EVALUATION OF CRITICAL SUCCESS FACTORS FOR PUBLIC-PRIVATE PARTNERSHIP'S REMODELLED MARKET PROJECTS IN ABUJA, NIGERIA

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A THESIS SUBMITTED TO THE POSTGRADUATE SCHOOL, FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, NIGERIA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF TECHNOLOGY (M. TECH) IN QUANTITY SURVEYING

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ABSTRACT

This study evaluated the critical success factors in public-private partnership (PPP) on remodeled markets in Nigeria with a view to determine how to improve the usage of the PPP procurement method in markets remodeling. The study was a descriptive survey, using a semi-structured questionnaire in five sections namely: socio-demographics, rating of critical success factors in relation to markets remodeling, PPP Models relevant for markets remodeling, associated risks and risks allocation in relationship to markets remodeling. A total of 120 questionnaires were administered to the respondents. data obtained from respondents were analysed to arrive at the descriptive and inferential statistics. The critical success factors observed in this study were factors at the preliminary qualification evaluation phase, the tendering phase, the construction phase, operation phase and transfer phase. The analysis of variance of these factors to the level of usage of PPP model shows a significant impact of 89.5%. Design Build and Operate, Design Build Operate and Transfer, Operation and Maintenance, Build-Operate and Transfer, Design Build, Design Build Operate and Maintain are some of the PPP models used for markets remodeling. Price risks, completion delays, operating cost, expropriation, review of tariff and change in interest rates were reported with higher figures implying higher significance. In terms of risk associated with remodeling of markets using PPP arrangement by the actors. for public sector, 80% of respondents affirmed that project risk is highly related, regulatory risk 55% highly related, financial risk 79% moderately related, political risk 43% highly related, market risk 56% of respondents agree it's not related and development and planning risk 47% not related. But for private sector, respondents viewed market risk is 15% highly related, development planning risks with 84% moderately related, project risk with 26% not related, political risk with 77% moderately related, regulatory risk 84% moderately related and financial risks 64% highly related according to respondents. Overall, in this study, the results revealed risk factors and significant success factors on remodeling of markets in FCT Abuja, Nigeria.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the Study

Infrastructures are physical developments like roads, buildings, bridges, electricity grid, telephone grid, industries, medical facilities, educational facilities, sport facilities, markets and so on, are necessary for the community's smooth operation (Oyedele, 2019). Infrastructures are procured either with public fund or via public-private partnership (PPP). The synergy in public and private sectors coming together for improved infrastructural development in the States cannot be overemphasized. Oyedele (2012) described infrastructure as the facilities, goods, services, that enable an economy to operate. Physical infrastructure has long been recognized as a driver of economic development and growth. There is a significant need for a new infrastructure in both developed and developing economies because of wear and tear due to long usage or increase in population of users and/or obsolescence.

Over the last decade, the private sector's participation in the construction and funding of public infrastructure and services has increased dramatically in developing countries. (Li *et al.,* 2005). The usage of PPP procurement method aid public sector in the development of infrastructure while also allowing them to reduce their debt profiles (Sanni, 2016). Both developed and emerging economies have a substantial need for new infrastructure due to wear and tear from long-term use, population growth, and/or obsolescence (Oyedele, 2019). Oyedele (2019) pointed out that between 2014 and 2025, nearly $78 trillion will be spent on capital projects and infrastructure provision globally. PPP as a tool has been used in Nigeria for over a decade, and during that period only few infrastructural projects have been implemented, while others have failed.

Meanwhile, with the records of some success stories, in Nigeria, the governments (Federal and State) started to look at more subtle ways of using private sector capital in the delivery and operation of public infrastructure such as highways, railways, airports, market facilities, educational institutions, and other facilities. (Babatunde *et al*., 2012). Studies by Bwanali and Rwelamila (2016); Cohen and Grants (2018) indicate that public sector financial outlays are extremely large in every country around the world. Hence there is need for private finance to carry out project, which is the main objective and goal of PPP concept. The concept allows the involvement of private sector partners more than the traditional procurement systems mostly used by the public sector agencies for providing public infrastructures. PPPs have recently proven to be a more competitive procurement system for public agencies seeking productivity improvements and increased value for money in exchange for money spent (Adamu, 2016).

The implementation and application of the PPP definition and mechanism varies in both developed and developing countries. Despite the disparities, the public-private partnership procurement mechanism has drawn the attention of many countries and is gaining traction in the construction of public infrastructure facilities around the world. In Nigeria, for example, the PPP principle is regarded as a reform mechanism for addressing inefficiencies and lack of dynamism in the provision of essential infrastructure facilities in the country's economic growth (National Policy on PPP, 2008)

In identifying the critical success factors in public-private partnership on general infrastructure development in Nigeria, Babatunde *et al.* (2012) reported the following critical factors; availability of suitable financial market, thorough and realistic

assessment of the cost and benefits, competitive procurement process, government involvement by providing a guarantee, political support, stable macroeconomic condition, appropriate risk allocation and risk sharing, sound economic policy and favourable framework as critical success factors. The study also revealed that the most significant Critical Success factors for private investors are a well-organized and dedicated public agency, social support, project technological feasibility, and multi-benefits objectives.

In a recent finding by Sanni (2016), the seven critical factors were enumerated to determine project success are risk allocation and economic policy, delivering publicly needed service, projects feedback, leadership focus, short construction period, favourable socio-economic factors, and good governance and political support. However, it was concluded that if the government should concentrate on these key factors in the implementation process, more developmental projects could be delivered by PPP.

Also, in a study by Dahiru and Muhammad (2015), political stability, favourable legal framework, appropriate risk allocation and risk sharing, strong private consortium, good governance and protective policy against political risks, top the list of Critical Success Factors for realizing PPP projects in Nigeria. Other factors include genuine commitment of partnering parties, political support for long-term loans and government involvement in providing vital guarantees.

In order to bring about improved infrastructural development even for market facilities, Public-Private Partnership has become a very important tool. Public sectors around the world are working on innovative ways to fund projects, develop infrastructure, and provide services in an increasingly competitive global climate. PPPs are becoming more popular as a way to combine the strengths of both sectors. PPP provides much-needed

resources to finance public services and initiatives, freeing up public funds for key economic and social programs in addition to leveraging private enterprise efficiencies and developments. (Chan *et al*., 2008). PPP arose as a result of government capital constraints in supplying and providing required facilities, with the aims of improving productivity in the management and procurement of these requirements. Access to new sources of capital, rapid growth of infrastructure assets, risk sharing opportunities, maintenance or expansion of service levels, access to expertise in planning, management, and service delivery, and benefit from economic development opportunities are among the goals.

Public-Private Partnership (PPP) is still in rudimentary stage in Nigeria. It is a tool to deliver much needed infrastructure services (World Bank, 2019). According to World Bank (2018), 2017 was a stellar year for Public Participation in Infrastructure (PPI) investments in IDA countries. Private participation in infrastructure (PPI) investments' in IDA countries totaled US$7.9 billion across 35 projects in 17 countries in 2017, compared to US$2.9 billion in 2016 across 18 projects in 10 countries. Africa is expected to need $93 billion per year until 2020 to address its infrastructure deficit. (Bwanali & Rwelamila, 2016). Some African governments are increasingly turning to the private sector in the form of public-private partnerships (PPPs). PPP, as a creative financing model, offers African governments the chance to boost service delivery. In Nigeria, the contribution of private sector to public infrastructure assets finance is less than $100million in 2018 (Oyedele, 2019).

1.2 Statement of the Research Problem

It is unarguable that Nigeria has a significant infrastructure deficit, and that the infrastructure that is available is not being utilized to its full potential. According to

Oyedele (2012) most infrastructures in Nigeria is in a bad state, some of which needs repair, rehabilitation or redevelopment and the government is saddled with the responsibility to set up measures that will make the environment beneficial for living to everyone. The infrastructure report of Nigeria just like some third world country is nothing to write home about (Oyedele, 2019). Most infrastructures are now decayed and/or disservice and need repair, refurbishment, rehabilitation or replacement. The provision and development of infrastructure that will meets the demands of the people which is the obligation of the government has been a major challenge in Nigeria majorly due to budget constraint, the lack of capacity and technical know-how. Cohen and Grant (2018) opined that it is obvious that the government cannot perform her obligations without the support of the private sector or external investment.

Market as an infrastructure is not exempted from this ordeal. Across Nigeria, major commercial markets are in bad state and require rehabilitation or redevelopment. The impact of economic activities in markets on the GDP of Nigeria cannot be overemphasized. Adeogun and Taiwo (2011) stated that though the PPP arrangement is relatively new in Nigeria and some other developing nations, its adoption in various areas of the economy is becoming more popular. It has been used in the development of commercial markets such as Dutse Pe Market, Abuja handled by Property and Estate Limited, Kubwa Maitama Market handled by H & I Construction Nig Ltd; Garki Ultra-Modern Market by Urban Shelter Limited all in Federal Capital Terriotry, Abuja. It has been observed that despite the engagement of this procurement method (PPP) in developing these commercial markets time overrun and cost overrun are unavoidable during the construction period which disagree with Sanni (2016) conclusion on short construction period as a critical success factor of PPP. The magnitudes of maintenance being carried out during the concession period (i.e post construction period) of PPP

projects negate the essentiality of PPP. Often time some private investors shy away from bearing their risk allocation which affect the success of PPP projects (Dahiru & Muhammad, 2015; Fadeyi *et al*., 2018). It has been observed Markets remodeling via PPP often rely on off-takers resources to finance the projects. Thus in view of the above problems, this research is to evaluate the critical success factors of public private partnership on remodeling of markets in Nigeria.

1.3 Research Questions

The research seeks to provide answer to the following questions:

i. What are the critical success factors in PPP projects?

ii. Which model of PPP is mostly used for remodeling of markets in the study area?

iii. What are the suitable Critical Success Factors on markets remodeling in the study area?

iv. What are the risks associated with remodeling of markets in the study area?

v. What is the PPP structure for remodeling of markets in the study area?

1.4 Aim and Objectives of the Study

The aim of this research is to evaluate Critical Success Factors (CSF) in public-private partnership (PPP) on remodeled markets in Nigeria, with a view to improve the usage of the procurement method in markets remodeling. To achieve this aim, the following objectives have been set out.

i. To determine CSF in PPP projects

ii. To examine different Public-Private Partnership (PPP) models

iii. to examine the risks associated with markets remodeling through PPP in the study area

iv. to evaluate the suitable critical success factors on remodeled markets projects

v. Develop a PPP framework for remodeling of markets in the study area

1.5 Justification of the Study

In the last two decades, governments have increasingly used public-private partnerships as a tool to enhance service quality and complete major infrastructure projects. It has been proven that, government generally is a bad investor in efficient development and maintenance of infrastructure as compared to the private sector (Dahiru & Muhammad, 2015). The idea was, and still is, that by intensive cooperation between public and private actors, better and more innovative services and policy outputs can be realized at lower costs. Market as an infrastructure is being remodeled to an international standard with top notch facilities. More than four markets in the study area were remodeled while some are undergoing remodeling. The PPP arrangement for this remodeling births some eminent issues that need to be addressed. This study will address the eminent issues of public private partnership arrangement for the markets remodeling. Issues ranging from the pre-construction stages to the concession periods of managing the infrastructure by the private actor viz-a-viz the success factors of the arrangement will be evaluated. A detailed workable structure will be recommended for markets remodeling through PPP arrangement.

1.6 Scope of the Study

This research will limit its scope on infrastructure to market facilities. Federal Capital Territory, Abuja was chosen as the research area due to the high magnitude of markets

remodeling that are ongoing. Majorly, the remodeling works are being executed through PPP arrangement. Some of the ongoing and some of the completed remodeled markets are the target of this research in achieving the stated aim and objectives.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Conceptual Clarification of Public Private Partnership

Public-Private Partnership (PPP) has exploded in popularity around the world in recent years. Governments in both developed and emerging countries are largely relying on public-private partnerships to provide projects and services. (Ng *et al*., 2012). The term 'Public Private Partnership' PPP does not have any widely accepted definition rather various publications on the subject view it has a long-term collaborative arrangement between the public and private sector for providing public infrastructure and service delivery (Olugbenga & David, 2016). The term "public-private partnership" refers to a contract between public and private sector partners that include the private sector in the creation, funding, management, and/or operation of a public facility or service (Egbewole, 2011; Amr, 2008). It is also explained as a form of cooperation between public authorities and the private sector to finance, construct, renovate, manage, operate or maintain an infrastructure or service. This could be a healthcare facility, market, public infrastructure, stadium and so forth.

Public Private Partnership involves some form of risk sharing between the public and the private sector providing the infrastructure or service. The concept of PPP is not entirely new in infrastructure development. It has been used globally and can be traced to the UK government who engineered its use through Private Finance Initiative (PFI) (Awodele *et al*., 2010). PPP have grown in popularity in developed countries over the last two decades, owing to policymakers' need to access scarce public funds in the wake of the 2008 financial crisis.

PPPs are used by over 134 developing countries, accounting for around 15-20% of total infrastructure spending. PPP is a tool that governments routinely turn to in fulfilling

their obligations regarding public infrastructure and operation—a phenomenon that is increasingly taking hold in developing countries due to their perceived advantages in off-budget financing, expected productivity improvements, and enhanced service quality. Governments all over the world, especially in developed countries, face funding and expertise shortages when it comes to bridging infrastructure gaps (Dahiru & Muhammad, 2015). The World Bank has extended its assistance to developing countries in enhancing access to infrastructure and basic services through public-private partnerships (PPPs) in order to spur development and combat poverty (The World Bank, 2019).

Africa is expected to need $93 billion in year 2020 to address its infrastructure deficit. (Bwanali & Rwelamila, 2016). Some African governments are increasingly turning to the private sector in the form of public-private partnerships (PPPs). Public Private Partnership as a creative financing model which offers African governments the chance to boost service delivery.

The concept of public-private partnership in Nigeria is not new. In fact, it has been a means to address the infrastructural deficit that the nation is faced with (Oyewobi *et al*., 2012).

In Nigeria, Public-Private Partnership has been considered and favored as the way out for the country to meet her infrastructural deficit (The Nations Newspaper, 2013). The Nigeria PPP Review (2012) also confirms that Nigeria took a big step forward in gaining access to the benefits of PPP by enacting the Infrastructure Concession Regulatory Commission Act, which provides an enabling environment for private sector involvement in infrastructure growth PPPs are also seen as part of the solution of Nigeria's infrastructure deficit, according to the African Development Bank (2011), because of their ability to raise investment, share risks, mobilize technological and

managerial know-how, prevent the normal cost escalation associated with traditional construction contracts, and shift the project emphasis from short to long-term.

The following are the main characteristics of PPP as stated by Oyedele (2013);

i. Various interests of the parties concerned and the legal framework must be sound.

ii. Costing must be efficient and reliable. Many of the risks must be taken into account in costing.

iii. The source of funding must be reliable, available, and long-term.

iv. Both parties must have technical knowledge of the infrastructure being built, although at varying levels.

v. It must be based on the concept of value for money (vfm), and it must be cost-effective, reliable, and effective.

2.2 Models of PPP

Adamu (2016) affirmed that PPP models can be categorised based on the level and nature of risk that is assigned to the private sector. Adamu (2016) further stated that, the type of PPP to be used is mostly determined after proper evaluation and proper examination of any of the chosen objective concerning its significance, importance and specificity. Bamidele *et al*. (2015) also indicated that PPP arrangement differs from one another and the model of arrangement is based on the type, capacity and magnitude of the project or infrastructure to be delivered. Studies by (Kwak *et al*., (2009); FMW, (2013); and Adamu, (2016) argued that categorising PPP models is based on the extent of duties allocated to each parties in any partnership arrangement.

Egbewole (2011); Ikpefan (2013); Oyedele (2013) and Kwak *et al*. (2009) highlighted the model of PPP arrangements that can be used for any PPP projects. They include

Design, Build; Design Build and Maintain (DBM); Design-Build-Operate (DBO); Design, Build, Operate and Maintain (DBOM); Design, Build, Operate and Transfer (DBOT); Build, Own, Operate and Transfer (BOOT); Build-Own-Operate (BOO); Design-Build-Finance-Operate/Maintain (DBFO); Rehabilitate, Operate and Transfer (ROT); Joint Development Agreement (JDA) and Operation and Maintenance (OM). Some of the commonly used are show in Figure 2.1 below:

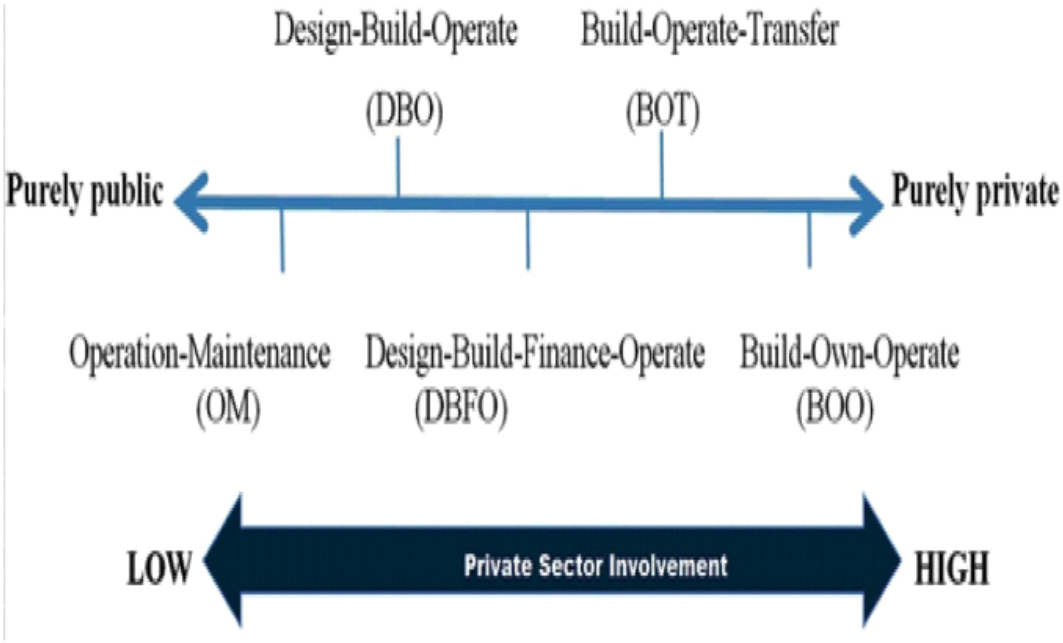

Figure 2.1: Models of public-private partnership (Adapted from Kwak et al., 2009)

i. Design-Build (DB): Under this arrangements, the public sector contracts with the private sector to design and build an infrastructure or facility in accordance with the public sector requirements and specification. After completion, the

public sector assumes responsibility for operating and maintaining the infrastructure or facility.

ii. Design-Build and Maintain (DBM): This arrangement is similar to the DB model; the only difference is that, here in DBM, the private sector also maintain the infrastructure. The public sector is still responsible for operating the facility.

iii. Design-Build-Finance-Operate (DBFO): This is the most common model of PPP. Under this model, a private sector designs, builds, finances an asset and operates it under a long-term term arrangement after which the facility reverts back to the public sector (UN-Habitat, 2011). In this type of arrangement, the private partner retains ownership during the contract period and recovers its invested funds through public subvention. The DBFO requires that, the private partner operates the facility for the contract period which makes it an important consideration in this form of procurement model. The features of the DBFOM are similar to those of DBFO contracts; the only difference being that, in the former, the private partner assumes the responsibility for managing the asset in addition to the design, construction, finance and operation.

iv. Design-Build-Operate (DBO): The private sector designs finance and constructs a new facility under a long term lease and operates the facility during the term of the lease. The private partner transfers the new facility to the public sector at the end of the lease term. This model is also referred to Build-Transfer-Operate.

v. Design-Build-Operate and Transfer (DBOT): In this model the Private sector is responsible for designing, building, operating a project within an agreed period of time and thereafter transfer the ownership and operations to the public partner (oluwasanmi & Ogidi, 2014)

vi. Build-Own-Operate and Transfer (BOOT): Under these arrangements, the private

sector finances, builds, owns and operates the facility for a given period of time, during which the private sector directs the affairs of the facility with interference from the government (Oluwasanmi & Ogidi, 2014). At the end of the contract the facility is handed back to the government. This model is often used in hospital and school projects.

vii. Build-Own-Operate (BOO): This is quite similar to BOOT model however the private sector builds, owns and operates the facility without transferring it to the public sector (Sanda *et al*., 2016). It is often used for Power plants or water treatment plant.

viii. Rehabilitate-Operate and Transfer (ROT): The ROT model is generally used to rehabilitate, operate an existing public infrastructure or facility for an agreed period of time and thereafter transferring to the public sector at the end of the contract (Oyigbo *et al.*, 2017).

ix. Joint-Development-Agreement (JDA): Under this model, the public and private sector is being encouraged to partner and sponsor the development of a project from scratch. Upon completion, both partners maintain the shares in the management and operation of the venture (Oyigbo *et al*., 2017).

x. Operation and Maintenance (OM): In this model, operation and maintenance function of the project, usually existing, is contracted to the party that has the experience, resources and technology to carry out the function ownership and management remains with the party that conceive the project (Oyedele, 2013).

Dominic *et al*. (2015) argue that there are four different types of PPP models which can also be referred to as PPP contract type which includes; Service Contract, Management Contract, Lease Contract and Concession as explained below:

Service Contract: Under a service contract the public sector contract out the right to provide a specific service or operate a publicly owned asset. Mostly the public sector is responsible for the capital investments, and the contract is usually for a pre-specified period of 1 - 3 years. In this model of PPP, the private sector must carry out the service at the agreed cost and must meet performance standards set by the public sector (Inekwe, 2015). The public sector still retains ownership and all-encompassing management of the public asset or facility.

i. Management Contract: Here a private sector contracts to operate, maintain and manage a government owned entity and manages the marketing and provision of service (Obozuwa, 2013). Usually, this type of contract is limited to 3 – 5 years. The public sector maintains control of the asset or facility under this contract, but the private sector is allowed to spend its own money in it. Any private investment is carefully assessed in terms of its contribution to operating efficiencies and cost savings over the contract's length. The longer the contract period, the greater the chance for increased private investment because there is more times to recoup any investment and gain a fair return. This contractual partnership is used by several municipal municipalities to provide wastewater treatment facilities.

ii. Lease Contract: Lease can be defined as the conveyance by a lessor to a lessee of the right to use or operate an asset or facility, usually for a specified period of time in return for rent. In these agreements, the private sector rents or purchases an existing facility from a government entity, spends its own money to renovate,

modernize, or extend the facility, and then assumes full ownership and maintenance of the asset or facility under a contract with the government. The contract periods are usually between 8-15 years. It is also possible to have a model where the private sector finances and builds a new facility, which it then leases out to a public sector. The public sector makes scheduled lease payments to the private sector (Inekwe, 2015).

iii. Concession Contract: Concession is a cooperative arrangement between a public sector and private sector to design and develop facilities or assets through combination of participants which include the financiers and the contractors or consultants. The private sector in return is given the right to receive revenue from operating the infrastructure. The concession period is usually between 25-30 years. Concession contracts are typically defined by the following four features:

iv. The contract governs the relationship between the concession-granting authorities i.e. the government and the private concessionaire.

v. The concession is awarded for a pre-specified but potentially renewable period, during which the private sector enjoys the exclusive right to use the assets, exploit existing facilities, and develop new ones. The contract determines conditions under which the private sector uses these facilities and the prices at which it provides the service. The facility or asset continues to be publicly owned.

vi. The private sector i.e. the concessionaire is responsible for all investments and new facility development, many of which are listed in the contract and are subject to state or regulatory oversight. The concessionaire maintains ownership and usage rights over the new properties until the contract expires, at which

point they are handed over. A provision providing reimbursement for investments not completely amortized by the end of the concession period, as well as provisions specifying reasons and remedies for contract early termination and indicating penalties and fines for noncompliance with agreed-upon terms, may be included in the contract.

vii. The concessionaire is paid directly from users based on contractually defined tariffs (with reasonable criteria for review and adjustment). The theory of "effective financial equilibrium" – enabling the firm to obtain a reasonable rate of return on the assets –is generally used to control these prices by rate-of-return or price-cap mechanisms. Compensation mechanisms are formed if sales do not meet expenses.

2.3 Benefits of Public-Private Partnership in Remodelled Markets

PPPs have become a worldwide phenomenon due to the three key types of benefits they provide: the ability to create innovative infrastructure services despite short-term financial constraints; increased service efficiency and creativity through the use of private sector expertise and performance incentives; and finally, value for money realized through procurement, design, and operating efficiencies (Bwanali and Rwelamila, 2016):

i. Accelerated infrastructure development: Many governments around the world, according to the Commonwealth Secretariat (2010), are limited in the amount of money they may borrow to invest in infrastructure projects. This is particularly true for greenfield projects like a new power plant or a major toll road, which usually require hundreds of millions of dollars in upfront capital. The problem is most acute in poorer countries, where infrastructure needs are high in comparison to the size of economies and fiscal capacity is often severely

restricted, and where there are many competing demands for scarce resources. To reverse years of underinvestment in Africa's infrastructure, high-level political will, wider social consensus, and a complex rethink of how African states can finance and handle infrastructure investments are all needed. Some African governments have entered into public-private partnerships (PPPs) to provide and operate infrastructure that was previously funded by the government. PPPs add private sector funds and management skills to the public sector that would otherwise be unavailable.

ii. Improved service quality**:** The specialist expertise brought in by the private sector enable PPPs to have the ability to offer enhanced creativity and improved service efficiency. This is possible because of the commercial reward structures in place to achieve increased performance over the contract's life cycle.

iii. Value for money (VFM): The cost-benefit factor, also known as value-for-money, is becoming increasingly important in PPP decisions. The underlying point is that the private sector offering public services is a stronger alternative to the government providing the same service through its line departments and bureaucratic administrations. Governments may use PPPs to bring private sector resources into a project while also using private sector management and technical skills. PPPs support taxpayers by transferring risks to the private sector, which it can handle more cost efficiently, either by lowering long-term project costs, improving service efficiency, or both. According to the Commonwealth Secretariat (2010), PPPs allow governments to offload some of the risks associated with infrastructure projects to the private sector. This will result in VfM because the private sector, in principle, brings professional experience and a commercial approach that lowers project costs over the

contract's entire life cycle. Furthermore, taxpayers have more confidence about the total cost of infrastructure projects because cost overrun costs are minimized or passed on to private investors.

According to (Colverson, 2011, 2012) as reported by Dabak (2014), the following benefits can also be derived from PPP initiatives:

i. Value for money: this is a way of using private sector expertise and technologies to execute projects more quickly and thereby resulting in lower costs or a better product.

ii. Optimization of design and operation: Using an output-based specification allows for and encourages private-sector innovation in the project's design, service, and maintenance, with the goal of increasing efficiency while lowering costs over the project's entire life cycle.

iii. Quicker delivery of project: PPPs enable projects to be completed more rapidly and on budget than those assigned to public sector because private sector capacity and flexibility are seen as superior to public sector. PPP reduces bureaucratic tendencies, allowing projects to be completed on schedule.

iv. Risk transfer: To ensure the project's continuity and benefit, project risks (such as funding, timeframe, planning approvals, and community consultations) are transferred to the party best prepared to deal with them, both in terms of expertise and costs.

v. Increased investment: Governments may execute projects more regularly and on a larger scale in public infrastructure because the private sector finance aspect eliminates the need to collect or budget additional funds, as is the case in traditional procurement.

vi. Increased budget/financing capacity: The transfer of responsibility and risk for certain project elements to the private sector protects governments from unexpected financial liability resulting from cost overruns, delays, or operational problems that would otherwise have a negative effect on the budget bottom line. The project's finances are guaranteed for the duration of the contract and are not subject to cyclical political budget changes, allowing for better investment planning and efficiency during the project's management, operation, and maintenance phases.

vii. Improved service delivery: PPP enables both the government and the private sector to work within their areas of expertise: the government in policy and governance, and the private sector in design, development, service, and management. Payments tied to performance goals or expectations include an opportunity to succeed that is all too frequently lacking in public service delivery.

viii. Access to additional capital/off-balance sheet financing: Since the private sector provides all or a substantial portion of the financing in PPPs, the government is not responsible for increasing funds or changing budgets to allow for large infrastructure investment. This is especially useful during times of fiscal crisis, when the government is either short on funds or has a low credit rating and is unable to collect the required funds. PPPs are registered on balance sheets in accordance with international and national accounting principles, but the problem is far from settled.

ix. Political advantage: PPP agreements provide political power in terms of public opinion and financial management credentials, as projects are completed on schedule and on budget, and provide superior quality facilities or services.

x. Private sector growth and stability: PPPs offer the private sector access to low-risk, high-return, long-term investment opportunities backed by government contracts. These types of agreements ensure private capital flows, provide investment opportunities, and boost local business and job markets.

2.4 Risks Associated with PPP in Remodeled Markets

Due to the unpredictability of project risk, risk allocation between the private and public sectors is a challenging aspect of PPPs (Obozuwa, 2013). As a result, if the PPP is correctly built from the start, these performance improvements will be passed on to the end user. The cost of non-delivery of services and delays in design, development, and execution of projects, as well as the private sector imperative of business performance, are all factors that go into the VfM consideration. The private sector's involvement is driven by operational efficiency, particularly where contract values and service fees have been predetermined in legal contracts. The required degree of productivity will not be achieved by the private sector party without sufficient risk transfer, which will obscure the benefit gained from the relationship.

PPP risks emerge from the ambiguity surrounding the occurrence of specific incidents and their effects on the project. Given the contract's duration, a variety of incidents, such as changes in government policy or a drop in demand for infrastructure services, may occur. As a result, it's important that threats are appropriately allocated to the party best positioned to manage them if they arise. Market risks, development/planning risks, project risks, political risks, regulatory risks, and financial risks are all common risks associated with the PPP system. (Bwanali & Rwelamila, 2016).

i. Market risks: They are unpredictable risks that occur as a result of market demand for infrastructure services becoming unpredictable. These include, for example, volume risks (which stem from unknowns about the number of users,

as well as their frequency and intensity of use of the infrastructure service) and price risks (which stem from unknowns about the tariff that can be paid for using the infrastructure service) (Commonwealth Secretariat, 2010).

ii. Development/planning risks: These are the dangers that come with organizing or designing projects for private sector involvement. Governments or the private sector may spend a significant amount of money to build a project (by paying for multiple scoping, feasibility, and structuring studies), but they must accept the risk that the project will fail (Commonwealth Secretariat, 2010).

iii. Project risks: Project risks can be divided into start-up risks, such as capital cost overruns and execution delays, and continuing risks, such as operational efficiency, operating costs, and lifecycle costs, and are related to uncertainties in project construction, completion, and activity (i.e. activities that occur after the contract is awarded and occur when executing the PPP project) and financing (Commonwealth Secretariat, 2010).

iv. Political risks: These are threats that occur as a result of conflicts, civil unrest, terrorism, and other events, and include currency trade controls, expropriation, war, and contract violation (Commonwealth Secretariat, 2010).

v. Regulatory risks: These arise from a lack of a well-developed regulatory system that, for example, ensures regulatory independence from the government, regulations for private sector participation in infrastructure, and appropriate periodic tariff reviews, all of which can create significant uncertainty for lenders and investors in the infrastructure sector (Commonwealth Secretariat, 2010).

vi. Financial risks: Financial risks such as currency appreciation/depreciation and interest rate fluctuations can have a significant effect on costs and revenues for

infrastructure projects. The ability to hedge financial risks is determined by the extent of capital market growth and/or access to specialized hedging facilities (Commonwealth Secretariat, 2010).

The allocation of these risks between the public and private sectors is also critical to the design of a PPP, according to the Commonwealth Secretariat (2010), in order to ensure that the PPP delivers VfM. In a PPP, the most important concept for risk allocation is to give the risk to the party who can better handle it (Bwanali & Rwelamila, 2016)

2.5 Concept of Infrastructure

Infrastructure refers to the physical and intangible assets, networks, and human resources that enable the world's economy and civil society to operate and develop. Airports, bridges, ports, railway networks, electricity and gas, water sources, telecommunications, and waste management and recycling are all examples of infrastructure. Schools and colleges, police stations, courthouses and correctional facilities, the educational system, and public buildings are all examples of social infrastructure that help to grow human resources (Adamu & Manase, 2015; Regan *et al*., 2015). Infrastructure, as described by the Longman online dictionary (2014), is the basic systems and structures that a country or entity requires to function properly, such as highways, railways, and banks. Roads, bridges, tunnels, water supplies, buildings, sewers, telecommunications, and other basic services and structures that serve a community are examples of infrastructure. Infrastructure, according to Fulmer (2009), infrastructure is "the physical components of interconnected networks that provide goods and services necessary to enable, maintain, or improve societal living conditions." Adamu (2016) assumes that infrastructure is a national asset that has contributed positively to the nation’s economy output capacity and productivity growth

in the area of social and economic development. He further goes on to classify economic and social infrastructures under PPPs. (Fig 2.2)

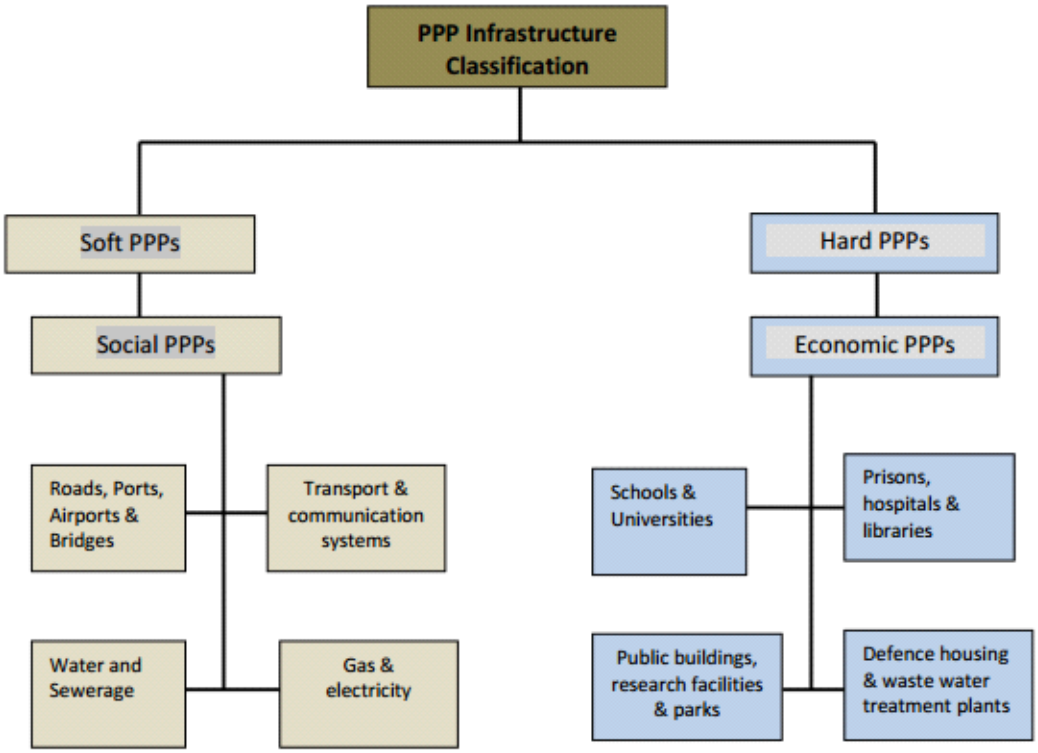

Figure 2.2: Classification of Infrastructure under PPP.
Source : adapted from Adamu (2016)

Torrance (2009) classified infrastructure into three types: "(1) transport- roads, rail tracks, and airports with users' fees; (2) regulated- water, electricity and gas distribution networks with regulated service contracts with availability fees; and (3) social - schools and hospitals, for which governments pay an availability fee over a 20- to 30-year term"

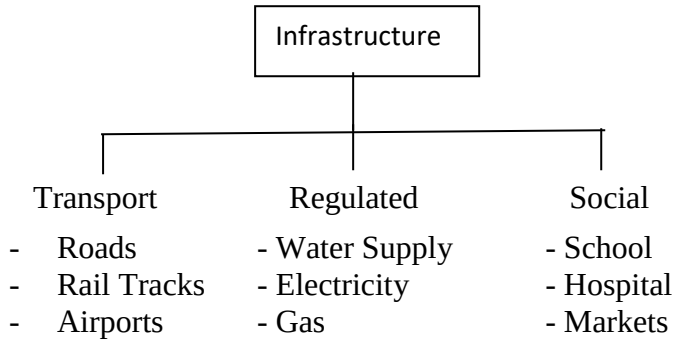

Figure 2.3: The three classification of infrastructure
Source: Adapted from Torrence (2009)

2.6 Classification of Infrastructure

Malafeev and Baskakova (2017), described infrastructure as a multi-level system of facilities which consist of tangible and intangible assets. Malafeev and Baskakova (2017) further identifies two differently directed vector that best describe the characteristics of these facilities. The first is a range of qualities of infrastructure facilities such as; technological, economic and institutional qualities. The second is a range of functions of infrastructure facilities which is determined by the needs of household, enterprises as a whole and varies depending on the types of infrastructure. The research further classified infrastructure into three main concepts, namely;

i. Basic Infrastructure (the core concept)

ii. Institutional Infrastructure (the inner shell)

iii. Social Infrastructure (the outer shell)

2.6.1 Basic infrastructure (the core*)*

Malafeev and Baskakova (2017) described basic infrastructure as those that maintains smooth functioning of any other type of infrastructure. It can also be referred to as economic or main infrastructure. It is usually the responsibility of the owners and developers to provide these infrastructures (Kihato, 2009). Basic infrastructures

components include; roads and railways, seaports and airports, power, gas and water supply networks.

2.6.2 Institutional infrastructure (the inner shell)

This concept of infrastructure can also be referred to as intangible asset or soft infrastructures. Institutional infrastructure is a product of human capital, it determines the condition for basic infrastructure functioning and modernization. They include; systems of health care, education and public order, systems of laws and regulations and so forth. (Malafeev & Baskakova, 2017)

2.6.3 Social infrastructure (the outer shell)

Social Infrastructure can also be referred to as supportive facilities (for example, government, health care and educational institutions' buildings, facilities of market infrastructure).It maintains expanded reproduction of human capital (Malafeev & Baskakova, 2017).

2.7 Public-Private Partnership Application in Nigeria

Nigeria has used Public-Private Partnership procurement arrangements for infrastructure growth. The numerous PPP projects initiated, proposed, and implemented for the growth of the Nigerian economy record various attempts by both the Federal and State governments to bridge the country's infrastructure gap. The concession of Murtala Mohammed International Airport to Bi-Courtney Aviation services by the Federal Government of Nigeria (FGN) from 2003 to 2007 was Nigeria's first PPP operation. Since then, the project has been completed and is now operational. The Nigerian government used the lessons learned from this project to launch a subsequent PPP as a solution to the country's infrastructure deficit, with three sectors of the economy listed as key areas for the country's overall growth. PPP projects have been invested in

airports, infrastructure/urban design, highways, bridges, electricity, agriculture, social infrastructure, transportation, and water facilities in various States of the Federation.

Other PPP projects in Nigeria include the Katampe District infrastructure design, finance, construct and transfer undertaken by Federal Capital Development Authority in Abuja and Lagos-Ibadan toll road undertaken by Federal Ministry of Works, rehabilitation and upgrade of Murtala Mohammed Airport road in Lagos undertaken by Federal Ministry of Works, 2nd Niger Bridge also undertaken by Federal Ministry of Works, Transmission Company of Nigeria large hydro power plant also undertaken by Federal Ministry of Power (Nigeria PPP Review, 2012).

Development of infrastructure means complete modernization of the economy which leads to a significant increase in output and productivity. Infrastructure consists of physical structures, fundamental facilities and systems required for sustaining and functioning of a society. It is essential for business growth, social welfare, and long-term sustainability in any country (Bamidele *et al.*, 2015). The poor state of infrastructure in Nigeria, Africa's most populous nation, has a serious effect on peoples' lives. The lack of efficient transportation infrastructure (which includes; road, rail, airports and seaports), housing problem, lack of clean water and sanitation infrastructure and also lack of educational infrastructures makes the Nigerian states uninhabitable and hinders economic development (Bamidele et al., 2015). Also, according to Adamu (2016) with Nigeria's current population of about 170 million people, the country is currently facing a massive housing deficit of about 17 million units, and a minimum of one million additional units per year is expected to reduce the massive deficit and avoid a housing crisis in the country. The reasonably large infrastructure opportunities in the Nigeria market require a close collaboration between the private and public agencies (Adekalu, 2016).

PPP has been identified as part of the solution to the huge infrastructure deficit of Nigeria because of its capacity to; attract finance, mobilize technical and managerial knowledge, share risks, avoid the usual rise in cost associated with traditional construction contracts (Africa Development Fund, 2010).

The Infrastructure Concession Regulatory Commission (ICRC, 2013) established four key windows for evaluation of critical success factors for governments to use public-private partnerships in infrastructure construction and service delivery:

(a) To make the best use of available capital and increase service

(b) To improve current organizational plans and objectives in order to provide more opportunities for openness and fair evaluation

(c) To attract a more professional workforce with a competitive edge and a focus on productive performance; and

(d) To reform agencies by reallocating positions, the incentives, and improving transparency.

2.8 Critical Success Factors for Implementation of PPP Projects

Dada and Oladokun (2012) and Olaniyan (2013) gave the idea of critical success factors as originated from Rockart (1982). It was first applied to construction management research in the sense of information technology and project management. The main areas of operation in which favorable outcomes are completely important for a manager to achieve his or her objectives are referred to as critical success factors (Olaniyan, 2013). Critical success factors are those factors necessary for successful implementation of PPP projects. Qiao *et al.* (2001) in a BOT project in China considered eight success factors which include; appropriate project identification, stable political and economic situation, attractive financial package, acceptable toll/traffic levels, reasonable risk allocation, selection of suitable subcontractors, management control and technology

transfer. In an investigation by Mohammed (2011) for a PPP project in Kuwait construction industry, the five identified critical success factors include; effective procurement, project implementability; available financial market, government guarantee and favorable economic conditions. Olaniyan (2013) also identified critical success factors as project management expertise, transparent and sound regulatory framework, comprehensive feasibility study, commitment, private sector financial capability, integrity, government guarantee, long term planning, effective communication, realistic cost/benefits assessment, transparent procurement process, good governance, well organized public agency, sound economic policy, political stability and supports. Furthermore, critical success factors such as well-organized private sector, stable macroeconomic environment, appropriate risks allocation, integration, competitive procurement process, strong private consortium, adequate financial market and institutionalized competitive roles, complexity of project, favorable inflation, exchange and interest rates, government involvement, converging working cultures, technical innovation and local participations (Olaniyan, 2013).

In a study by Dahiru and Muhammad (2015) identified the critical constraint factors in PPP were identified. These include; political, economic, legal, and technical factors. The study revealed that, good governance, protective policy against political risks, appropriate risk allocation and risk sharing, strong private consortium, political stability and favourable legal framework top the list of the most critical Success Factors for realizing PPP projects in Nigeria. Other success factors identified include government involvement in providing vital guarantees, genuine commitment of partnering parties, and political support for long-term loans.

Jefferies (2006) maintains that critical success factors in PPP can be said to significantly include; financial capability and support, technical innovation, avoiding delays and cost

overruns, expertise, appropriate risk allocation grant, shared authority/consensual decision-making and resources mobilization and linkages between parties.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Research Design

Design in research is the overall plan for connecting the conceptual research problems to the pertinent empirical research. It articulates what data is required, what methods are going to be used to collect and analyse the data (Van-Wyk,&Toale 2015). It also constitutes the measurement of analysis and collection of data. Clearly research problem determines the type of research design (Ali, 2017). This study adopted a survey design approach using quantitative data. Survey design was suitable for this study because the factors considered are those identified from the literature to which their applicability in construction project is to be verified in this study. Data was collected through structured questionnaire administered to respondents within Abuja, the Federal Capital Territory (FCT) of Nigeria. Abuja was selected because is one of the epicenter of construction activities in Nigeria.

3.2 Research Population

A research population is generally a large collection of individuals or objects that is the main focus of a scientific query (Mohammed, 2017). Population can be defined as all people or items (unit of analysis) with the characteristics that one wishes to study. The unit of analysis may be a person, group, organization, country, object, or any other entity that you wish to draw scientific inferences about (Bhattacherjee, 2012). The target populations to be considered are 48 Developers, 39 Consultants and 33 Area Councils Works Department Staff. The study area for this research was Abuja so the finite population of Developers and Area Councils Staff were considered.

3.3 Sample Frame

This is the process of defining the population, a selection of a representative of the population. It can also be defined as the complete list of the population from which the sample is selected (ResearchLifeLine, 2012). More also, sampling frame according to Carl *et al.* (2003) is the source material or device from which a sample is drawn. The sample frame for this research include 48 developers, 39 consultants and area 33 councils staffs being in the best position to evaluate the performance of PPP on remodeling of markets based on their involvement at inception stage, construction stage and concession period.

3.4 Sample Size

According to Trochim (2000), for a small population of interest, sample of about 10-30% of that population is adequate; for a large population of interest (over 150,000), a sample as low as 1% is adequate. The study sample size used was 120. 120 questionnaires were distributed to the target respondents in which 105 were retrieved which represent 88% of the questionnaires retrieved.

3.5 Sampling Technique

In order to guarantee equal representation for each of the identified groups of professionals in the population, the purposive sampling technique was adopted. The study will make use of the percentage selection from the target population.

3.6 Method of Data Collection

Data as widely defined are raw facts. The research method is quantitative which is in line with the positivist paradigm. It is quantitative because a structured questionnaire containing a list of literature-based information prepared by the researcher and

administered to the respondents. This helps to validates information from the literature in determining the frequencies and percentages of occurrence.

3.7 Data Collection Instrument

Primary data collection instrument consists of survey questionnaire drawn based on the identified critical success factors on existing literatures on critical success factors was used. The structured questionnaire was administered on participants who had been involved in the execution of PPP projects on remodelled markets in Nigeria. The questionnaire made up of open ended questions and close ended questions. The close ended questions comprised 5 point likert/frequency scale, dichotomous, etc. The five point's likert scale questions were rated from 1(not significant/never/not related) to 5 (very significant/always/high, related). The literature reviewed was used to develop the questionnaire viz-a-viz the research questions, and objectives of the research. The questionnaire was based on majorly into two sections section 'A': Socio-Demography and section B: Rating of Critical Success Factors, PPP Models, associated Risks and Risks Allocation in relationship to markets remodeling. The questionnaire consisted of 16 main questions in all.

3.8 Method of Data Analysis

The results of the questionnaire were the only research data utilized in the study. The raw facts collected were coded and entered into the Statistical Package for Social Sciences (SPSS) and analysed to yield result of analysis such as mean and percentage and inferential statistics One-way ANOVA.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Socio-Demographic Characteristics of Respondents

A total of 105 respondents responded in this study. Majority (55.3%) were from the private organization, 35.2% were consultants while 9.5% were from the public organizations. Highest qualification of the respondents was mostly BTech/BSc (88.6%). Also, majority (55.3%) was quantity surveyor and 30.5% had MNIQS professional qualification. Slightly above half (55.3%) of the respondents have been working between eleven and twenty (11-20) years. See table 4.1.

Table 4.1: Socio-Demographic Profile of Respondents

Variables	Respondents characteristics	Frequency	%
Types of respondent's organization	Public organization	10	9.5
	Consultant	37	35.2
	Private organization	58	55.3
Highest Educational Qualification	OND	0	0.0
	HND	4	3.8
	BTech/BSc	93	88.6
	MTech/MSc	8	7.6
Profession of respondent	Quantity surveyor	58	55.3
	Architect	16	15.2
	Builder	21	20.0
	Civil engineer	10	9.5
Professional qualification	MNIQS	32	30.5
	MNIOB	18	17.1
	MNIA	12	11.4
	MNSE	6	5.7
	FNIQS	1	1.0
	No qualification	36	34.3
Years of working experience	0-10	42	40.0
	11-20	58	55.3
	21-30	5	4.7

Source*:* Researcher's field survey, (2021)

4.2 Respondents' Involvement in Public-Private Partnership Project in Remodeling of Markets

In Table 4.2, all the respondents have been involved in public private partnership before, while 94.3% have been involved in Public Private Partnership on remodeling of markets projects. Majority (49.6%) rated that the level of adoption of PPP in the FCT was 'moderate', 19.0% rated it 'very high', 17.1% rated it 'high', 5.7% rated it 'low' while 8.6% rated it 'very low'. Also, 54.3% reported they will choose PPP over traditional method of procurement and 57.1% think PPP is a better and more effective method of infrastructure procurement.

Table 4.2: Involvement in Public-Private Partnership Project in Remodeling of Markets

S/N	Variables	Responses	Frequency	%
1)	**Ever been involved in a Public Private Partnership (PPP) projects before**	Yes	105	100
		No	0	0.0
2)	**For how long have you been involved (in years)**	0-5	78	74.3
		5 years and above	27	25.7
3)	**Ever been involved in a Public Private Partnership (PPP) on remodeling of markets project before**	Yes	99	94.3
		No	6	5.7
4)	**Rate the level of adoption of PPP in FCT, Abuja**	Very high	20	19.0
		High	18	17.1
		Moderate	52	49.6
		Low	6	5.7
		Very low	9	8.6
5)	**Will you like to choose PPP over traditional procurement Methods**	Yes	57	54.3
		No	48	45.7
6)	**Do you think PPP is a better and more effective method of infrastructure procurement**	Yes	60	57.1
		No	45	42.9

Source*:* Researcher's field survey, (2021).

4.3 Remodeled Markets in FCT through Public-Private Partnership

Table 4.3, the respondents have been involved in seven (7) remodeled markets in FCT out of which three have been completed while four are on-going. It was gathered that these markets were/are financed with Off-takers resources and experienced time

overrun. The three completed markets were completed beyond the contract period while the on-ongoing ones are currently experiencing time overrun.

Table 4.3: Objective Data on Markets Remodelled Through Public-Private Partnership

S/N	Markets	Contract Period	Commencement Date	Completion Date	Time Overrun	Source of Finance
1)	Kubwa Model Market	2years	2013	2017	2years	Off-takers
2)	Kubwa Maitama Market	2years	2016	2019	1year	Off-takers
3)	Utako Modern Market	3years	2017	ongoing	1year	Off-takers
4)	Dawaki Modern Market	2years	2016	2019	1year	Off-takers
5)	Kukuwaba Transit and Market	2years	2016	Ongoing	3years	Off-takers
6)	Garki Model Market	2years	2017	Ongoing	2years	Off-takers
7)	Utako Motor Park	2years	2020	Ongoing		Off-takers

Source*:* Researcher's field survey, (2021).

4.4 Critical Success Factors Relating to Markets Remodeling using PPP in objective three as presented.

The critical success factors are presented in Table 4.4. The preliminary qualification evaluation phase has a mean and standard deviation of 23.9 and 3.1 respectively out of 30.0 score obtainable. The tendering phase has a mean score of 15.0 and standard deviation of 1.9 out of 20.0 score obtainable. The concession of award phase has a mean and standard deviation value of 12.2 and 1.74 respectively. Construction phase has mean score of 20.3 and standard deviation of 2.4. Operation phase has a mean of 14.7 and standard deviation of 2.8 while transfer phase has a mean of 11.2 and standard

deviation of 2.4. From the mean score, most of the factors showed to be between 'Moderately Significant' and 'Very Significant'.

Table 4.5, appropriate project identification is ranked 1st as the most critical factor in preliminary qualification evaluation phase with mean score of 4.23. In the same phase of preliminary evaluation, stable political and economic situation and experience with PPP projects by promoter are ranked 2nd and 3rd respectively. Technical solution advance is the most critical factor to be considered in tendering phase with a mean score of 4.12. Equity ratio, attractive financial package and competitive tendering system are ranked 2nd, 3rd and 4th respectively. Concrete and precise concession agreement, reasonable risk allocation and special guarantees by the government are ranked 1st, 2nd and 3rd respectively in the concession award phase. At the construction phase of remodeling markets, quality control and supervision is the most critical factor to be considered while selection of suitable subcontractor, good relationship with government and standardization of engineering contract are ranked 2nd, 3rd and 4th respectively. At the operation phase of markets remodeling, management control is the most critical factor to be given attention. Public safety and sound environment impact are ranked 2nd and 3rd respectively. Operation in good condition, overhauling guarantees and technology transfer are ranked 1st, 2nd and 3rd respectively in the transfer phase.

Table 4.4: **Critical Success Factors as they Affect Markets Remodelling Using PPP**

Factors	NS (%)	SS (%)	MS (%)	S (%)	VS (%)	Mean
Preliminary Qualification Evaluation Phase						
Appropriate project identification	-	-	35 (33.3)	11 (10.5)	59 (56.2)	4.23
Stable political and economic situation	-	-	22 (21.0)	48(45.7)	35(33.3)	4.12
Favorable legislation regulations	-	12(11.4)	22 (21.0)	35 (33.3)	36(34.3)	3.90
Experience with PPP projects by promoter	-	-	33(31.4)	48(45.7)	24(22.9)	3.91
The capability of project promoter	-	-	24(22.9)	69(65.7)	12(11.4)	3.89
Lack of funds for remodeling	-	-	47(44.8)	22(21.0)	36(34.3)	3.89
	Mean=23.9; SD=3.1					
Tendering Phase						
Competitive tendering system	12(11.4)	-	35(33.3)	35(33.3)	23(21.9)	3.54
Attractive financial package	-	-	47(44.8)	58(55.2)	-	3.55
Technical solution advance	-	-	23(21.9)	46(43.8)	36(34.3)	4.12
Equity ratio	-	-	47(44.8)	34(32.4)	24(22.9)	3.78
	Mean=15.0; SD=1.9					
Concession Award Phase						
Concrete and precise concession agreement	-	-	35(33.3)	12(11.4)	58(55.2)	4.22
Reasonable risk allocation	-	-	34(32.4)	24(22.9)	47(44.8)	4.12
Special guarantees by the government	-	12(11.4)	12(11.4)	58(55.2)	23(21.9)	3.88
	Mean=12.2; SD=1.74					
Construction Phase						
Quality control and supervision	-	-	-	57(54.3)	48(45.7)	4.46
Selection of suitable subcontractor	-	-	22(21.0)	47(44.8)	36(34.3)	4.13
Standardization of engineering contract	-	11(10.5)	11 (10.5)	59(56.2)	24(22.9)	3.91
A multidisciplinary and multinational team	-	-	45(42.9)	48(45.7)	12(11.4)	3.69
Good relationship with government	-	-	12(11.4)	69(65.7)	24(22.9)	4.11
	Mean=20.3; SD=2.4					
Operation Phase						
Management control	-	-	23 (21.9)	46(43.8)	36(34.3)	4.12
Training local staff	12(11.4)	12(11.4)	57(54.3)	12 (11.4)	12 (11.4)	3.00
Sound environment impact	-	12(11.4)	46(43.8)	11 (10.5)	36(34.3)	3.68
Public safety	-	-	34 (32.4)	47 (44.8)	24 (22.9)	3.90
	Mean=14.7; SD=2.8					
Transfer Phase						
Technology transfer	12(11.4)	-	34 (32.4)	35(33.3)	24(22.9)	3.56
Operation in good condition	-	-	46 (43.8)	23 (21.9)	36 (34.3)	3.90
Overhauling guarantees	-	-	35 (33.3)	58 (55.2)	12 (11.4)	3.78
	Mean=11.2; SD=2.4					

Source: Researcher's field survey, (2021)

4.5 Analysis of variance (ANOVA) for the critical success factors on models of PPP

Analysis of variance (ANOVA) on critical success factors on models of PPP according to level of usage is presented in table 4.5.1 and 4.5.2. The summary of the analysis show a significant level of the factors (f=148.5; p=0.000; d=6). The results also showed that the factors contributed 89.5% to the PPP models in remodeling markets projects (R= 0.949; Adjusted R Square=0.895; S.E=1.5).

Transfer phase contributed more to the level of significant (t=13.4, Sig. =0.000) followed by Preliminary qualification evaluation phases (t=10.6, Sig. =0.000), concession award phase (t=9.2, Sig. =0.000), operation phase (t=3.2, Sig. =0.002), tendering phase (t=2.6, Sig. =0.010) and construction phase which is not significant (t=1.6, Sig. =0.106).

Table 4.5: **Ranking of Critical Success Factors of remodeling markets using PPP**

Factors	Mean	Rank
Preliminary Qualification Evaluation Phase		
Appropriate project identification	4.23	1st
Stable political and economic situation	4.12	2nd
Experience with PPP projects by promoter	3.91	3rd
Favorable legislation regulations	3.90	4th
The capability of project promoter	3.89	5th
Lack of funds for remodeling	3.89	5th
Tendering Phase		
Technical solution advance	4.12	1st
Equity ratio	3.78	2nd
Attractive financial package	3.55	3rd
Competitive tendering system	3.54	4th
Concession Award Phase		
Concrete and precise concession agreement	4.22	1st
Reasonable risk allocation	4.12	2nd
Special guarantees by the government	3.88	3rd
Construction Phase		
Quality control and supervision	4.46	1st
Selection of suitable subcontractor	4.13	2nd
Good relationship with government	4.11	3rd
Standardization of engineering contract	3.91	4th
A multidisciplinary and multinational team	3.69	5th
Operation Phase		
Management control	4.12	1st
Public safety	3.90	2nd
Sound environment impact	3.68	3rd
Training local staff	3.00	4th
Transfer Phase		
Operation in good condition	3.90	1st
Overhauling guarantees	3.78	2nd
Technology transfer	3.56	3rd

Source*:* Researcher's field survey, (2021)

4.6 PPP Model According to their Level of Usage in Remodeling of Market

The PPP model according to their level of usage in remodeling of market is presented in table 4.6. Responses to the factors ranged from 'always, often, sometimes, rarely and never'. The mean score of all the factors was 41.9 with standard deviation of 4.6. Always was scored as 5.0, often was scored as 4.0, sometimes was scored 3.0, rarely was scored 2.0, and never was scored 1.0 point.

Table 4.6: Analysis of variance (ANOVA) for the critical success factors on models of PPP

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.949[a]	.901	.895	1.50352

Table 4.7: Analysis of variance (ANOVA) for the critical success factors on models of PPP

Critical Success Factors	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	18.129	2.524		7.182	.000
Preliminary evaluation phase	-1.138	.108	-.755	10.579	.000
Tendering phase	-.364	.138	-.149	2.645	.010
Concession award phase	2.352	.257	.887	9.167	.000
Construction phase	.150	.092	.077	1.633	.106
Operation phase	-.473	.148	-.289	3.198	.002
Transfer phase	2.822	.211	1.476	13.374	.000

a. Dependent Variable: models

Source*:* Researcher's field survey, (2021)

Table 4.7: PPP Models According to Usage in Markets Remodeling

S/N	Models	Always	Often	Sometimes	Rarely	Never	Mean
1)	**Turnkey**	22(21.0)	24 (22.9)	35 (33.3)	12 (11.4)	12(11.4)	3.30
2)	**Design Build and Operate**	59(56.2)	46(43.8)	-	-	-	4.56
3)	**Operation and Maintenance**	35(33.3)	59(56.2)	-	11(10.5)	-	4.12
4)	**Design Build**	35(33.3)	36(34.3)	23(21.9)	11(10.5)	-	3.90
5)	**Design, Build, Operate and Transfer**	46(43.8)	48(45.7)	11(10.5)	-	-	4.33
6)	**Build-Own-Operate**	12(11.4)	23(21.9)	46(43.8)	24(22.9)	-	3.22
7)	**Build, Own, Operate and Transfer**	11(10.5)	36(34.3)	35(33.3)	23(21.9)	-	3.33
8)	**Design-Build-Finance- Operate /Maintain**	23(21.9)	36(34.3)	34(32.4)	-	12(11.4)	3.55
9)	**Build-Operate and Transfer**	23(21.9)	58(55.2)	24(22.9)	-	-	3.99
10)	**Operations, Maintenance and Management**	12(11.4)	57(54.3)	36(34.3)	-	-	3.77
11)	**Design, Build, Operate and Maintain**	35(33.3)	35(33.3)	23(21.9)	12(11.4)	-	3.89
		Mean=**41.9;** SD=**4.6**					

Source*:* Researcher's field survey, (2021).

4.7 Associated Risk with PPP in Remodeling Markets

The associated risk with PPP in remodeling markets is presented in table 4.7. The overall mean score of the risk was 60.1 with standard deviation of 5.9. This indicated that most of the risks were 'very significant'

NS: Not Significant, **SS:** Slightly Significant, **MS:** Moderately Significant, **S:** Significant **VS:** Very Significant. **NS:** Not Significant, **SS:** Slightly Significant, **MS:** Moderately Significant, **S:** Significant **VS:** Very Significant. Note that; **VS** was scored 5, **S** was scored 4, **MS** was scored 3, **SS** was scored 2 while **NS** was scored 1.

Table 4.8: Associated Risk with PPP in Remodeling Markets in Objective 4 as Presented.

Risk Associated with PPP	NS (%)	SS (%)	MS (%)	S (%)	VS (%)	Mean
Market risks						
Volume risk	11(10.5)	12(11.4)	12(11.4)	23(21.9)	47(44.8)	3.79
Price risk	-	11(10.5)	11(10.5)	36(34.3)	47(44.8)	4.13
Development/planning risks						
Scoping, feasibility and structuring	-	11(10.5)	-	35(33.3)	58(55.2)	4.34
Project risks						
Capital cost overrun	-	11(10.5)	-	36(34.3)	59(56.2)	4.46
Completion delays	-	-	23(21.9)	35(33.3)	47(44.8)	4.23
Operating performance	-	-	45(42.9)	48(45.7)	12(11.4)	3.69
Operating costs	-	-	22(21.0)	71(67.6)	12(11.4)	3.90
Lifecycle costs	-	-	58(55.2)	47(44.8)	-	3.45
Political risk						
Currency transfer restrictions	-	11(10.5)	24(22.9)	34(32.4)	36(34.3)	3.90
Expropriation	11(10.5)	-	-	35(33.3)	59(56.2)	4.25
Social unrest	23(21.9)	-	24(22.9)	11(10.5)	47(44.8)	3.56
Regulatory risks						
Regulations for participation	-	-	46(43.8)	59(56.2)	-	3.56
Periodic review of tariffs	-	-	47(44.8)	36(34.3)	22(21.0)	3.76
Financial risks						
Exchange rate appreciation/depreciation	-	-	-	47(44.8)	58(55.2)	4.55
Changes in interest rates	-	-	-	47(44.8)	58(55.2)	4.55
	Mean=60.1; SD=5.9					

Source*:* Researcher's field survey, (2021).

Table 4.10 shows the risk associated to remodeling of markets using PPP arrangement to the actors, the findings revealed that there was associated higher risk with the private sectors (Mean=37.3; SD=1.8) than the associated risk with the Public sector (Mean=34.5; SD=2.1).

Table 4.9: Risks Associated to Remodeling of Markets Using PPP Arrangement to the Actors.

Risk Associated with PPP	Public			Private		
	High (%)	Moderate (%)	Not related (%)	High (%)	Moderate (%)	Not related (%)
Markets risk						
Volume risk	-	43 (41.0)	62(59.0)	12 (11.4)	39 (37.2)	54 (51.4)
Price risk	-	48 (45.7)	57 (54.3)	21 (20.0)	34 (32.4)	50 (47.6)
Development/planning risks						
Scoping, feasibility and structuring	21 (20.0)	34 (32.4)	50 (47.6)	16 (15.2)	89 (84.8)	-
Project risks						
Capital cost overrun	89(84.8)	16 (15.2)	-	16 (15.2)	40 (38.1)	49 (46.7)
Completion delays	78(74.3)	27 (25.7)	-	27 (25.7)	35 (33.4)	43 (40.9)
Operating performance	77(73.3)	28 (26.7)	-	28 (26.7)	65 (59.0)	12 (11.4)
Operating costs	91(86.7)	14 (13.3)	-	14 (13.3)	72 (68.6)	19 (18.1)
Lifecycle costs	87(82.9)	18 (17.1)	-	18 (17.1)	70 (66.7)	17 (16.2)
Political risk						
Currency transfer restrictions	40(38.1)	65 (59.0)	-	16 (15.2)	89 (84.8)	-
Expropriation	35(33.4)	70 (66.7)	-	27 (25.7)	78 (74.3)	-
War/Civil disturbance	65(59.0)	40 (38.1)	-	28 (26.7)	77 (73.3)	-
Regulatory risks						
Regulations for participation	70(66.7)	35 (33.4)	-	28 (26.7)	91 (86.7)	-
Periodic review of tariffs	40(38.1)	65 (59.0)	-	14 (13.3)	87 (82.9)	-
Financial risks						
Exchange rate appreciation/depreciation	16(15.2)	89 (84.8)	-	65 (59.0)	40 (38.1)	-
Changes in interest rates	27(25.7)	78 (74.3)	-	72 (68.5)	33 (31.5)	-
	Mean= 34.5 ;SD=2.1			**Mean= 37.3;SD=1.8**		

The table 4.10 shows the risk associated to remodeling of markets using PPP arrangement to the actors, the findings revealed that there was associated higher risk with the private sectors (Mean=37.3; SD=1.8) than the associated risk with the Public sector (Mean=34.5; SD=2.1).

4.8 PPP Framework for Remodeling of Markets

The PPP framework for remodeling of Markets with respect to the identified critical success factors, peculiar models and associated risks is presented in Figure 4.1. Thirteen propositions (F1-F13) are developed in five categories making use of the identified factors in Table 4.4, peculiar models as analyzed in Table 4.6 and the associated risks as ranked in Table 4.7.

4.8.1 Preliminary evaluation phase

i. F1: The greater the appropriateness of project identification, the higher the possibility of a successful evaluation phase
ii. F2: The more stable the political and economic situations, the better the success to be recorded at evaluation phase

4.8.2 Selection of private organization phase

i. F3: The better the technical solution provided to the identified needs to remodel markets, the more the chance of a private organization being successful
ii. F4: The more favourable the equity ratio is to the government, the higher the chance of a private organization being successful
iii. F5: A concrete and precise concession agreement presented by government or private organization also increase its chance of being successful
iv. F6: The readiness of the private organization to understand, accept and bear the allocated risks increase its chances of being successful

4.8.3 Successful market remodeling phase

i. F7: The quality of the materials and experience of the supervisors engaged during the construction makes markets remodeling to be successful.

ii. F8: Selection of competent subcontractor selection will lead to better construction performance in market remodeling.

iii. F9: Having a good working relationship with the government/area councils technical teams and development control teams makes the construction to be free of delay

4.8.4 Operation phase

i. F10: High level of management control will lead to successful operation of remodeled markets.

ii. F11: The safety of people using the remodeled markets also determine the effectiveness of the operation

4.8.5 Transfer phase

i. F12: The better the state of the remodeled markets determines the swiftness of the transfer to the government authorities.

ii. F13: The overhauling guarantees provided by the private organization, if needed, affect the transfer of remodeled markets.

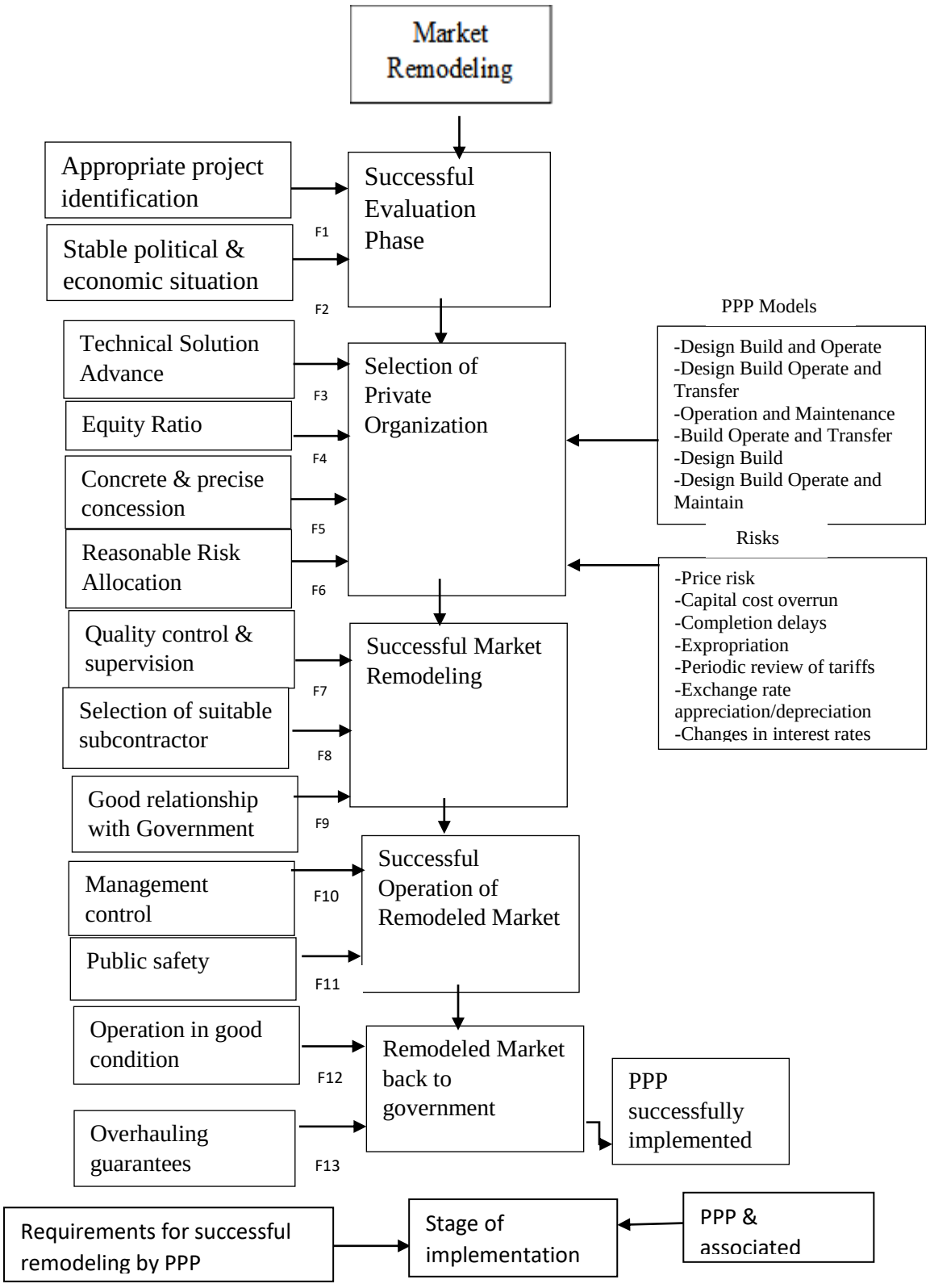

Figure 4.1: PPP framework for remodeling of markets

4.9 Discussion of Findings

This study has been able to evaluate the critical success factors in Public-Private Partnership (PPP) on remodeled markets in the Federal Capital Territory, Abuja, Nigeria. The results have shown that most of the participants were involved in PPP in remodeled markets' project before, and the rate of adoption of PPP in the study areas was moderate. Furthermore, more than half of the respondents reported that the PPP is a better and more effective method of infrastructure procurement.

The critical success factors identified in this study were factors at the preliminary qualification evaluation phase, the tendering phase, concession of award phase, the construction phase, operation phase, and transfer phase. The analysis of variance of these factors to the level of usage of PPP model shows a significant impact of 89.5%. This is an indication that PPP can be effective in markets' remodeling. The result of this finding is in relation to what was reported by Dahiru and Muhammad (2015) and also by Jefferies (2006) where a significant high impact of success factor on PPP was documented.

The level of usage of the PPP models by the participants was high. Most reported that, they always utilize the models of; Design Build and Operate, Design Build Operate and Transfer, Operation and Maintenance. The finding was in line with the study reported by Kwak *et al*., (2009) where the same models were reported to be 'always' utilized.

More so, the associated risk for PPP was documented and for this study, it was reported to be high. As reported in the findings, it was highlighted to be 'very significant' with mean score of 60.1 and SD of 5.9. Risks such as price, completion delays, operating cost were mostly reported with higher significant descriptive score. In terms of risk associated with remodeling of markets using PPP arrangement by the actors, the associated risk for the private sector was more compare to the public sector with mean

score of 37.3 and 34.5 respectively. Overall, in this study, the results has shown significant success factors on remodeling of markets in FCT, Abuja Nigeria as well as the risks associated with it.

The Main Findings of the Study are as follow:

i. In order to evaluate the success of remodeling of markets by PPP arrangement, thorough project identification i.e the need for remodeling and the stability of the political and economic situation of the country should be considered in determining the success of market remodeling at preliminary evaluation phase using PPP arrangement.

ii. The technical solution put forward by interested developers to cater for the project identification outlined during preliminary evaluation phase, the best equity ratio that is more favourable to the public organization, a concrete and precise concession agreement submitted and the assurance of bearing allocated risks are the major factors considered used in selecting developer (private organization) for market remodeling.

iii. For a market to undergo a successful remodeling, the developer must maintain quality control and supervision, competent subcontractors must be selected and the successful developer must maintain a good relationship with the government (public organization).

iv. Public safety i.e. Users safety must be guaranteed and good management control need to be put in place for a smooth operation of remodeled markets. Operating remodeled markets in good condition and guaranteeing overhauling leads to an itch-free transfer of the remodeled markets back to government.

v. Design Build and Operate, Design Build Operate and Transfer, Operation and Maintenance, Build-Operate and Transfer, Design Build, Design Build Operate and Maintain are the suitable PPP Models for Markets remodeling with public-private partnership initiative.

vi. Price risk, capital cost overrun, completion delays, expropriation, periodic review of tariffs, exchange rate appreciation/depreciation and changes in interest rates are mostly the risks associated with remodeling of markets using public-private partnership arrangement and are majorly allocated to the developers (private organization).

CHAPTER FIVE

5.0 CONCLUSION AND RECOMMENDATION

5.1 Conclusion

Based on the aim of this research, which set out to evaluate critical success factors in public-private partnership (PPP) on remodeled markets in Nigeria with a view to improve the usage of PPP procurement method in markets remodeling, the following conclusions were made, based on the results of data analysis contained in the previous chapter.

Transfer phase factors; operation in good environment, overhauling guarantees, technology transfer; Preliminary qualification evaluation phase factors; lack of fund for remodeling, the capacity of project promoter, appropriate project identification, favourable legislation; Concession award phase factors; reasonable risk allocation, special guarantees by the government. Operation phase factors; management control, public safety, training local staff and tendering phase factors; enquiry ratio, technical solution advance and attractive financial package are the critical factors that determine the success of remodeled markets using PPP arrangement while construction phase factors are not significant in the success of this arrangement in Nigeria. Also, the private sector solely relies on the off-takers to finance these projects which always lead to time overrun.

The frequently used PPP models for remodeling of markets include Design Build and Operate, Design Build Operate and Transfer and Operation and Maintenance.

Market risks, project risks, political risk, regulatory risk and financial risks are more associated with remodeling of markets using PPP arrangement by the actors. The private sectors bear more risks than the public sector.

The study finally concluded that Public-Private Partnership (PPP) arrangement is very effective in remodeling of markets in Nigeria.

5.2 Recommendations

From the outcome of the study, the followings are the recommendations drawn:

- It is recommended that the evaluated critical success factors should be given high level of attention at the brief stage of markets remodeling.
- The effective PPP models suitable to markets remodeling as identified should be well considered and adopted in executing similar projects.
- The private sector should be fully aware of the risk associated with her partnership before embarking on such projects while the public sector should be ready to effectively responsible for the risk allocated.
- Proper attention should be drawn to the finance modus operandi of the private sector at the preliminary qualification evaluation phase so as to prevent abandonment and time overrun.
- Since off-takers' resources are used for financing market remodeling, the marketing strategies of the private sector should be reviewed and properly planned in conjunction with the public sector for a prompt delivery.

5.3 Contribution to the Body of Knowledge

The following are the contributions of this study to the body of existing knowledge:

- This study outlined the suitable critical factors that determine the success of public-private partnership in markets remodeling
- The study revealed the risks associated with markets remodeling through public-private partnership arrangement.

- This study evaluated the public-private partnership models that are suitable for market remodeling.
- Finally, this study developed a framework for remodeling of markets through public-private partnership system.

5.4 Area for Further Research

This study evaluates the critical success factors in public-private partnership (PPP) on remodeled markets in FCT Abuja, Nigeria; however, the study can further be extended to other parts of the country.

This study was limited to market facilities. Thus, the success factors of other infrastructural facilities can also be evaluated through PPP arrangement.

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APPENDIX

QUESTIONNAIRE

Department of Quantity Surveying,

Federal University of Technology,

Minna, Niger State.

10th April, 2021

Dear Respondent,

REQUEST TO COMPLETE QUESTIONNAIRE

I am a Postgraduate student in the above address; I am conducting a research on Evaluation of Critical Success Factors (CSF) in Public-Private Partnership (PPP) on Remodeled Markets in Nigeria. This developed tool will help provide information on success factors in PPP on remodeled markets and in policy formulation in areas of remodeling market facilities. All information will be used for research purposes only with utmost confidentiality.

Thank you.

Yours Faithfully,

OLAROTIMI Abiodun Emmanuel

MTech/SET/2017/6931

jossymaths@gmail.com

SECTION A: SOCIO-DEMOGRAPHY

Please tick the boxes that are provided for your comment and/or suggestion as indicated.

(1) Type of respondent's organization

a. Public Organization [ ] b. Consultant [ ] c. Private Organization [ ]

(2) Highest Educational Qualification of respondent

a. OND [ ] b. HND [ ] c. B.Tech/B.sc [ ] d. M.Tech/M.Sc [ ] e. PhD [ ]

(3) Profession of the respondent

a. Quantity surveyor [ ] b. Architect [ ] c. Builder [ ] d. Civil engineer [ ]

d. others (please specify) _____

(4) Professional Qualification of respondent

MNIQS [ ] MNIOB [ ] MNIA [ ] MNSE [ ] Others (specify).....

(5) Years of working experience of respondent

0-10 [ ] 11-20 [ ] 21-30 [ ] 31 and above [ ]

SECTION B

(6) Have you ever been involved in a Public-Private Partnership (PPP) project before?

a. Yes [ ] b. No [ ]

(7) If yes, for how long (in years)……..

(8) Have you ever been involved in a Public-Private Partnership (PPP) on remodeling of markets project before?

a. Yes [ ] b. No [ ]

(9) if yes, kindly fill the table below:

S/N	Name of Markets	Contract Period	Commencement Date	Completion Date	Source of Finance (tick appropriately)	
					OffTakers	Private Organization

(10) Kindly rate the level of adoption of PPP in FCT, Abuja
a. Very High [ ] b. High [ ] c. Moderate [ ] d. Low [ ] e. Very Low [ ]

(11) Will you like to choose PPP over traditional procurement methods? a. Yes [ ] b. No [ ]

(12) Do you think PPP is a better and more effective method of infrastructure procurement?
a. Yes [ ] b. No [ ]

(13) Please rate the following critical success factors as they affect remodeling of markets using PPP initiative in Abuja FCT with the following Scale:

(1) Not Significant (N.S) (2) Slightly Significant (S.S) (3) Moderately Significant (M.S) (4) Significant (S) (5) Very Significant (V.S)

	FACTORS	**5**	**4**	**3**	**2**	**1**
Preliminary Qualification Evaluation Phase						
A	Appropriate project identification					
B	Stable political and economic situation					
C	Favourable legislation regulations					
D	Experience with PPP projects by promoter					
E	The capability of project promoter					
F	Lack of funds for remodeling					
Tendering Phase						

A	Competitive tendering system					
B	Attractive financial package					
C	Technical solution advance					
D	Equity ratio					
Concession Award Phase						
A	Concrete and precise concession agreement					
B	Reasonable risk allocation					
C	Special guarantees by the government					
Construction Phase						
A	Quality control and supervision					
B	Selection of suitable subcontractor					
C	Standardization of engineering contract					
D	A multidisciplinary and multinational team					
E	Good relationship with government					
Operation Phase						
A	Management control					
B	Training local staff					
C	Sound environment impact					
D	Public safety					
Transfer Phase						
A	Technology transfer					
B	Operation in good condition					
C	Overhauling guarantees					

(14) Please rate the following models of PPP according to their level of usage in Remodeling of Markets

(5) Always (4) Often (3) Sometimes (2) Rarely (1) Never

	Models of PPP	**5**	**4**	**3**	**2**	**1**
A	Turnkey					
B	Design Build and Operate (DBO)					
C	Operation and Maintenance					
D	Design Build (DB)					
E	Design, Build, Operate and Transfer (DBOT)					
F	Build-Own-Operate					
G	Build, Own, Operate and Transfer (BOOT)					
H	Design-Build-Finance-Operate/Maintain (DBFO)					
I	Build-Operate and Transfer					
J	Operations, Maintenance and Management					
k	Design, Build, Operate and Maintain (DBOM)					

(15) Please rate the significance of following risks as they relate to remodeling of markets using PPP arrangement

(1) Not Significant (N.S) (2) Slightly Significant (S.S) (3) Moderately Significant (M.S) (4) Significant (S) (5) Very Significant (V.S)

	Risks associated with PPP	**5**	**4**	**3**	**2**	**1**
A	**Market risks**					
	Volume risk					
	Price risk					
B	**Development/planning risks**					
	Scoping, feasibility and structuring					
	Project risks					
	Capital cost overrun					
	Completion delays					
	Operating performance					

	Operating costs					
	Lifecycle costs					
C	**Political risks**					
	Currency transfer restrictions					
	Expropriation					
	War/Civil disturbance					
D	**Regulatory risks**					
	Regulations for participation					
	Periodic review of tariffs					
E	**Financial risks**					
	Exchange rate appreciation/depreciation					
	Changes in interest rates					

(16) Please allocate the following risks as they relate to remodeling of markets using PPP arrangement to the actors.

(1) Not Related (2) Moderate (3) High

	Risks associated with PPP	**Public**			**Private**		
		3	**2**	**1**	**3**	**2**	**1**
A	**Market risks**						
	Volume risk						
	Price risk						
B	**Development/planning risks**						
	Scoping, feasibility and structuring						
	Project risks						
	Capital cost overrun						
	Completion delays						
	Operating performance						
	Operating costs						
	Lifecycle costs						

C	**Political risks**						
	Currency transfer restrictions						
	Expropriation						
	War/Civil disturbance						
D	**Regulatory risks**						
	Regulations for participation						
	Periodic review of tariffs						
E	**Financial risks**						
	Exchange rate appreciation/depreciation						
	Changes in interest rates						

THANK YOU FOR YOUR PARTICIPATION