# FACTORS CONTRIBUTING TO THE SUCCESS OF PUBLIC-PRIVATE PARTNERSHIP FOR HOUSING DELIVERY IN NIGERIA

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In the name of Allah, the most *beneficent*, the *merciful*.

This thesis is dedicated to my mother, Hajiya Balkisu Muhammad Danillela who passed away during this Ph. D program. I pray that Allah grant her eternal peace and blessing

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#### ABSTRACT

Due to the observed mixed results in the application of public-private partnership (PPP) model, a variety of research have focused on identifying and establishing the relative importance of critical success factors (CSFs) of PPP projects. However, while the findings of those studies remain valuable, there seems to be no comprehensive measure of the contribution of the CSFs to the success of PPP projects particularly in the context of developing countries like Nigeria. Many assessment studies reported that the PPP housing scheme in the Federal Capital Territory (FCT) Abuja and other PPP projects in Nigeria had recorded little success. With the acclaimed failure stories of the PPP projects in Nigeria, this empirical study, using a sequential mixed method research, investigated the underlying predictors and the extent of their contribution to the success of the PPP for housing delivery in Nigeria. A focus group interview was conducted to verify the appropriateness of the list of CSFs gleaned from the literature for PPP housing delivery in Nigeria. Subsequently, a survey was undertaken to elicit the opinion of both the public and private sector participants with regards to the extent of the contribution of the verified CSFs to the success of the PPP housing project in Abuja, Nigeria. The data was analyzed using Structural Equation Modeling. The findings of the study revealed that 'effective procurement process' has the highest contribution indicating a standard deviation of 96% while 'favourable investment environment' (FIE) has the lowest impact with a contribution of 40%. Based on the predictors of the CSFs, the study proposed a model for evaluating the success of PPP housing projects in Nigeria. The study concludes that lack of transparency in the procurement system, poor economic condition, poor governance, corruption, weak institutions, and incompetent private sector are the contextual peculiarities in Nigeria that influence the extent of contribution of the success factors.

### ABSTRAK

Pemerhatian terhadap hasil pemakaian konsep perkongsian awam-swasta (PPP) yang pelbagai menyebabkan banyak kajian tertumpu kepada mengenalpasti dan menentukan kepentingan relatif faktor kritikal kejayaan (CSFs) projek-projek PPP. Walaupun penemuan kajian-kajian tersebut bernilai, namun, tidak ditemui ukuran yang komprehensif terhadap sumbangan CSFs dalam menjayakan projekprojek PPP khususnya dalam konteks negara-negara membangun seperti Nigeria. Kebanyakan kajian penilaian melaporkan bahawa skim perumahan PPP di Wilayah Pentadbiran Ibukota Persekutuan (FCTA) Abuja dan projek PPP lain di Nigeria tidak menunjukkan kejayaan. Berdasarkan kegagalan projek-projek PPP di Nigeria, kajian empirikal ini menggunakan kaedah bercampur berturutan bagi mengkaji peramal dan sumbangan CSFs terhadap kejayaan melaksanakan projek perumahan PPP di Abuja, Nigeria. Temubual kumpulan fokus dijalankan bagi mengesahkan kesesuaian senarai CSFs yang dikenalpasti melalui kajian literatur bagi pelaksanaan perumahan PPP di Nigeria. Seterusnya survei dilakukan untuk mendapatkan pandangan peserta sektor awam dan swasta di Abuja berkaitan sumbangan CSFs yang telah disahkan terhadap kejayaan projek perumahan PPP. Data telah dianalisis menggunakan Permodelan Persamaan Berstruktur. Penemuan kajian menunjukkan bahawa "proses perolehan yang berkesan" mempunyai sumbangan tertinggi dengan sisihan piawai 96%, manakala "iklim pelaburan yang menggalakkan" (FIE) mempunyai impak paling rendah dengan sumbangan hanya 40%. Berdasarkan peramal CSFs, kajian ini mencadangkan model bagi menilai kejayaan projek perumahan PPP di Nigeria. Kajian ini menyimpulkan bahawa kurangnya ketelusan dalam sistem perolehan, keadaan ekonomi yang tidak kukuh, urus tadbir yang lemah, rasuah, institusi yang lemah dan sektor swasta yang tidak cekap merupakan konteks tempatan di Nigeria yang mempengaruhi sumbangan faktor-faktor kejayaan.

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# LIST OF ABBREVIATIONS

AGFI	-	Adjusted goodness-of-fit Statistics
AHP	-	Analytic Hierarchy Process
ARA	-	Appropriate Risk Allocation
AVE	-	Average variance extracted
CFA	-	Confirmatory factor analysis
CFI	-	Comparative fit indices
CR	-	Construct reliability
CSFs	-	Critical Success Factors
EFA	-	Exploratory factor analysis
EPP	-	Efficient Procurement Process
EQS	-	Equations
FA	-	Factor analysis
FCT	-	Federal Capital Territory
FCTA	-	Federal Capital Territory Administration
FIE	-	Favourable Investment Environment
GFI	-	Goodness-of-fit Statistics
IBS		Industrialized Building Systems
JGC	-	Judicious Government Control
NFI	-	Normed-fit index
NNFI	-	Non-normed fit index

- OECD Organisation for Economic Co-operation and Development
- PGFI Parsimony goodness-of-fit index
- PPP Public-Private Partnership
- RFP Request for participation
- RFQ Request for qualifications
- RMR Root mean square residual
- RMSEA Root mean square error of approximation
- SEM Structural Equation Modelling
- SMC Squared multiple correlation
- SPS Strong Private Sector
- TLI Tucker-Lewis index
- UNESCAP United nation economic and social commission for Asia and Pacific
  - X<sup>2</sup> Model Chi-square

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### **CHAPTER 1**

#### **INTRODUCTION**

### **1.1 Background of the study**

Having recognized the vital role that housing and associated infrastructure play in the socio-economic development of societies, most governments traditionally entrust their delivery to state-owned monopolies (Njoh, 2006). However, rapid population and poor finances throughout the world is seriously outstripping the capacity of most governments to provide housing efficiently. The growth of cities, particularly in the developing countries is increasing at an alarming rate. In the past decades, the percentage of people living in the cities of the developing world has tripled (Bennett *et al.*, 1999). This unprecedented urban growth has created an enormous challenge to the provision of housing and associated infrastructure. While the population and urban growth keep increasing, public sectors are characterized by inefficiency (Harris, 2003; Nsasira *et al.*, 2013) and limited resources (Jin, 2010).

There is also a consensus among experts and policymakers that the public sector cannot efficiently provide housing and urban infrastructure alone because it often lacks the technology, skills, and expertise (Zhang & Chen, 2013). Both developed and developing countries of the world are witnessing a high demand for housing and urban development projects beyond the capacity of the public sector (UN-HABITAT, 2011). Novel strategies that involve collaboration with the private sector

are, therefore, needed to help governments cope with the growing demand (Alhomadi, 2012). Consequently, many states adopt Public-Private Partnership (PPP) as an alternative strategy for the provision of housing and infrastructure (Agrawal, 2010; Roumboutsos & Macário, 2013).

Public-private partnership involves long-term collaboration between public and private sectors in which the collaborating actors mutually agree to share risks, costs and benefits in the development of products or services (Hammami et al. 2006). The rationale for establishing a partnership is that both the private and the public sector have distinct advantages for delivering specific aspects of a public asset. The principal arguments for public-private partnership are two. One, it allows for the utilization of private sector resources, expertise, and skills to achieve 'value for money' in service provision (Armitage & Susilawati, 2004). Secondly, a partnership is a form of cutting cost strategy that allows the government to reduce the overall cost of social transfers.

Over the last three and a half decade, the public-private partnership strategy has gained popularity with governments for remedying the observed inefficiency in traditional service delivery approach (Bosso, 2008a; Siemiatycki, 2012). Despite some academic criticism, the public-private partnership continues to grow as one of the most viable strategies for the provision of public works and services (Hodge & Greve, 2011). The PPP model has become an increasingly important procurement option in both developed and developing countries for delivering public projects such as transport, housing, education, health, water, prisons, and defence.

In worldwide practices, however, there are mixed results and the experience with PPP has not always been positive. Research findings indicate both successes and failures in the application of PPP (Hodge, 2004; Duffield, 2004). In some instances, the partnership has been used to deliver a significant number of development projects. For instance, with the adoption of PPP, the United State have experienced 10 - 40% improvement in service quality and cost savings in asset management (Hodge & Greve, 2007). On the other hand, many partnership projects suffered disastrous outcomes and were either renegotiated (Bosso, 2008) or bailed out by the host

government (Zhang & Chen, 2013). For instance, about 40% of PPP infrastructure projects executed in the 1990's were reworked (Orr, 2006).

The success and failure stories are attributed to the intricate nature of PPP (OECD 2010) and the lack of PPP experience in many countries (Zhang 2005). PPPs are quite distinct from traditional delivery strategies due to the complexity of contractual relationships, multiple participants, long concession period, and broad range of risks and uncertainties. The concessionaire assumes more responsibilities and deeper risks; and the allocation of risks among participants is more difficult in a PPP project than in a traditional contracting out (Zhang 2004).

The observed mixed results and the problems encountered in the application of PPP had generated substantial criticism and doubt regarding the effectiveness of PPP (Batley, 1996; Hodge & Greve, 2007). For these reasons, many studies have focused on investigating public-private partnership projects mainly to establish the explanatory factors for failure and success towards making recommendations for improving PPP application. The understanding of the explanatory factors is essential for the establishment of PPP guidelines and the development of an effective PPP framework (Zhang 2005b; Kwak et al. 2009).

However, despite the growing appeal of PPP, the success and failure factors of its application in housing delivery have not been systematically examined (Alinaitwe & Ayesiga, 2013). The adoption of PPP in housing delivery is less compared to infrastructure provision (Ong, 2003; Trivedi & Ajit, 2014). Most PPP programs, since the early 1990s, have been in the infrastructure sectors of education, health, and transportation.

For these reason, less attention has been focused on PPP in housing delivery worldwide. As submitted by Sengupta (2005), PPP in housing delivery is yet to have a distinct enclave in both theory and application. PPP application is at infancy in most developing countries of the world and its knowledge base remains unexplored (Awodele et al. 2008). As supported by UN-HABITAT (2011), PPP housing programs

in the developing world are relatively sparse, with little empirical data to show a trend of success. Hence, the explanatory factors for the success of PPP housing delivery remained poorly understood particularly within the context of developing countries like Nigeria.

Nigeria is the first largest economy in the African continent with a GDP of \$594.275 billion (Africa Ranker, 2016). The World Bank (2010) classified Nigeria as a low-middle income country with a GDP growth rate of 3.0% and a gross national income (GNI) of US \$175.6 billion. Nigeria is the 7th richest oil producing country of the world and accounts for 25% of crude oil production in Africa (Ogwumike & Ogunleye, 2008; OPEC, 2009). Oil, which accounts for 80% of the federal government revenues and 95% of foreign exchange earnings is the primary source of income (Okezie & Amir, 2011).

Nigeria is well-endowed to be the strongest economy in Africa, and one of the leading economies in the world (Fayomi, 2013). However, despite its potentials, the country is experiencing declining economic growth. For instance, the country's per capita gross national product which was as high as \$1,218.4 in 1980, dropped to its lowest level of USD240.0 in 1992, USD250 in 1995 and USD270 in 1997. Similarly, the country's GDP shrank by 2.06 percent in 2016 which is more than the market speculation of 1.5 percent decline due to decline in oil prices (Trading Economics, 2016b).

The primary constraint to Nigeria's development is the unwillingness of its leaders to govern well rather than lack of resources. For instance, Nigeria's poor economic performance was attributed to widespread corruption and public bureaucracy. The country experienced a high level of negligence of its resources and abuse of public procurement system since independence in 1960. Violation of rules of procedure in the award and implementation of public contracts is evident in over-invoicing, inflation of contract sum, and diversion of public funds through the public contract system (Fayomi, 2013).

Furthermore, although the country got independence as far back as 1960, the struggle to guarantee political stability and national development was difficult. The source of political instability in the country is the inability of the nation to produce a national identity that transcends beyond ethnic, political, and economic interests. This failure has resulted in scores of military coups and counter-coups. For instance, the country has been governed by the army for 29 out of its 67 years of independence.

The years of vicious and corrupt military regimes created a legacy of political corruption and executive supremacy (Mundt & Aborisade, 2004). The political supremacy created a situation where few political elites are wealthy, while 70% of the populace remains poor (Sklar *et al.*, 2006). The political leaders usually lack accountability, transparency and have a blatant disregard for the rule of law. This bad leadership has resulted in mismanagement of the country's resources, thereby making the government unable to provide adequate housing, infrastructure and services.

Numerous research studies (UN-HABITAT, 2006a; Akinmoladun & Oluwoye, 2007; Ademiluyi & Raji, 2008; Mohit *et al.*, 2010; Hassan, 2011) indicated that various governments do make concerted efforts towards housing development through the public sector 'provider' approach. For instance, Hassan (2011) observed that from the mid-1970s, the Egyptian government encouraged self-help ownership by providing serviced plots and cheap materials to the middle-income groups in the country. Similarly, the colonial administration in Nigeria (1928-1960) directly constructed houses for the expatriates and some selected indigenous staff such as the Railways, and the Armed Forces (Aribigbola, 2008).

However, the period 1980-1990 witnessed an unprecedented acceleration of urbanization processes worldwide. This rapid urban growth has placed an extraordinary strain on many states from meeting the fundamental needs of their citizens. Consequently, the public sectors particularly in many developing countries of the world were unable to of match housing demand with adequate provision using the provider approach (Adeogun & Taiwo, 2011).

To ease housing problems, many governments introduced the 'enabler' approach, which shifts the responsibility for housing development to the free-market thereby allowing governments to focus on regulatory control (UNCHS, 1992). The main argument for the enabling approach is that rather than for central institutions to provide housing, government should provide an environment that enable the housing market to work efficiently (World Bank, 1993).

Similar to other countries of the world, Nigeria, the most populous country in West Africa is experiencing rapid urbanization with the majority of its population clustered in urban areas. With a growth rate of 3.8 percent per annum for the urban population, it is estimated that more than 60 percent of Nigerians will live in urban centers in 2015 (United Nations 2013). With this rapid urban growth, an adequate supply of housing and infrastructure has remained a problem for most governments in Nigeria.

This rapid urban growth has created a wide gap between the production of housing and its demand in Nigeria (Alao 2009; Umoh 2012). In fact, a gross housing deficit of 17 million is estimated for the country (Federal Government of Nigeria 2012). Abuja, the Federal Capital Territory of Nigeria accounts for 10% of the 17million housing deficit in the country (Mohammed, 2016). This implies that Abuja needs 1.7million houses to adequately accommodate its residents (Uwadima, 2016).

In 1991, the Nigerian government adopted a market-oriented policy to close the gap between the demand and supply of housing in the country. The policy limits the role of the government to that of an enabler and a regulator rather than a provider. The limitation of the role of the public sector is to allow for more active private sector participation in direct housing provision (Ibrahim & Kwankur 2012).

#### **1.2 Problem Statement**

In line with the private sector-driven housing policy in Nigeria, the Federal Capital Territory Administration (FCTA) initiated a PPP housing scheme under its public-private partnership program in the year 2000. The scheme, which aims to overcome the 1.7 million housing deficit, put emphasis on creating an enabling environment for private sector involvement (Ibrahim & Kwankur, 2012). Under the program, the FCTA is to provide primary infrastructure and allocate land to private developers. On the other hand, the private developers are to provide ancillary infrastructure and develop houses for sale to Nigerian citizens.

However, the scheme recorded little success (FCT Committee on Mass Housing, 2007) due to lack of adequate planning and implementation (Ukoje & Kanu, 2014). With a success rate of 32.25 % (Kanu, 2013), the scheme could not deliver the much-desired housing units to the residents of the Federal Capital Territory (FCT), Abuja. Many assessment studies (Aribigbola, 2008; Ndubueze, 2009; Ibem & Aduwo, 2012) of public-private partnership for housing scheme in the FCT and other public-private partnership programs in Nigeria have submitted that the programs failed to achieve the desired objectives. For instance, the Malaysian Garden housing estate is one of the partnership signed between Nigeria and Malaysian government in 2004 to provide 10,000 housing units in the Federal Capital Territory, Abuja. The project, with a target completion period of ten (10) years has achieved less than 2% progress after eight years (Mohammed, 2012).

Since the inception of the PPP housing project in 2000, only 113 (32%) out of the 356 developers under the scheme mobilized to sites and less than 2% of the developers completed their projects within the stipulated time frame (Ukoje & Kanu, 2014). These developers delivered 4,158 units, which represent only 12% of the proposed housing units. Similarly, while the FCTA could not meet up with its obligation of providing the primary infrastructure (FCT Committee on Mass Housing, 2007), the private developers were only interested in selling land without building houses and the necessary infrastructure as provided for in the partnership arrangement. Such violations of the terms of the partnership compelled the Development Control Department of the FCTA to take punitive measures involving removal of some of the houses that were built under the scheme (Ibrahim & Kwankur, 2012). This action is considered as an irony for the FCTA to remove the same housing units that it painstakingly set out to provide. The poor performance of the PPP housing scheme has led to the suspension and revocation of some allocations under the scheme in 2008 (Ibrahim & Kwankur, 2012).

With the acclaimed failure of the mass housing program, the FCTA introduced the land swap model (another form of PPP) in 2012. Under the model, the FCT administration is to grant land in a Greenfield districts to a developer for real property development. In return, the developer is to provide infrastructure including roads, drainages, water, electricity, facilities, sewers, and telecommunication ducts without any financial, technical or demand risk on the part of the FCTA. The land swap program focuses more on land and infrastructure development rather than for housing provision.

However, there are growing concerns regarding the extent to which the land swap model will adequately address the growing housing needs in the FCT (Ibezim-Ohaeri, 2013). As observed by Abubakar (2014), the model is likely to fail just like similar attempts in the past such as the PPP housing initiative. These concerns and criticism have, therefore, called for investigating the PPP initiatives in the country to understand their success and failure. Finding answers to how and why the efforts had failed would serve as valuable lessons towards improving housing delivery through PPP in the FCT in particular and in Nigeria, in general.

Due to the worldwide interest and the problems encountered in the application of PPP, numerous researchers (Akintoye *et al.*, 2003; Qiao *et al.*, 2001; Jamali, 2004; Hardcastle *et al.*, 2005; Zhang, 2005a) have investigated the critical success factors (CSFs) of different PPP projects. However, while there are similarities, those studies developed a different list of critical success factors of PPP projects in various administrative settings.

To enhance the understanding of critical success factors of PPP, other studies (Jefferies *et al.*, 2002; Li *et al.*, 2005; Chan *et al.*, 2010; Abdul Aziz, 2010; Babatunde *et al.*, 2012; Ismail 2013; Alinaitwe & Ayesiga, 2013) focused on investigating the relative importance of CSFs of PPP projects. Those studies established that the economic, political and cultural peculiarities of a country highly influence the CSFs of PPP projects and their relative importance. Hence, there is no uniform list of CSFs for application in all places (Bambrick, 2011). Given the diverse nature of PPP, merely adopting CSFs of PPP projects in one sector or country may not provide an exclusive list of CSFs for other nations or areas. Accordingly, Cheung *et al.*, (2012) opined that it has become necessary, particularly in countries that are new at adopting PPP, to establish the CSFs that are unique to such countries to prioritize them towards improving PPP delivery.

To date, there has been a variety of research regarding the explanatory factors that account for the success of the public-private partnership. However, most studies have either focused on identifying or establishing the relative importance of the CSFs of PPP projects. While the findings of those studies remain valuable, there seems to be no comprehensive evaluation of the contribution of the underlying CSFs to the success of PPP projects particularly in the context of developing countries. This study, therefore, focuses on investigating the underlying factors that influence the success of PPP for housing delivery in a developing country, Nigeria.

#### **1.3** Research Aim and Objectives

This research aims to evaluate the factors that contribute to the success of public-private partnership housing delivery in the Federal Capital Territory Abuja, Nigeria.

The study adopts the following objectives to achieve its aim:

- 1. To review the concept and application of PPP with a view to developing a conceptual framework for the study;
- 2. To identify the critical success factors of public-private partnership housing delivery in the Federal Capital Territory, Abuja, Nigeria;
- 3. To determine the relative importance of the critical success factors of publicprivate partnership housing delivery in Abuja;
- 4. To establish the contribution of the CSFs to the success of PPP housing delivery in Abuja, Nigeria;
- 5. To propose a model for evaluating the success of PPP projects and to make policy recommendations for improving Public-Private Partnership housing delivery in Nigeria.

### 1.4 Research Questions

The study will attempt to answer the following questions questions:

- 1. What are the critical success factors of Public-Private Partnership projects in general
- 2. What are the critical success factors of PPP housing provision in Abuja, Nigeria?
- 3. What is the relative importance of the identified critical success factors?

- 4. To what extent did the underlying CSFs contribute to the success of the PPP housing project in the federal capital territory, Abuja?
- 5. How can the delivery of housing be improved through public-private partnership in Nigeria?

#### **1.5** Scope and Limitation

The study involves investigating the factors that contribute to the success of public-private partnership housing delivery in the Federal Capital Territory Abuja, Nigeria. Other housing delivery strategies such as traditional (direct government) and private-for-profit provision, not under the PPP arrangements, are outside the scope of this study.

The study shall first conceptualize the theory and application of PPP through an extensive review of the literature to identify the success factors in general. The study will identify the critical success factors and establish their relative importance to the success of the PPP housing delivery in the FCT. After establishing the relative importnace of the identified factors, the study will proceed to evaluate the extent of their contribution to the success of the PPP housing project in the FCT. The understanding of the influence of the CFSs will serve as a basis for drawing policy recommendations for improving PPP housing delivery in Nigeria.

However, the study shall be limited to the PPP housing scheme implemented in Phases 3 and phase 4 (North and South) of the FCT (Fig 1.1 and 1.2) which has been acclaimed as a failure. Whilst the FCTA earmarked the phases to be developed using PPP model, housing provision in other phases (1 and 2) of the city was through the direct government provider strategies. The limitation to PPP housing delivery implies that the findings of the study may not apply to housing delivery in general. However, the findings will have wider utility in the sphere of PPP housing delivery that has gained popularity all over the world in the last three and a half decades (United Nations Economic Commission for Europe, 2008).



Figure 1.1: Map of Nigeria showing Federal Capital Territory, Abuja

Source: (https://www.google.com)



Figure 1.2: Phases of development in the Federal Capital City

Source: (https://www.google.com)

### **1.6** Significance of the Study

The study provides an enhanced understanding of the contextual factors that are critical to the success of public-private partnership housing delivery in Nigeria. The study established the extent of the contribution of the various CSFs to the success of PPP housing project in FCT, Abuja. This understanding will assist in developing a comprehensive policy framework for promoting the success of the PPP housing projects in Nigeria. The outcome of the research will enrich the theory of CSFs of public-private partnership in general and will assist decision makers in the evaluation of the performance of PPP housing projects. It will also help policy-makers in formulating PPP policy as an alternative service delivery strategy in Nigeria and other developing countries with similar characteristics.

#### 1.7 Research methodology and framework

This study is motivated by the need to establish and explain the underlying factors that account for the success of PPP housing delivery in Nigeria. Given the objective of the research, the study adheres to post-positivist research philosophy. The study proceeded on the theory that 'outcomes' are determined by 'causes' to explore and evaluate the factors that influence the success of a PPP housing project in Nigeria.

The study, being within the sphere of positivist paradigm, mainly employed a quantitative approach with embedded qualitative method to undertake measurement using empirical research. The investigation is carried out using an initial focus group interview involving experts with relevant experience in PPP in Nigeria. In the second stage, a questionnaire survey was conducted with both public and private sector stakeholders that participated in the PPP housing project in Abuja. A structural equation modeling (SEM) approach was used to measure the influence of the CSFs on the success of PPP housing project in the Federal Capital Territory, Abuja, Nigeria.

The research framework is based on the five main steps of the research process identified by Creswell (2012) as follows:

- (i) Identification of the research problem and specifying the purpose of the research
- (ii) Review of literature to establish a theoretical and conceptual framework on the subject of inquiry

- (iii) Collection of relevant data
- (iv) Analysis and interpretation of the data
- (v) Reporting research

These steps guide the development of a research framework for the study. Following the aforementioned steps of research process, the study adopts a four stage research framework (Fig. 1.2) to achieve its objectives:



Figure 1.3: Research framework

(i) Conceptualization

This stage conceptualizes the research by identifying the research problem associated with poor performance of the PPP housing delivery in the Federal Capital Territory, Abuja, Nigeria. The research problem is determined through preliminary literature search and observation of PPP housing delivery in Nigeria. With the acclaimed failure of the PPP housing delivery in Abuja, the study seeks to investigate its success factors and evaluate their extent of contribution to the success of the project.
#### (ii) Literature review

Based on the objective of the research, the study undertook an extensive literature review to have a comprehensive understanding of the concept, benefits, types, critical success factors, and application of public-private partnership. From the review of the literature, the study adopted a framework of PPP project success and outlined the variables to be measured. The review of literature also enabled the study to develop a conceptual framework and the methodology for the study.

(iii) Data acquisition and analysis:

The third stage of the study focused on data collection and analysis through empirical investigation. The study proceeded to acquire data through focus group discussion with PPP experts and questionnaire survey of PPP project participants in the study area. In the questionnaire survey, convenient sampling technique was used to collect data from stakeholders (from public office and private sector companies) that participated in the PPP mass housing project.

Respondents were asked to rank the importance and assess the level of contribution of a list of CSFs in the success of PPP housing project using Likert-type scales. The data for the study was analyzed using Analytic Hierarchy Process (AHP) and Structural Equation Modeling (SEM).

## (iv) Reporting:

Reporting is the last stage in the process and involves presenting the findings of the study, as well as drawing a conclusion, making recommendations for improving public-private participation for housing delivery in Nigeria, and suggesting new frontiers for further studies.

### **1.8** Organization of the Thesis

Chapter 1, an introductory chapter, presents an overview of the research which highlights the research background, problem statement, aim and objectives of the research, the scope, and significance of the study. Chapter 2 and 3 focused on literature review and background of the study area. Chapter 2, the first part of the review, focused on examining the concept and application of PPP. The chapter examines the concept, theoretical underpinning, types, and benefits of PPP; and examined the application of PPP in the provision of public works and services. The review is to identify the factors that are critical to the success of PPP projects in general.

Chapter 3, the second part of literature review, dwelled on housing delivery and background of the study area. The first part of the chapter gives an account of the location and history, population, economic and political development, and also reviews housing provision in Nigeria with particular reference to the PPP housing program in the federal capital territory Abuja, Nigeria. In the second part, the chapter examined housing delivery and reviews housing policies and programs in the study area.

Chapter 4 presented the methodology employed in the study. The types of data required for the study, method and instrument of collecting the data, sampling procedure, as well as methods of data analysis are described in this chapter. Chapter 5 reports and discuss the findings of the study. The Chapter ranked the CSFs regarding their relative importance and evaluate their contribution on the success of the PPP housing project in Abuja, Nigeria.

Based on the findings of the study in chapter 5, Chapter 6 summarized the study, make recommendations, and draw a conclusion of the study. The chapter also offered suggestions for future studies.

# 1.9 Summary

This chapter conceptualized the research, highlights the research background and identified the direction of research within the subject of the study. A research niche was identified through a synthesis of the research background and the identified problem in the study area. The chapter outlined the objectives to achieving the aim of the study and briefly described the appropriate research methodology employed in the study. The chapter also highlights the significance, scope, limitation, and the organization of the thesis.

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