsible for the

performance of the management functions required for the attainment of overall viability. Besides being present

within the delivery system, these organisations should be able to share a common organisational identity; the

purpose of the system.

Model Validation



Validation Questions

1) Does the FIDSAH depict a systematic view of the relationships between your organisations

and other organisations within project delivery systems?

2) Does the FIDSAH properly identify the various stakeholders to an infrastructure delivery activity?

3) As a stakeholder in infrastructure delivery, would you describe the FIDSAH as easy to

understand?

4) Would you describe the FIDSAH as easy for evaluating inter-organisational relationships within

delivery systems?

5) Can effective communication and collaboration between various stakeholders affect the attainment of project/policy implementation success

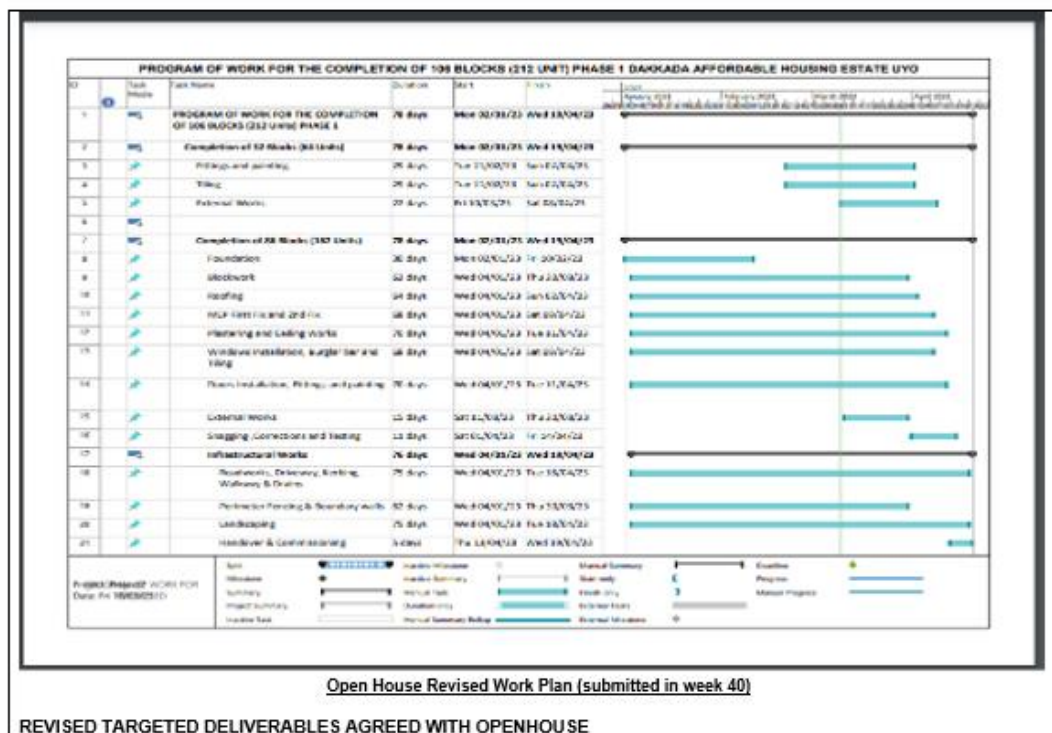
Appendix 9.7: Infrastructure Delivery Execution Approach

Research Questions	Secondary Source	Primary Source	Validation	Experience
How may existing policies and reforms be enhanced to meet Nigeria's affordable housing challenges?	X	X		
Who are the key stakeholders involved in the delivery of affordable housing schemes in Nigeria?	X	X		
How can existing drivers be harnessed and new drivers promoted to achieve better performance in the delivery system?	X	X		
Where there any gaps or weaknesses in the existing monitoring and control system?	X	X		
What are the key factors that contribute to the failure of some affordable housing schemes in Nigeria?	X	X		
How can the proposed Framework be developed and validated for successful infrastructure delivery of the affordable housing in the region.	X		X	X

Table 1.2 shows the complexity of the research issue determines how secondary and primary data sources interact, and the researcher's background influences the choice and analysis of each. While focused questions require specific primary data collecting, broad questions require context from a variety of secondary sources. The selection of sources, data gathering techniques, and critical analysis are influenced by the researcher's knowledge; thus, open reflection is necessary to minimise any potential biases. In the end, not only being aware of this complex interplay between the topic,

the data, and experience maximises research efforts and produces insightful findings for the area, but also creating the propositions for this research as highlighted in the next heading.






Appendix 9.8: Program of Works Documentation



Appendix 9.9: Project Summary Documentation

SUMMARY				Rate	%
SUB-STRUCTURE				1,321,179.32	13%
CONCRETE WORKS				578,934.17	6%
MASONRY				1,346,985.30	14%
CARPENTRY				551,839.21	6%
SHEET ROOF COVERING				742,919.33	8%
GENERAL JOINERY				97,777.76	1%
WINDOWS, SCREENS AND LIGHTS				411,840.00	4%
DOORS, SHUTTERS AND HATCHES				664,888.84	7%
METAL WORK				227,919.96	2%
FLOOR, WALL, CEILING AND ROOF FINISHINGS				1,885,399.80	19%
DECORATION				248,478.44	3%
SUSPENDED CEILINGS				461,512.16	5%
FURNITURE, FITTINGS AND EQUIPMENT				200,444.44	2%
DRAINAGE				547,946.46	6%
MECHANICAL SERVICES				164,912.75	2%
ELECTRICAL SERVICES				367,483.68	4%
MAIN BUILDING: CARRIED TO GENERAL SUMMARY				9,820,461.62	100%
ISSUES AND CONSTRAINTS					
<ol style="list-style-type: none"> 1. The developer is not working as expected to deliver within timelines of deliverables. 2. The Contract Bill of Quantities issued in 2019 is at variance with present realities. 3. Poor coordination within the contractor and the developer resulting to poor dissemination of information to the subcontractors. Mostly information and instructions are never written and all verbal which is not in tandem with best practices. 					

Appendix 9.10: Existing Models and Framework Evaluation

MODELS	EXISTING FRAMEWORK AND MODEL	DESCRIPTION	PROS	CONS	JUSTIFICATION	MODEL FOCUS	RELATIONSHIP TO MY WORK
	Systems approach Infrastructure Delivery (SAID)	The Systems Approach to Infrastructure Delivery (SAID) is a whole system framework for planning, designing, and delivering complex infrastructure initiatives more efficiently and effectively such as. Rather than isolating individual projects, it emphasizes adapting a holistic view of the entire infrastructure system, considering its components and their interrelationships. Also, SAID is a model for applying systems thinking to project delivery.	1. SAID is a model for applying systems thinking to project delivery that has been welcomed enthusiastically by Project 13's leaders. 2. Facilitates a whole complex system instead of a single.	Complex projects combine physical assets, technology, and digital information through a Building Information Model (BIM) or a "digital twin" to deliver new or improved infrastructure services like mobility and clean energy. 2. SAID places strong emphasis on cooperation across several parties. Especially when dealing with competing interests or a lack of trust amongst partners, this can be challenging to handle. 3. SAID is a systemic problem that needs long-term thinking and effort from everyone involved. This can be hard in.	1. Long-term commitment: the model suggests it could be hard in unstable political or economic situations, where short-term goals may come first and, therefore, can not be implemented for the purpose of this study. 2. Stakeholder engagement and coordination: The model emphasizes stakeholders' engagement and cooperation; otherwise, it becomes challenging to implement. 3. Usage: SAID has not been implemented in Nigeria as a developing country that has its peculiarity.	Planning, designing, and delivering 1. Think Outcome-User expectation 2. Gap clearing between infrastructure and Sector 3. Design and Delivery Schedule 4. Future Proof Project 5. Think have worthy, not have ready 6. Make in system thinking 7. Agile Leadership 8. Data oil Projects	In view of the systems approach to infrastructure Delivery, it can be said. The Theory System thinking was identified by SAID implemented a whole systems in order to make better decisions and enhance the outcome. Stakeholders and Management engagement under Said also identified this shovel work
	Interdependency Planning and Management Framework (IP&MF)	The framework for Interdependency Planning and Management (IP&MF) facilitates the delivery of infrastructure methodically. By mapping dependencies across systems and elements, both current and potential, it creates a chance to maximize value for money, efficiency, effectiveness, sustainability, and resilience.	Investigation into the Development of a Framework for the Identification and Appraisal of Infrastructure Interdependencies with Application to Critical UK Infrastructure: Technical Report for Infrastructure UK.	1. Specifically developed for the United Kingdom Infrastructure 2. Other tasks could not be used to implement the framework. 3. Not all elements have been tested in all cases study.	1. Long-term commitment: 2. Stakeholder engagement and coordination: 3. Usage:	1) Interdependency planning, and management practices 2) Stakeholders understanding by emphasizing on interdependency planning, governance, and valuation practices 3) measurement and appraisal activity involve establishing criteria, gathering evidence, and reviewing business case	The research finds framework for Interdependency Planning and Management relevant and related through Stakeholders collaboration and governance
	Infrastructure Project Lifecycle (IPL)	The IPL Framework encompasses several phases to provide sustainable, functional, and economical infrastructure that meets societal needs, from careful planning and efficient building to responsible operation and social upliftment. Therefore, which covers everything from building roads and bridges to fostering economic expansion and equitable development, guarantee that infrastructure not only meets its immediate need but also establishes the groundwork.	the process that provides the ability to identify and evaluate the environmental and social consequences thoroughly of infrastructure projects across their lifetime. 2. Aspires to build infrastructure that not only fulfills its immediate function but also helps to ensure a sustainable, prosperous, and equitable future for all.	1. materials extraction and end of life of the project are omitted and therefore not considered. 2.	1. Long-term commitment: 2. Stakeholder engagement and coordination: To ensure project acceptance and resolve issues, involve all stakeholders in planning and decision-making, including business, communities, and governmental organizations. 3. Usage: aspire to build infrastructure that not only fulfills its immediate function but also helps to ensure a sustainable, prosperous, and equitable future for all.	1) Informal institutions: customs, traditions, norms and religion; 2) Formal institutions: rights, policies, judiciary and bureaucratic processes; governance. 3) Institutional environment: (1&2) 4) Contractual Rules	The research findings enhance the existing knowledge on evaluating management performance and implementing a comprehensive sustainability-focused approach to managing Public-Private Partnerships (PPP) over their entire lifetime. Hence the need to adopt PPP from the framework. In addition, rights on policies, regulations and
	Viable Infrastructure Delivery Model (VIDM)	A Viable Infrastructure Delivery Model that is used for the implementation of organizational structure for effective project policy delivery using systems thinking and theory for the actualization of successful organizational policy implementation in infrastructure development.	1. This study highlights essential success elements for designing successful sustainable governance structures of a typical infrastructure delivery (ID) system using a cybernetic system framework. 2. the viable infrastructure delivery systems model (VIDM) also provides success elements for ID system environmental regulation. 3. would avail policy analysis in emerging economies with a tool for carrying out proper implementation analysis during policy implementation cycle. 4. It has been tested in the	1. The study focuses on developing countries' oil and gas sectors. 2. Research is generic to infrastructure delivery. 3.	1. Long-term commitment: VIDM was created during twenty-one months, from August 2012 to April 2014; as such, its goal is short-term. 2. Stakeholder engagement and coordination: VIDM's success is mainly dependent on its adaptability to specific circumstances. This can be difficult owing to differences in political views, government arrangements, and socio-economic realities across projects. Implementing it in situations with weak institutions or ineffective policies might be especially difficult. Despite its usability in the Nigerian oil and gas industry, the model has not been implemented in the Nigerian affordable housing policy therefore later.	Policy Level, Policy Development Implementation Agents, Policy Delivery Agents, (P&R) Project Team Supply chain, Critical Success Factors, Policy output	The VIDM identifies the stakeholders Collaboration such as clients, contractors, labour unions, non-governmental organizations, end users, controlling organisations, public authorities, financial institutions, media, and third parties, among others also identifies policy implementation. The VIDM identifies three cases and interrelationship between policy & Regulatory makers, Also the Critical success Factors that could be related to
	National Infrastructure System Model (NISMOD)	NISMOD is the world's first national-scale system-of-systems infrastructure modelling platform. It's essentially a set of tools and a database that helps researchers and policymakers understand how different parts of the UK's infrastructure network (like transportation, energy, and water) are interconnected and how they affect each other.	1. Comprehensive Database 2. Make evidence-based decision 3. A framework for developing sustainable solutions 4. NISMOD can be used to identify and evaluate the risks that various infrastructure systems face, including natural catastrophes, cyberattacks, and climate change. This can assist policymakers in establishing measures to strengthen the UK's infrastructure.	NISMOD is developed cities such as the UK, Ireland, countries, and regions. Evidence-based planning supports government and decision-makers in achieving national development plans with better knowledge of demographic, economic, and climate change risks.	1. Long-term commitment: the model suggests a long-term commitment to assisting the UK in assessing its infrastructure needs and plans to meet vital sustainability and emission targets; hence, there have not been implemented in Nigeria. 2. Stakeholder engagement and coordination: the stakeholders engaged for the model are engineering and might not be applied in the affordable housing context. 3. Usage: The NISMOD system includes databases and databases for managing data sets, model configuration, inputs and outputs, as well as integration tools and libraries for analysis.	Services-Population, Economy, Technology and Climate. 2 Independent Infrastructure System models-Energy, Transport, Digital Communication, food protection, water supply and waste water. 3. Metrics of Future Infrastructure Performers- Service Delivery, capacity Margin, Cost, carbon Emission	Despite the application of NISMOD on infrastructure modelling Platform it is identified that it does not have any relationship with housing key words as it focus is on Energy

Appendix 9.11: Project Documentation Scope

Description	IDS1-Project A	IDS2-Project B	IDS3-Project C
A) PROJECT TYPE	Mixed Used	Residential	Residential
B) LOCATION	Port Harcourt, Rivers State	Bayelsa State	Dakkada, Ikwa-Ibom
C) PROJECT VALUE	N82 Billion Naira	N15 billion Naira	N4.8 billion Naira.
D) PROJECT START DATE	01 April 2015	01 January 2012	01 June 2022
E) EXPECTED FINISH DATE	01 December 2020	20 December 2016	01 December 2022
F) PROCUREMENT METHOD	Construction Manangement was implement whereby they negotiate cost of each element through tender submission	Design and Build method were implemented with a major contractor as fix price to Design, Construt and handover to Client for allocation	Design and Build method were implemented with a major Developer. At fix price to Design, Construct and Sell

G) CLIENT STAFF LOCATION INCLUDES:	During the project execution there was client representative always on site	client representative always on site	Staff at the head office (Lagos)
H) PARTICIPATING PARTIES	Clients, Client Supervision Consultants, Main Contractors, Design Teams (Client and Consultant) Sub-Contractors.	Client, Developer, Main contractors, Sub-Contractors	Client, Main contractors, Sub-Contractors
J) CLIENT STAFF ASSIGNMENT IN THE PROJECT : Planning Appraisal, Design, Construction	Project Design Supervisor, Project Design Supervisor, Monitoring and Control Team	Public and Private Investment Representative, Public and Private Investment Representative, Monitoring and Control Team	Public and Private Investment Representative, Public and Private Investment Representative, Monitoring and Control Team
K) CONTRACT DOCUMENTS: Design Contract Document Consist of	Instruction to bidders-General Conditions -Form of Agreement	General Conditions-Special Condition-Scope of works - Forms of Agreement	General Conditions-Special Condition-Scope of works -Forms of Agreement
SUPERVISION: Supervision of the Construction works Document	Instruction to bidders-General Conditions -Form of Agreement	General Conditions-Special Condition-Scope of works - Forms of Agreement	General Conditions-Special Condition-Scope of works -Forms of Agreement
WORK EXECUTION: Execution Contract Documents Includes	Instruction to bidders-General Conditions -Form of Agreement-BOQ-Drawing Specifications	General Conditions-Special Condition-Scope of works -	General Conditions-Special Condition-Scope of works -Forms

		Forms of Agreement-BOQ-Drawing Specifications	of Agreement-BOQ-Drawing Specifications
CONTRACT PREPARATION			
Disgn	The Client Constultants	The Client Constultants	Developers(OpenHouse Nigeria Property
Supervision	Client and Financier	Client and Financier	Goverement And Financiers
Execution	Public and Private Partners	Public and Private Partners	Developers, (OHNP) Conractors ,Sub-contractors
TENDER PROCEDURE		
Design		Direct Appointment	Selected Tender
Supervision	Direct Appointment	Direct Appointment	Selected Tender
Execution	Selected Tender	No Tender (Direct Appointment)	Selected Tender
TENDER TYPE			
Design	Selected Tender	No Tender (Direct Appointment)	Selected Tender
Supervision	Selected Tender	No Tender (Direct Appointment)	Selected Tender
Execution	Selected Tender	No Tender (Direct Appointment)	Selected Tender
CONTRACT TYPE			
Design			
Supervision	Included on the construction Mangement Contract on milestone basis Professional Fee Percentage basis Reinbursable with an addictional fee	The Contract was base on Public and Prive owiership where the govement and First bank PLC are in partnership	The Contract was base on Public and Prive owiership where the govement, motgage bank and developers are in partnership
Execution			

RELATIONS			
PROJECT COST	if Project is revisted it will be on a higher Cost than initial Budget	if Project is revisted it will be on a higher Cost than initial Budget	if Project is revisted it will be on a higher Cost than initial Budget
PROJECT STAGE	Project is onhold, no workers on site Appears Abundoned	Project is onhold, no workers on site Appears Abundoned	Project is onhold, no workers on site Appears Abundoned
PROJECT TERM			
Causes of Delays	<p>The Project was not completed as Stated till date</p> <p>Lack of Good will Inadequate Funding high Cost of Construction Materials Inconsistence Govement Policy Infrastrcture Challenges</p> <p>Community Emgamentt Contractor Poor manageement Unhormonised policies and regulation Political Interference Delay in payments</p>	<p>The Project was not completed as Stated till date</p> <p>Weather Condition Delay in payment Political Interferenc lack of Professional Good will Unhormonised policies and regulation</p>	<p>The Project was not completed as Stated till date</p> <p>High cost of Constrction Material Delay in payment changes and modification</p>

