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DEPARTMENT OF ARCHITECTURE AND BUILDING SCIENCE

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**APPLICABILITY OF PUBLIC PRIVATE PARTNERSHIPS IN DOWN-MARKET
URBAN HOUSING IN KENYA**

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DECLARATION

I, GITI DANIEL MUTEGI, do hereby declare that this project thesis is my original work and has not been submitted for examination in any other university or published in any form.

..... **Date**.....

Signature

This thesis has been submitted for examination with our approval as university Supervisors

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Signature..... **Date**.....

Dr. Edwin Oyaro Ondieki

Signature..... **Date**.....

DEDICATION

I dedicate this work to God for enabling me accomplish my lifelong ambition of attaining a Doctor of Philosophy in Urban Management of the University of Nairobi. I also dedicate this work to my Wife Lydiah Kawira, and my Sons Joash Mutethia and Jethro Mutuma for support during the studies.

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ABSTRACT

The government of Kenya is duty-bound to provide decent, affordable, accessible, and quality housing for all Kenyans as provided in the Constitution of Kenya 2010 and Kenya Vision 2030. Kenya is also party to international conventions and protocols, such as the New Urban Agenda and Sustainable Development Goals (SDGs) which similarly advocate for sustainable housing development. Since independence, the country has grappled with the best strategies that can be employed to satisfy the huge demand for housing, specifically, housing low-income urban households. The inability to compressively address housing supply has seen demand stand at 250,000 housing units per year, accumulating to over two million units at present. Traditionally, housing has been provided through public, private and informal sectors, with minimal interactions by players. This has necessitated the need for collaborations and partnerships between public and private sectors and Public Private Partnerships (PPPs) have been proposed as the best alternative to promote this role. These partnerships have been proposed because they will address the challenges facing public sector housing such as limited capital, expertise, managerial competencies, and technological applications. The main research objective was to evaluate the applicability of PPPs in the development of down-market urban housing. Specifically, to: evaluate the frameworks for the application of PPPs; determine the challenges facing its application; outline the opportunities that the PPP model of procurement offers in its development in Kenya. Delphi methodology, which is an iterative and consensus-building tool, used mostly where group opinions and consensus on a subject matter is required was utilized for the study. Three rounds of iterations involving 88 respondents in three panels comprising of housing practitioners, housing financiers and housing developers were used.

This study discovered that structuring and aligning the interests of the players in PPPs makes it possible to apply the concept in the development and construction of down-market urban housing in Kenya. PPPs have been successfully applied in other sectors where there are legal, regulatory and institutional arrangements to facilitate its application such as the PPP Act, 2013, regulations, institutions and frameworks. Applying the concept in housing is likely to face many challenges including financing, affordability and profit maximization drives, but they can be addressed through collaboration and development of common goals. This study concludes that PPPs are applicable in the sector with the right structuring and recommends that Kenya and other governments promote their use in housing development.

LIST OF ABBREVIATIONS

1. NMR: Nairobi Metropolitan Region
2. PPPs: Public Private Partnerships
3. PPP Act: Public Private Partnerships Act
4. SSA: Sub Saharan Africa
5. OECD: The Organization for Economic Cooperation and Development
6. UN Habitat: United Nations Human Settlements Programme
7. PPIAF: The Public Private Infrastructure Advisory Facility
8. PAT: Principal Agent Theory
9. UN: United Nations
10. ADB: Asian Development Bank
11. GNP: Gross National Product
12. GDP: Gross Domestic Product
13. KNBS: Kenya National Bureau of Statistics
14. UK: United Kingdom/Britain
15. USA/US: United States of America
16. ACCA: The Association of Chartered Certified Accountants
17. ILO: International Labour Organization
18. UN: United Nations Organization
19. TIVETs: Technical Industrial Vocational Educational Training Institutes
20. SDGs: Sustainable Development Goals
21. MDGs: Millennium Development Goals
22. MDA's: Ministries, Departments and government Agencies.

CHAPTER ONE: INTRODUCTION

1.0 Introduction to the topic

The importance of adequate and affordable housing cannot be gainsaid as it forms part of the central pre-occupations for all classes of people globally. The public sector has in most circumstances been charged, rightfully, with the responsibility of providing basic services including housing to its citizens. In the process of undertaking this responsibility, governments have faced many constraints, making it impossible to adequately fulfil their obligations for goods and service delivery. The public sector delivery of housing to low-income urban households has specifically posed many challenges for governments all over the world. The Kenyan government has addressed shelter issues through various initiatives since 1963 with mixed results and varying degrees of success. The key intervention by the government was the formulation of sessional paper no. 5 on Housing Policy (1966/67), developed when annual housing demand was 7,600 and 38,000 units in urban and rural areas respectively. It highlighted the need for the government to provide adequate and cheap housing to the citizenry in a healthy environment. The policy focused on slum clearance in urban areas, enhanced resource mobilization for accelerated housing development, housing development through self-aid, and application of the cooperative model for housing construction. It also dwelt on the need for effective coordination in housing development and construction projects (Republic of Kenya, 2004). This policy did not fully meet its objectives, hence the challenge of housing continued unabated.

The United Nations (1965) report on the housing situation in Kenya led to the establishment of the Housing Research and Development Unit (HRDU) in 1967, domiciled at the University of Nairobi. The purpose was for the unit to conduct multi-disciplinary research on various aspects of housing and community planning for human settlements in rural and urban areas. This led to increased uptake of local materials and technologies in housing construction, including the Appropriate Building Materials and Technologies (ABTMs) championed by the State Department for Housing. At the same time, the Housing Finance Company of Kenya (HFCK) was founded to promote uptake of mortgages and other housing finance options for citizens and funded many housing estates within the country. The HFCK is 60% owned by Commercial Development Corporation and 40% by the Government of Kenya. Alongside NHC, they pioneered the utilization of site and service schemes popular in the 1970s for housing development. Through the NHC, over 10,000 housing units have been developed through such

schemes. In 1979, the National Cooperative Housing Union (NACHU) was launched to promote the development of housing cooperatives in the country, presently over 120 primary housing cooperatives have been formed (UN Habitat, 2011; Ogutu, 1978).

At the international level government efforts were supported up to the year 2000 by the Global Strategy for Shelter, which called for nations to put more effort into providing housing for their citizens living in poor housing conditions (UN Habitat, 1990). The Kenyan government pursued housing development through the five year – national development plans, enactment of sessional paper no. 3 of 2004 on National Housing Policy for Kenya, which was aimed at consolidating housing development strategies, including more partnerships. In 2007, it developed the Market re-engineering measures, aimed at attracting more private investors to the housing sector, because the sector did not attract considerable support from such players. Prevailing conditions made housing for low-income groups unattractive and unbankable to developers (Republic of Kenya, 2007). The need for the engagement of the private sector in housing delivery is borne out of the realization that the public sector does not have adequate resources to address growing housing demands, occasioned by the growing population and poverty levels. A paradigm shift has been proposed for more engagement of public and private sector in a collaborative manner, through a variety of models, to develop housing for low-income urban households. One method that has gained traction among developers and policymakers is the concept of Public Private Partnerships (PPPs) as proposed by Finlayson (2002).

Chapter one deals with the following aspects of the study: background; motivation; problem statement; research objectives; research questions; significance; scope; basic assumptions; limitations; definitions of the concepts and organization.

1.1 Background of the study

Housing has been identified as one of the three foremost basic human needs, coming just after food and clothing. Adequate provision of housing is necessary for the physical survival of mankind. The ease with which people access it indicates their stage in the social ladder and is a measure of their living standards (Nnanjar, 2017; Jiboye, 2009). Housing access is central to the realization of human dignity along with other human rights, as it addresses deep-seated psychological desires for privacy, enhanced security, and protection from adverse conditions of weather (Nnanjar, 2017; Salama & Sengupta and Lin, 2011). According to the State Department

for Housing (2017), the accumulated housing demand in Kenya is over 2 million units, and to close this gap, an annual supply of 250,000 housing units per year is required, but only 50,000 units are produced p.a. this shortage of housing is more acute in low-income urban households in Sub Saharan Africa (SSA), Kenya included. Inadequate housing supply has ramifications for cohesion and social stability in a country, hence the growing need for sustainable ways of financing housing development, especially for the urban poor (Taiwo et al, 2016; Olotuah and Bobadoye, 2009; UN Habitat, 2001; Tipple, 1994; Achinine, 1993).

The need to provide adequate housing has been heightened by the increasing rate of urbanization globally, which puts much strain on the available infrastructure. Housing supply is a major concern for modern states because close to 1 billion people globally live in inadequate shelter conditions, and over one hundred million persons are homeless (UN Factsheet, 1996). The rapid pace of urbanization brings about increased demand for housing supply against dwindling resources and capacities, which poses a major challenge for urban housing efforts (Nnanjar, 2017; Salama & Sengupta and Lin, 2011). The Kenyan population stands at 47.6 million as per the 2019 Housing and Population census, of which 13.2 million or 27.8% is urbanized, hence an urbanization rate of 4.4%, above the global average of 2.1%. It is projected that by 2050, more than half of the population will be living in urban areas, presenting the twin issue of high economic prospects and exerting more pressure for the provision of adequate services including affordable housing. Currently, it has been estimated that 61% of the population lives in slums and informal settlements where infrastructure and tenure options are deficient hence authorities have been exploring various ways of addressing this state of affairs (Republic of Kenya, 2019; World Bank, 2017). Globally, 689 million people lived in slums in 1990, which increased to 881 million (28%) in 2014, while at the same time, Sub Saharan Africa had 93 million slum dwellers which increased to 200 million (115% increase) respectively. This means that one billion housing units are required globally by the year 2025, which will cost US\$ 11 trillion (Republic of Kenya, 2018; UN Habitat, 2016; Republic of Kenya, 2009).

Provision of affordable housing is gradually taking the central place in the national and international realms, such that it has been included in national development plans and agenda. Many countries have express provisions for housing provision as part of the bill of rights in their constitutions, though they have faced numerous challenges towards this end because of:

inadequate finances, serviced land, inability to leverage diverse classes of assets such as land for housing delivery, and other constraints associated with public sector operations. This has led to the realization that the public sector cannot be wholly trusted to deliver the required housing developments, whether rental or owner-occupier, which has severely disadvantaged low-income urban households. It has prompted a re-think of how the same can be provided (Kutana, 2017; Sheko et al., 2015; Khakhi, 2009; Brown et al., 2006). Stakeholders have been pre-occupied with sourcing alternative strategies of funding housing development beyond the public sector led programmes, which will also improve the quality of existing housing stock, while reducing construction costs and housing delivery periods. It has since been accepted that such milestones can only be achieved through the enhanced role of the private sector in the development of down-market urban housing (Mohamed, 2017; Gopalan and Venkatarama, 2015; Muhammad and Ado, 2014; Brockerhoff, 2000; Pessoa, et al., 1998).

Engagement of the private entities in public development discourse, including housing is not new because, since time immemorial, the public sector has contracted private parties to construct, operate, and maintain such infrastructure. Under such arrangements, the public sector finances the construction, while the private sector undertakes the actual construction and associated project activities. Increased participation of the private sector in housing delivery is justified by the fact that investments for housing by countries is grossly underfunded, with only 2 to 8% of Gross National Product (GNP) allocated to its development, and 5 -10% of GDP on the flow of housing services. This is despite the importance of housing in the performance of the economy. Although China and India spend 6% and 4% of their GDP on housing development, they have made various initiatives for the enhanced role of the private sector to supplement government efforts (ADB, 2004; India Planning Commission Report, 2002; Mayo and Shlomo, 1993). PPPs have, therefore, been proposed as among the possible alternatives to the development of down-market urban housing because market forces have failed to provide lasting solutions to complement public sector efforts. The private sector is profit-driven while the public sector has financial constraints as a result of its inability to raise enough long term financing options, lack adequate technologies, and ineffectiveness in the application of subsidies and other support measures to spur housing development. Housing infrastructure, which has the effect of lowering costs associated with housing development, is poorly developed and underfunded (World Bank, 2017).

1.2 Motivation for the study

The desire to study the concept and applicability of PPPs in the provision of housing and related infrastructure dawned on the researcher while working as a Housing Officer in the State Department for Housing and Urban Development, since 2009. At the time, the Department was implementing various housing infrastructure projects which included the upgrading of access roads to bitumen standards, high mast security lighting, water and sewer pipelines, and markets in dense urban settlements. There were many requests from local authorities for financing these housing infrastructures but the budgetary allocations were not enough to satisfy demand. It had been estimated that addressing such requirements required 6 billion Kenya Shillings per year, but only an average of 800 million was allocated annually. This limitation in budgetary allocation affected the number of housing infrastructure which would be installed, despite the maxim that such infrastructure would open up land for housing development by private players. This was exemplified by the fact that private developers constructed housing estates along all areas where the department provided infrastructure such as murram roads and trunk sewer lines, for example, the Lukenya - Daystar university infrastructure. The available funding was utilized in the construction of infrastructure in few areas including Mavoko, Joska, Mombasa, Eldoret and Thika. The impacts of these investments were huge including the growth of settlements, population and associated developments.

In order to encourage more investments in housing infrastructure beyond the annual budget cycles, the researcher consulted Mr. Moses Gatana (Director Housing). He agreed with the researcher that the utilization of PPPs to bridge the financing gap for such critical housing infrastructure was necessary to spur housing developments in urban areas in Kenya. The challenge that was faced after this consensus was that the ministry did not have a framework for such an arrangement or where laws existed, they did not allow for the express application of PPPs in sectors like housing. The failure to apply PPPs was based on the fact that social sectors like housing did not attract the required investments due to low returns for the capital utilized in the process as compared to high returns in sectors like energy, water and transport infrastructure. This prompted the researcher to come up with proposals for consideration in accelerating the application of PPPs, including the need for training from the PPP Unit, which was not forthcoming because of the capacity levels at the unit at the time. This was the motivation for the researcher to undertake a research entitled “The effectiveness of using PPPs to ensure housing

delivery: A case for Nairobi Metropolitan region” when admitted for a Post Graduate Diploma in Housing Administration at the University of Nairobi in 2012. The researcher discovered that PPPs have been used for financing infrastructure including housing all over the world and for a long time because it brings: increased financing, innovation, efficiency, and adequate market approaches in developing infrastructure. At the master’s level, the researcher researched “PPPs as a vehicle for urban low-cost housing provision: A Delphi study of the business environment in Kenya”, which deepened the understanding of PPPs. The researcher then formed a conviction that PPPs, when structured in the right way and where the interests of the parties engaged are aligned properly, are vital in the design, financing, construction and implementation of infrastructure projects.

This research work on “The applicability of PPPs in down-market urban housing in Kenya” therefore builds upon the discoveries made from postgraduate levels to the doctorate level, in which the applicable theoretical and institutional arrangements have been established alongside consensus building through the Delphi methodology. The researcher has established the: significance of PPPs in the provision of down-market urban housing in Kenya; the role of the private sector in supplementing government efforts in infrastructure financing and development; benefits and opportunities to public sector and private entities for using PPPs; challenges and their mitigation; the existing legal and regulatory environment for PPPs application in Kenya. The role of government in promoting the applicability of PPPs has also been established because the public sector cannot completely remove itself from infrastructure provision, especially for the urban poor. The government should, therefore, play the role of an enabler, facilitator and regulator, in addition to setting standards, ensuring compliance with the set performance indicators, and monitoring and evaluating the progress towards a decently housed nation.

1.3 Problem statement

The supply of adequate and affordable housing to Kenyans is embodied in the constitution under article 43 1 (b) (Republic of Kenya, 2010). However, this has been a challenge for the government, particularly the provision of down-market urban housing for low-income urban households whose income streams cannot support adequate access to housing units available based on the prevailing market forces. Low-income urban households have challenges accessing appropriate housing, food, clothing, healthcare and transport facilities. This forces them to seek accommodation in unregulated and unplanned settlements, highlighted by the growing number of

slums and informal settlements (Ojwang', 2015; Auko, 2012; Mungai, 2011; Tibaijuka, 2010; Omenya, 2006). Increased rate of urbanization, high population growth rates, high poverty levels, and high costs of housing financing and development have exacerbated housing supply challenges. In 1995, the global urban population stood at 2.6 billion people (45% of the population), which then rose to 3.9 billion in 2014 (54%). It has further been shown that in 2010, 980 million people lacked decent housing at the international level, and it is projected that this will grow to 1.6 billion households by 2030, therefore, more than 600 million people will be exposed to situations of inadequate access to housing in the next twenty years (Republic of Kenya, 2018; UN Habitat, 2016; Republic of Kenya, 2009).

The challenges facing housing delivery have forced many countries including Kenya to seek new ways of bridging demand gaps, with one option being increased collaboration with the private sector through diverse strategies such as privatization, liberalization and application of PPPs. This is because PPPs bring greater value for money compared to the traditional procurement methods (Sanda et al., 2017). Despite the established importance for the application of PPPs, the State Department for Housing and Urban Development has attempted to use PPPs in housing delivery with minimal success. For example, it invited interested bidders under the PPP framework for the development of housing in the Nairobi city estates of Ngara, Park Road and Starehe in 2014 and by 2016, the idea of using PPPs had been abandoned. Some of the reasons cited for this failure were that the private investors did not clearly understand the model, there was a likelihood of occurrence of many risks, and that the methodology of recouping their investments was uncertain since the uptake was to be done through civil servants whose incomes are moderate. Other reasons given were that the applicable housing access and development incentives were ineffective despite the commitment to offer government land for housing development, and the proposed sites lacked adequate housing infrastructure. This study sought to come up with solutions to enable stakeholders to effectively apply PPPs in low-income urban housing. This is because PPP arrangements operationalize efficiency, risk transfer, innovation, addition finance, technology and more returns to investors (Bayliss and Waeyenberge, 2017).

Application of PPPs has been actively explored, in and outside Kenya, for enhanced involvement of the private sector in developing housing and related infrastructure because it activates effective partnerships between the government and private sector, and non-profit organizations in

service delivery. PPPs incorporate innovative models for housing development beyond the traditional ways, and proponents have pointed out that they can succeed in increasing the quality and quantity of rental and homeownership. This is because they have seven major inbuilt attributes which include: formulating well-structured partnerships; undertaking projects with complementary goals and objectives; active application of innovative funding and tenure maximization mechanisms; assets maximization and leveraging of the investments by parties; utilization of strengths of partners; adequate risk identification, costing, allocation; application of rewards. These attributes can be used for delivering required housing units as per standards and specifications. Under PPPs, the public sector uses its revenue base and the private party leverages its ability to mobilize capital and resources to achieve pre-determined common goals for housing delivery (Mohamed, 2017; Rondinelli, Kalarickal, 2005; 2003; Buckley).

Many African countries including Kenya, have used PPPs in accelerating infrastructural development, but have faced many challenges, including mixed results in its application in housing development. These success rates are dictated by the social-economic-political and cultural circumstances existing in these countries (Sanda et al., 2017; Al-Shareem et al., 2004). This state of affairs has been largely because some of these countries have used PPPs for only a few years, hence they are in the first phases of the maturity curve in the application of the concept. These countries also have weak legal, regulatory and institutional frameworks for effective application of PPPs. Such frameworks are essential for availing the necessary capacity, financing and private sector mobilization strategies for housing and related infrastructure development (Ojwang', 2015; Republic of Kenya, 2014; Edggers and Startup, 2006).

Under the Big Four Agenda (2017-2022), Kenya has prioritized the provision of 500,000 affordable and social housing units, through the active involvement of private players, of which application of PPPs among other approaches has been prioritized (Kutana, 2017; Witboi, 2015; Dube, 2013; UN Habitat, 2011; Mathonsi, 2012; Kung'u, 2009). This is a further restatement of the aspirations under Kenya Vision 2030, where the target has been to deliver 200,000 housing units p.a. through a mixture of initiatives, among them the application of PPPs. The overreliance on public sector financing for housing development has led to its underdevelopment because of low investment levels. For example, between 2009 and 2012, the government only allocated 4.5 billion Kenya Shillings, which could develop only 3000 housing units, out of the annual target of

250,000 housing units. Under the Medium Term Plans of 2013 to 2017, only 6,667 units were developed (Republic of Kenya, 2018; AfDB, 2014; Republic of Kenya, 2013; 2012; 2007). This state of affairs can only be reversed through the enhanced role of the private sector in the development of down-market urban housing and related infrastructure. This is borrowed from the World Bank's enabling markets to work strategy of 1993, which is built on the understanding that increased engagement of the private sector will unlock existing bottlenecks which face government-led housing development approaches (Kutana, 2017; Kung'u, 2009; World Bank, 1993).

Despite the statement of intent to increase the application of PPPs, the concept has not been successful to the levels expected in terms of increasing the rate of housing supply. This is despite the model being recommended as a viable option for bringing the public and private sectors together to define development outcomes. Application of the PPPs concept in housing development has been supported because it will increase instances of superior management skills, application of best practices, expertise, capital mobilization, and technology resulting in the production of high-quality housing units in large quantities for rental and homeownership. It introduces the efficiency and effectiveness in resource utilization by the private sector in housing delivery processes. It enables the public sector to leverage its assets and resources to stretch them to underinvested areas of the economy (UN Habitat, 2016; Guido and Sachs, 2015; Deborah, 2006; Awortwi, 2004; Gentry and Fernandez, 1999).

PPPs have had a long tradition of application in many countries and sectors as shown by studies such as Woetzel et al., (2016), but have had limited application in down-market urban housing, especially in Kenya. This is because of the prevailing economic, political, and legal environments, as well as cultural and institutional arrangements, which have hindered the effective application of PPPs. Effective application of PPPs requires adequate structuring and planning to balance and align the interests of all parties. Kenya has attempted the application of PPPs in the development of low-income urban housing since 2013 with little success, despite the success of the model in other sectors of the economy and other countries as shown by different studies. This study sought to evaluate the applicability of PPPs in down-market urban housing because low-income urban households are the most vulnerable from underdevelopment of housing by stakeholders (Urmi, 2005; Jones and Ward, 1994; Islam, 1996).

1.4 Objectives

Main Research Objective:

To evaluate the applicability of PPPs in down-market urban housing in Kenya

Research Sub Objectives:

- i) To evaluate the frameworks for the application of PPPs in down-market urban housing in Kenya;
- ii) To determine challenges facing the applicability of PPPs in down-market urban housing in Kenya;
- iii) To outline the opportunities, the PPP mode of procurement offers in the development of down-market urban housing in Kenya.

1.5 Research questions

Main Research question

Are PPPs applicable in down-market urban housing in Kenya?

Research Sub questions

- i) Which frameworks exist for the application of PPPs in down-market urban housing in Kenya?
- ii) What are the challenges facing the application of PPPs in down-market urban housing in Kenya?
- iii) What opportunities does the PPP mode of procurement offer in the development of down-market urban housing in Kenya?

1.6 Significance of the study

This thesis explored the applicability of PPPs in down-market urban housing to make Kenya comply with international and national commitment to housing provision. This is because the government alone cannot meet the huge demand for housing supply especially for low-income urban households, who are economically disadvantaged. The study has demonstrated that the private sector can deliver housing with the right enabling environment and application of the right incentives, by the public sector. This addresses the constantly increasing challenge of

housing. There are advantages and disadvantages of applying PPPs in housing development, and such challenges must be addressed to make the model applicable.

The first significance of the study was in gauging the applicability of PPPs in down-market urban housing in Kenya. The second significance of the study was that it highlighted key findings on why PPPs are applicable. This will guide governments in implementing workable partnerships for the delivery of urban down-market housing as this has not been fully addressed, and in turn, make urban areas more livable. The study advanced the academic knowledge on the applicability of PPPs for down-market urban housing, by bridging the gap between academia and policymakers. This will make it possible to address the enduring challenge for governments in housing development, and highlight the need to use PPPs in housing development.

1.7 Scope of the study

The Geographical scope of the study was Nairobi City, the capital city of the Republic of Kenya, and the largest conurbation in East and Central Africa in terms of its contribution to the economy of the region. The design of the research is such that the findings may be applied to the rest of Kenya, East Africa, Africa and the world. The study focused on the predictions on the applicability of PPPs in down-market urban housing in Kenya, using the Delphi method of forecasting. The choice of Delphi methodology was based on the fact that the application of PPPs in down-market urban housing is a new concept, which has not been fully explored. The scope of the study was confined to: Housing Practitioners (defined as officers of the national and county government of Nairobi employed in the Housing and urban development, who are in charge of housing and urban development policies, including housing development promotion); Housing Developers (defined as a selected number of contractors and developers involved in the growth of housing as a product in the county, and whose list was obtained from the Kenya Property Developers Association, KPDA); Housing Financiers (defined as a group of banks and financial institutions involved in financing housing construction and development within Nairobi city, whose list was obtained from the Kenya Bankers Sacco).

Theoretically, the study adopted the Principal Agency Theory (PAT) which explains the rationale through which the Principal (government) delegates its functions of providing housing to the Agent (private developers) through well-defined contractual undertakings. PAT dwells on the incentive structures that can be put in place to make the agent undertake such state functions

by aligning the interests of parties to the PPP contract, appropriate risk identification, costing, and apportionment to the party best suited to handle such risks. PAT theory is supported by theories such as the neoliberal theory, which advocates for governments to play the role of enabler and facilitator to housing development. In addition, PAT is supported by contract theory, which holds that PPPs should be taken as special contracts, such that the private sector can apply its expertise, know-how, technology, innovation, flexibility, efficiency, and effectiveness in delivering down-market urban housing.

1.8 Basic assumptions of the study

The researcher assumed that all the respondents would be willing to participate throughout the Delphi process, and give honest and accurate answers as a result of the three iterations, hence a back and forth statement of answers. This was critical in drawing accurate and predictable predictions and forecasting on the application of PPPs in down-market urban housing in Kenya. The study assumed that the current enabling legislation and environment on the applicability of PPPs would be extended to the development of down-market urban housing, hence making it possible to address the prevailing low-income urban housing supply deficit in Kenya.

The study assumed that the application of PPPs in down-market urban housing will receive the necessary political, economic, social, technological, environmental and legal support from stakeholders in the country for its realization. The study assumes that the rapid urbanization in Kenya will compel actors to support the application of PPPs. Towards this end, it is expected that counties will include the application of PPPs for down-market urban housing in their County Integrated Development Plans (CIDPs). It was assumed that the National government under the PPP unit will provide more technical advice to contracting authorities for the development of down-market urban housing. It is assumed that the challenges facing PPPs application in housing will be addressed by stakeholders to make it more appropriate in the sector.

The main variables which were tested qualitatively in the study were as follows: first, the challenges likely to hinder the application of PPPs in down-market urban housing as these must be addressed to make it applicable; second, the role of government in promoting the applicability of PPPs in the housing sector by creating the enabling environment; third, the frameworks for PPPs application which must be developed; fourth, the opportunities that the PPP model of procurement offers in developing the required housing since these inherent opportunities will

incentivize the private sector to increase their participation. Although the country has the necessary legal, regulatory and institutional arrangements for effective application of PPPs in down-market urban housing, the existing bottlenecks on the same can be improved.

This study proposes that deliberate attempts must be made to reduce the risky nature of down-market urban housing, through adequate public sector facilitation through the application of various targeted incentives, subsidies and land banking for housing development. There must be enhanced legal and regulatory frameworks review and harmonization, including reviewing the PPP Act, 2013, to incentivize the private sector and attract them to the application of PPPs in housing and associated housing infrastructure, which reduces the cost of housing developments. Stakeholders must be committed to addressing various challenges to the application of PPPs through capacity building, training and innovative financing models. All these will make PPPs applicable in meeting the housing demands for low-income urban households.

1.9 Limitation of the study

The first limitation was time because a thorough study on the applicability of PPPs in down-market urban housing requires substantial time to interview and get opinions of many stakeholders, including those who have been involved in the actual PPP process. Some of the stakeholders, who may be the best case studies are found outside Kenya and as such, may require detailed logistics and time to get their experiences and lessons learnt. Time may be limited to consolidate and analyse all the overwhelming evidence on private participation in infrastructure development since the human civilizations started to emerge. A lot of time might be required to document all the PPPs that have been used since that time, and such evidence might be in forms not easily discernible. This research relied on locally available resources within its timeframe.

The second limitation was inadequate resources required to access the latest publications on PPPs because international research organizations publish and sell such documents at high prices and the same might also not be available free online or in local bookshops. This scenario denied the study valuable publications on PPPs application limiting the ability to get detailed challenges and opportunities to broaden the inquiry into the applicability of PPPs. Countries such as Canada, USA, UK, Netherlands, India, and China among others have used PPPs for many years and it would have been beneficial if the research benefitted from such experiences through a

physical study of how it works there, and how they address financing challenges of PPPs. However, such real-life success cases could not be studied due to financial limitations.

The third limitation was limited local research on PPPs for urban housing provision, which led to limited literature on the applicability of the concept in down-market urban housing. This is because PPPs require a mix of government regulations, the creation of enabling frameworks touching on laws, incentives, financial reforms, utilization of cooperative principles, and targeted government subsidies. The limited research on the application of PPPs in down-market urban housing narrowed the range of data analysis and resultant research findings, conclusions and recommendations.

The fourth limitation was the use of Delphi methodology in data collection because it utilizes experts in a given area of inquiry, and PPPs experts are not locally available, especially for down-market urban housing. The strict term of “experts” used in the study was varied to imply anyone with an idea on housing provision and delivery strategies, among them the application of PPPs. The iterative approaches of PPPs made some of the respondents pull off the process, hence the researcher used innovative methods to keep others in the process through the use of telephone calls and emails.

1.10 Definition of concepts used in the study

Public Private Partnerships have been defined as contractual obligations, where a public function is assigned to a private sector player through well-defined legal contractual engagements, which is accompanied by adequate risk identification, costing and apportioning. It should be structured such that the interests of parties are aligned, and where the private party assumes substantial financial, technical and operational risks in developing rental and home ownership options. It has been defined to imply all efforts made at developing down-market urban options through cooperatives and privately organized groups who may seek assistance from the public sector to develop housing for rental or for owner-occupier. It could mean instances where such groups get financing for housing infrastructure which creates an enabling environment for the actual construction of housing units for rental or sale.

Public Private Partnership Agreement has been defined as a contract concluded between the contracting authority (public sector) and a project company (Special Purpose Vehicle, SPV), under which the project company is entrusted to undertake a down-market urban housing project.

The SPV does this by raising the necessary financing, construction, operation and maintenance of the housing stock.

Contracting Authority, has been defined as the state department, agency, corporation or county government department, which intends to have its function like the development of down-market housing or related infrastructure undertaken or performed by a private party.

Private Party has been defined as an entity that enters into an agreement with a public agency (contracting authority), for the development of down-market urban housing for rental or homeownership. In such an arrangement, the private party is responsible for undertaking the project on behalf of the contracting authority. The private party implied herein could include: organized groups like cooperatives, resident association or other groups which partner with the government to provide housing or housing infrastructure. These groups are expected to provide land, sweat equity, capital, construction materials, and other contributions to make it a success.

Public sector has been defined as an organization which has some element of government, hence called public entities, national and county governments, parastatals, corporations or other Ministries, Departments and Agencies (MDAs) of the national or county governments, which perform public functions.

Project has been defined as all aspects of development including: design, finance, construction, development or operation of new down-market urban housing units and associated infrastructure, assets and facilities. It could include rehabilitation, modernization, expansion, operation, maintenance, or management of existing housing stock.

Housing has been defined as the process of providing shelter to low-income urban households through rental and owner-occupier schemes, as well as the installation of off-site and on-site infrastructure which reduces the final rental or home purchase costs.

Down-market Urban Housing has been defined housing that is available for rent, owner occupier, outright purchase or incremental process to persons earning between Kenya Shillings 20,000 to 49,999 a month, who are defined as low income earners.

Traditional Procurement methods has been defined as the normal and common methods of awarding partial contracts to several contractors to undertake construction, operation and

maintenance in a piecemeal manner, as opposed to the PPP procurement where project activities are bundled and awarded to a single contractor or consortium.

Ministry of Transport, Infrastructure, Housing and Urban Development has been defined as the Ministry responsible for housing matters, through the State Department for Housing and Urban development.

Delphi technique has been defined as the forecasting technique which systematically combines experts' opinions in a given subject matter through a rigorous process of iterations (research rounds), before making conclusions on the area of inquiry.

1.11 Organization of the study

The study is covered in five chapters

Chapter One: This section deals with the background of the study; the motivation for the study; problem statement; research objectives; research questions; significance of the study; scope of the study; basic assumptions of the study; limitations of the study; definitions of the concepts used in the study and organization of the study.

Chapter Two: It includes the introduction of the literature review; housing delivery strategies; definitions of PPPs; meaning of PPPs; evolution of PPPs and its applicability in down-market urban housing; why PPPs are preferred; applications of PPPs in general; the rationale for the private sector participation in housing delivery through PPPs; applicability of PPPs in down-market urban housing in Kenya; models of PPP application in down-market urban housing; operationalization of project company-SPV; success factors for PPPs in down-market urban housing; the status of PPPs application in Kenya (PESTEL analysis); conclusions on circumstances for PPPs applicability in down-market urban housing in Kenya; opportunities offered by the PPP mode of procurement to the public and private sectors; challenges in the application of PPPs in down-market urban housing; theoretical frameworks for PPPs application in Kenya; the selected theoretical framework for the study and the conceptual framework.

Chapter Three: It includes an introduction; research methodologies; introduction to forecasting methods; the Delphi method of forecasting; strengths of the Delphi method of inquiry; the weaknesses of Delphi techniques; rationale for use of Delphi method of forecasting; Research design; reliability and validity of Delphi method; sampling frame; data collection procedures;

data processing and analysis; data presentation; indicators for applicability of PPPs used in the study and ethical considerations in Delphi methods of research.

Chapter Four: It deals with introduction; brief discussion and analysis of Delphi round one; brief discussion and analysis of Delphi round two; final and third round Delphi discussion and analysis; and the proposed model of operationalizing the application of PPPs in down-market urban housing in Kenya.

Chapter five: It deals with introduction; summary of the findings; conclusions; recommendations for practice and policy; Recommendations for academics; contributions of the study; and areas of further research.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

The hierarchy of needs theory developed by Abraham Maslow ranks housing among the physiological needs of food and clothing; which is why societies put a lot of effort into its supply (Maslow, 1943). Housing provision impacts on the physical and mental wellbeing of individuals, as well as affecting the overall productivity of society. It is because of such importance therefore, that its adequate supply must be explored for all classes of people, including low-income urban households (Chege, 2017; Muhammad and Ado, 2014; Akelola, 2013; Car, 1995).

Kenya is party to many international treaties, conventions and protocols, which advocate for sustainable housing development and financing. At the foremost, article 25 of the Universal Declaration of Human Rights (1948) observes that all people have a right to standards of living which enhance their well-being and safety, including the right to adequate housing and social services. Secondly, article 11 (1) of the International Covenant on Economic, Social and Cultural Rights (1966) obligates state parties to observe and implement rights of citizens to adequate standards of living, including the right to adequate housing in clean and healthy environments. Thirdly, convention number 102 of the International Labour Organization (ILO) of 2002 states that “the primary objective of any government is to ensure that all of its people own or have access to decent, safe and sanitary housing in a healthy and befitting environment”. These treaties have necessitated more than 100 countries to formally recognize the right to adequate housing in their constitutions, including Kenya and Nigeria (UN HABITAT III, 2016).

The globally accepted Sustainable Development Goals (SDGs), number 11 mandates member countries to make cities and human settlements inclusive, safe, resilient and sustainable. It compels countries to ensure access to adequate, safe and affordable housing, which includes the greater call for concerted efforts in sustainable provision of housing infrastructure, slum and informal settlements upgrading. These enormous tasks can only be undertaken through multi-stakeholders’ collaborations because of the agreed timelines, the year 2030 (UN, 2015). The SDGs are further strengthened by the provisions of the New Urban Agenda (NUA), which provides adequate guidelines for sustainable urbanization. It commits countries to develop inclusive, safe, resilient and sustainable human settlements under their purview (UN Habitat, 2017).

This section deals with: housing delivery strategies; definitions of PPPs; meanings of PPPs; the evolution of PPPs and its applicability in down-market urban housing; why PPPs are preferred; the rationale for private sector participation in housing delivery through PPPs; application of PPPs in general; applicability of PPPs in down-market urban housing in Kenya; models of PPPs application in down-market urban housing; success factors for PPPs in down-market urban housing; status of PPPs application in Kenya (PESTEL Analysis); conclusion on the circumstances for PPPs applicability for down-market urban housing in Kenya; opportunities offered by the PPPs mode of procurement; challenges in the application of PPPs in down-market urban housing; theoretical frameworks and the selected theoretical framework for the study; the conceptual framework.

2.1 Housing delivery strategies

The need for affordable housing, despite the prevailing budgetary deficits, necessitated governments to scout for alternative methods for its effective delivery. Governments have attempted to apply various housing development options for a long time, some of which were driven by the need for the application of appropriate tax incentives and guarantees. An example of such options was the enactment of the Low-income Housing Tax Credit Programme (LIHTC) in the US, through the amendment of the Federal Tax Code in 1986 (Katherine and Quigley, 2000; Stoutland, 1999; Keating, Krumholz and Star, 1996; Urban Institute, 1995; US state department of Housing and Urban Development, 1995). This was eventually followed by the Capital Fund Financing programme (CFFP) for the maintenance and rehabilitation of public housing stock in the country (Katherine and Quigley, 2000; Stoutland, 1999). In Europe, France started the development of massive housing programmes after the Second World War, due to the unresponsive housing policies which existed before. The change of housing policy resulted in diverse ways of housing delivery, for example the implementation of the housing allowances or subsidies from 1977. These incentives saw an increased development rate of housing, such that by 2006, housing contributed to 1.75% of GDP, and homeownership rose to 57%, of which 21% comprised of private rentals and 17% social housing or equivalent of 4 million housing units (Ira and Claude, n.d).

Three major methods have been used in housing provision. The first one is through private commercial and banking institutions, where beneficiaries must have adequate income for loan repayments, and collateral for the same. These conditions lock away many people from

accessing housing financing; because the poor are assumed to be highly risky individuals for whom housing provision has low profitability margins. The urban poor are also faced with high mortgage fluctuations rates and interest rates, which makes it almost impossible for them to rely on such credit facilities for house development or access. This means that they do not have access to long term housing financing and innovative strategies for their housing development. In addition, it has been showed that the uptake of mortgage, debts, debentures, equity financing and contractor financing in housing development increases debt burdens for such low income urban households. This imperils the ability of low-income urban households to acquire other necessities of life. On the other hand, rental options, which are popular with such groups of people, have been slowed down by low profitability as a result of government controls and price ceilings (Wapwera et al., 2011; Agbola et al., 2007; Adenji, 2004; Ira, and Claude, n.d). Developed counties like USA, UK, Japan, South Korea and Singapore have well-established housing financing systems. Some of these strategies have been attempted in developing countries with mixed results because of inappropriate application of innovations, technology, and mismanagement of public funds, including subsidies for low income urban households (Ezimuo et al., 2014; Omuojine, 1993).

The second source of housing supply is the public sector, especially housing for low-income groups and public housing schemes. Such schemes have had mixed results and most of them do not reach the poor and the target groups in developing countries. This is because they are riddled with corruption, lack of political goodwill, and failure to appreciate the socio-economic circumstances for households in project design. Some countries have utilized the concept of low-income credits for increased housing development and access for low income urban households with varying successes. Others have executed site and service schemes, new housing constructions, microcredits for housing development and provision of infrastructure and basic services. This has seen some improvements and increase of the housing stock, but still it has not fully addressed the ever growing demand for adequate housing (Stein and Castillo, 2005; PM Global Infrastructure Inc., 2003; Centre for Urban Development Studies, 2001). Public housing schemes decreased from the 1960s due to the emerging theoretical and economic thinking adopted at the time. In cases where the schemes were developed, the units were poorly maintained, dilapidated and in some cases, they alienated residents from the broader community,

with some becoming centres of crimes and violence (Wapwera et al., 2011; Agbola et al., 2007; Adenji, 2004).

The third source of housing development is the informal financing sources (savings, informal loans, remittances from diaspora and sale of assets). Formal housing financing options are unavailable to 80-90% of households in developing countries, hence the increased reliance on the same for housing development and access to such groups. These housing financing strategies have been emboldened by the emergence of non-traditional financing agencies that have introduced more innovative ways of housing. This has attracted many low income urban households to such housing delivery methods, which seem flexible and which have not been adequately regulated in some countries (Wapwera et al., 2011; Mukhija, 2004). The success of the informal housing development strategies has been a wakeup call that: low-income urban housing can be provided using affordable and economically viable methods consistent with tested financial methods. Through the informal housing development strategies, it has been found out that low-income urban households are dutiful in their repayment of loans for housing development throughout the world (Stein and Castillo, 2005; PM Global Infrastructure Inc., 2003; Centre for Urban Development Studies, 2001). It has also been established that low income urban households have embraced the informal housing development and acquisition methods like self-help groups, chamas and cooperatives because they have been locked out of formal housing finance options. Many have resorted to incremental housing routes which might lead to development of substandard housing (Wapwera et al., 2011; Denis, 2011; Wa'el et al., 2011; Agbola et al., 2007; Finkel, 2005; Mukhija, 2004).

The major lesson learnt so far in housing development is that provision of down-market urban housing requires operationalization of adequate housing policies, legal and regulatory environments, and integration and participation of multiple actors to develop and utilize holistic approaches in its development. In addition, there is need to maximize the power of subsidies and incentives, application of revolving housing development funds, and institutionalizing effective ways of channelling funds for public housing. This should be supported by developing adequate capacities and institutions to advance the agenda of low-income urban housing provision where it needed (Stein and Castillo, 2005; PM Global Infrastructure Inc., 2003; Centre for Urban Development Studies, 2001). Another lessons is that the availability of housing infrastructure

reduces the cost of housing development, while the existence of strong housing financing options, grants, loans, private equity, and developed informal housing strategies are effective in sustaining the development of affordable housing. As a result of failures to develop down-market urban housing by both public and private players for a long time, stakeholders have proposed close working relationship between public and private entities through PPPs (Lawson et al., 2010).

2.2 Definitions of PPPs

There are many and diverse definitions of PPPs which have been advanced since the emergence of the concept. The first definition by the United Nations and the World Economic Forum defines the conception as voluntary and collaborative relationships which are undertaken between a wide array of public and private parties. This means the term can assume many forms depending on levels of collaboration. These relationships are governed by mutual agreements, which defines the modalities of working together to achieve commonly agreed tasks. Under such arrangement, risks, responsibilities, functions, resources, rewards and benefits are identified and shared as per the capabilities of partners. This definition has been adopted for PPPs in Singapore by the Asian Development Bank (ADB). The contract is long term in nature or long lasting than is the case with traditional procurement methods, which are awarded in piecemeal. In this relationship, the government focuses on the most cost-effective ways of delivering high-quality services, while the private party deals with innovative design, finance, operation, and maintenance of the facilities. The public sector establishes frameworks for engaging the private players by reviewing its laws and institutional capacities, while aligning them to the needs of citizens, including housing delivery. PPPs are defined by instances where two or more parties resolve to work together to accomplish clearly defined and agreed upon objectives, which could include housing delivery. The implementation of such objectives involves sharing of responsibilities and authority between parties (Gandhinagar, 2015; UN, 2005; Bull and Benedict, 2010; Asian Development Bank, 2000).

Ong'olo *et al* (2006) defines PPPs as "...institutional relationships between the state and the private for-profit and for non-profit sectors, where actors jointly participate in defining the objectives, methods and implementation of an agreement of cooperation". This definition takes PPPs to mean a variation of privatization, but the concept has been seen as being more than privatization. This is because, under PPPs, the government continues to participate actively

throughout the project execution, by setting standards, regulations, laws, monitoring and evaluation of project outcomes (Ayodele and Anusike, 2015; CMHC, 1999; UN Habitat, 2011).

The Canadian Council for PPPs defines the term as “a cooperative venture between the public and private sectors, built on the expertise of each partner, which best meets clearly defined public needs through appropriate allocation of resources, risks and rewards”. This definition has been adopted by European Commission (EC), European Investment Bank (EIB) and HM Treasury (1998) for implementation of PPPs. This kind of cooperation could be defined as being loose, informal, and in some cases strategic partnerships for infrastructure financing and development. PPPs have gained prominence because they allow the public sector to transfer inherent risks to private parties who have the ability to absorb them. As a cooperative venture, the PPP agreement is specially crafted between the government and private bodies, where the bulk of investments are done and managed by the private party in the contract. The implementation of such partnership must be implemented within defined time frames and risk allocation criterion. At the same time, the private party receives payments based on the levels of performance aligned to specified contractual undertakings, which are agreed beforehand. On the other hand, the public sector retains critical roles of supervision, monitoring and evaluation throughout the project (Ayodele and Anusike, 2015; Gandhinagar, 2015; Kimani et al, 2015; Yescombe, 2007; Spiering and Dewulf, 2006; Roger, 2002).

The collaborations intended under the cooperative definition of PPPs are premised on the capability of partners, which is a key consideration for long-term relationships (Allan, 1999). This collaboration, which enhances the participation of private entities in infrastructure and service provision, has been embraced by countries as it reduces dependency on the public sector for the provision of services (Gandhinagar, 2015; EIB, 2004; Ahmed, 2017; Crown, 2000). PPPs can be defined as the arrangement entered into by two or more players, through which a formula for working together is built. This implies some collaboration and cooperation in order to deliver the tasks at hand (Allan, 1999). It has been shown that the envisaged collaboration and cooperation ensures that the diverse objectives and interests of players are harmonized. This is followed by: rigorous contract preparation, definition of protocols, sharing of tasks, risks and benefits and joint undertaking of agreed investments. Operationalization of effective PPP arrangements are central to the delivery of public programmes, many of which have been

neglected, including public housing projects in Kenya (Forrer et al., 2010; Edwards and Shaoul, 2003; Osborne, 2000; Crown, 2000; Kernaghan, 1993; Ribeiro and Dantas, n.d).

The Partnerships British Columbia (2003) defined PPPs as legally binding contracts executed between public and private entities, which aim to provide assets to aid in service delivery. This then becomes a model through which diverse services are provided, and which might be adjusted as per need and prevailing conditions of a specific country (World Bank, 2016). Legally binding contracts lead to the allocation of responsibilities and risks among the various partners, where the private party is responsible in most cases for commercial functions like: design, construction, finance, operations and maintenance. These arrangements create many forms of PPPs depending on the level of public and private sector involvement including risk identification and management. A higher risk appetite of the private sector leads to higher opportunities and returns, which necessitates the operationalization of innovation and efficiency in project delivery. This leads to greater minimization of risks and hence more profits to the private party and superior products to public sector. The bundling of functions and activities to be undertaken and handing them to the private party instils efficiency and innovation, which guarantees steady flow of revenues, incomes and services. Traditional procurement models do not give room for innovation because of the minimal bundling of tasks (Engel et al., 2008; Partnerships British Columbia, 2003).

The US National Council for PPPs supports the definition of PPPs as a legally binding contract, noting that such a clarification is meant to address the required skills and assets possessed by each party to the contract. Once these are shared in a well-defined manner, it defines the way goods and services are delivered. This definition was further adopted by the Brazilian government, with the addition being that these investments should be done in line with public interests. The Irish government also adopted this definition because it was seen to promote enhanced sharing of responsibilities between parties and operationalization of long term contractual relationships. This enables the public sector to scout for best possible quality of service provision mechanisms, actualization of value for money, optimum risk allocation levels, technical, financial and innovative service delivery strategies. The definition of PPPs as legally and contractually binding undertaking is because the private party receives performance-linked payments. These are evaluated by the public sector representatives against specific project

standards, output specifications and deliverables as defined by the contracting or sponsoring authority at the beginning of the contract. The traditional procurement methods of awarding contractual tasks bit by bit promotes the shifting of deliverables through variations (IMF, 2015; Gandhinagar, 2015; Government of India, 2010; IMF, 2006& 2004).

The World Bank Reference Guide for PPPs (2012) defines PPP as “a long term contract between a private party and a government agency, where the contract is aimed at providing a public asset or service, in which the private party bears significant risk and management responsibility”. This definition takes cognizance of the overriding reason for the application of PPPs, which has been the need to bridge the infrastructure and service delivery gaps. It is also based on the fact that public agencies have not been able to adequately manage risks and leverage their assets and finances. Under PPPs, considerable risks and project management responsibilities are transferred to private parties who are best suited to handle and maximize them (Gandhinagar, 2015; World Bank, 2012).

PPPs may be defined as an act of undertaking major re-organization of the private and public sectors to achieve major developmental goals in many fields. This is because PPP models provide alternatives for the inclusion of new financing methods, which reduces the government’s financial burden for service provision, including housing development. The operationalization of such alternatives may require players to change their normal operations, procedures and require them to embrace new ways of doing things. The ability of PPP models to fast track achievement of multiple goals motivates countries to re-organize their systems and tap into the concept to provide, increase and rehabilitate public infrastructure. This makes it possible for such countries to serve their citizenry sustainably. In supporting greater application of PPPs, countries have accepted the concept because it has been seen as a guaranteed alternative through which additional and new capital resources are introduced into project finance. This eliminates existing financial burdens facing many governments, which has limited their housing and infrastructure developments. Successful PPPs requires the ability of stakeholders to achieve inter-organizational and multi-sectoral relationships. This in turn helps to achieve commonly agreed objectives and project outcomes, which could include increased housing development (Ahmed, 2017; Department of Economic and Social Affairs, 2016; Roehrich et al., 2014; Carroll and Steane, 2000).

In the UK, PPPs have been defined as agreements exemplified by jointly working together of the public and private sector players. The concept has been embraced as one that is able to cover the broadest types of collaborations between the entities to deliver services, policies and infrastructural assets. At the start of the application of PPPs in the UK, the term “Private Finance Initiative (PFI)” was widely used to describe the relationship between public and private players, which was later adopted by Japan and Malaysia. Some countries have used the term “Private participation in infrastructure (PPI)” to refer to PPPs, a term widely used by the World Bank and adopted by South Korea. Others countries have defined partnerships as “Public Sector Participation in infrastructure (PSP), P3 or Privately Financed Project initiatives (PFP)” as defined in Australia among other countries (PPIAF, World Bank, 2009). In Australia, PPPs have been defined as a procurement method, where the partnership is structured differently to cover many aspects of the agreement (Gandhinagar, 2015; Australian Government, 2008).

In the Republic of South Africa, PPPs are defined as a deliberate commercial transaction undertaken between public institution and private players, where the private entity undertakes four major activities: performing functions and obligations which are usually a responsibility of government bodies; acquisition of the rights for use of the public authority’s assets or facilities for commercial use during the life of the PPP contract; absorbing substantial fiscal, technical and other applicable risks connected to the performance of such a function traditionally assigned to a public body. These could include attaining legal basis to use the state properties where necessary to cushion itself against some categories of risks which might arise in the implementation of PPP project. Finally, the private entity is obligated to receive benefits for undertaking public functions, which is done through accrued revenues of the developed asset, user charges, government payments or a combination of these (World Bank, 2016; Republic of South Africa, 2004).

The World Bank has further defined PPPs as any joint initiative arranged between the public and private entities, geared towards profits or not. It operationalizes cooperation with associated sectors, businesses, governments, municipal agencies and other civic players in service delivery. Partners in such a joint initiative may contribute various to various aspects of project development including finance, human resources, technology and other intangible facets of effective project implementation like: political, legal, regulatory environment, all of which

facilitates faster project development outcomes (Gandhinagar, 2015; World Bank, 1999). Syracuse University defined PPP as an arrangement effected between the public and private entities to deliver some services or facilities for public use which are thoroughly defined (Syracuse University, 2016). OECD notes that the sole purpose of PPPs is to effectively and efficiently provide more services and infrastructure assets, which have hitherto been provided by the public sector. Under such an arrangement, the private party is obligated to deliver the contracted goods and services by aligning public sector objectives with its profit maximization goals. In such an undertaking, the effectiveness of aligning the players' goals largely depends on establishment of sufficient mechanisms for transfer of risk to the private associates (OECD, 2008).

The Public Private Partnerships Act (2013) of Kenya, defines PPPs as “An arrangement between a contracting authority and a private party which undertakes to perform a public function or provide a service on behalf of the contracting authority.” The private entity receives defined benefits for performing public function by way of: compensation from a public fund, charges of fees from users or consumers of a service or a combination of compensation, charges or fees. The private sector is generally liable for risks arising from the performance of the assigned function as per the terms of the project agreement” (Republic of Kenya, 2013 & 2015).

These definitions can be summarized by the key elements for PPPs definitions provided by the World Bank PPP screening tool in figure 1 below.

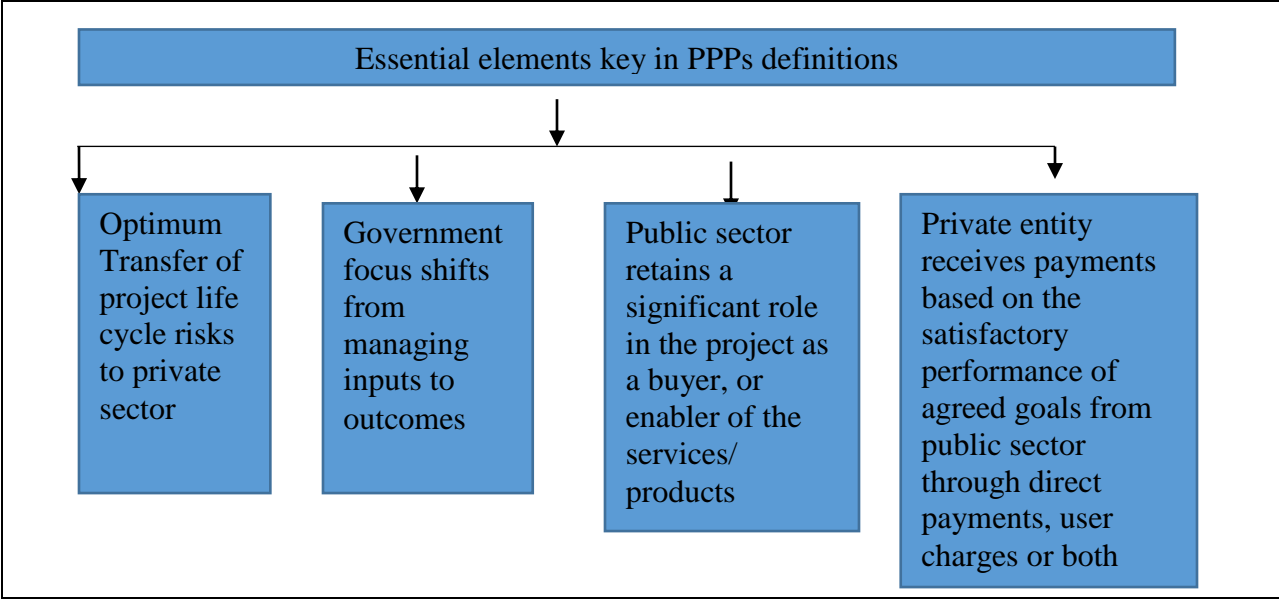


Figure 1: An illustration of the four essential elements of a PPP

Source: Author (2020) borrowed from World Bank PST.

In conclusion, PPPs have been defined in many ways, which have therefore created room for operationalization of many arrangements, which allow diverse ways through which private sector actively participates in the development of public infrastructure and service delivery. PPPs have been seen to operate on a continuum between normal procurement methods, where the government has a high controlling stake in project finance and contracting, to full privatization. The various PPP definitions have taken into consideration the legal, institutional, investment and public procurement aspects arising from its application. The many definitions notwithstanding, pundits have agreed that any definition of a PPP must have seven salient features. First, it is a long term contractual agreement, arrangement and relationship between the government and private entity, through which such a private party contributes to the development of public infrastructure or services. The key feature here is that there must be a contract with clearly defined roles and responsibilities for each party, with attendant commitments (UNDESA, 2016; Yescombe, 2007).

Second, there is substantial private financing and investment in the form of working capital, and as a result of that, the private sector receives some form of revenue through the public budget, user fees or charges or both. Third, there is greater emphasis on the development and provision

of infrastructure and services through the private sector, as opposed to the government provider approach. The government slowly disengages itself in provision of such services and hands over this mandate to well established private players. This is in line with the enabling policies of the World Bank and attendant theories (UNDESA, 2016; World Bank, 1993).

Fourth, there is a considerable and practical transfer of project risks, which includes: investments, designs, construction or operations, to the private entities. This is followed by an elaborate reward system or compensation to the private party being developed. Fifth, the private party must undertake complex contractual duties, deliverables and pre-specified project outputs. Sixth, the developed infrastructure or services reverts to the public sector at the end of the contractual term. Seventh, infrastructure and services which were hitherto provided by the public sector are provided by the private sector under the design and build tasks conferred upon the private player. At the same time, the public sector undertakes land allocation, transfer of assets, debt or equity financing and guarantees for optimal performance of the private party. PPPs, therefore, operationalize high levels of collaborations between parties for enhanced serviced delivery. They go beyond the traditional contractor –public sector relationships (Department of Economic and Social Affairs, UN, 2016; Gandhinagar, 2015; World Bank, 2012; International Institute for Sustainable Development, IISD, 2011).

The seven salient features arising from the application of PPPs are highlighted in figure 2 below.

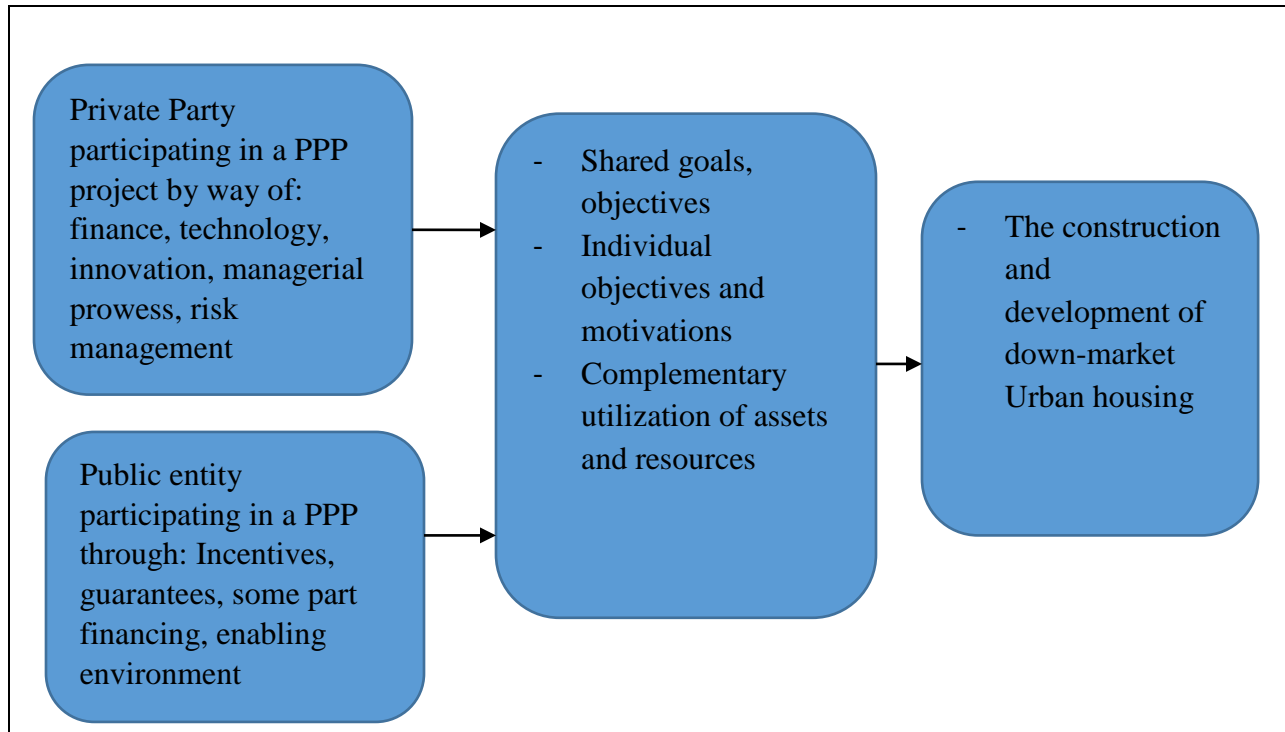


Figure 2: The structure of PPP.

Source: Author (2020) Construction from literature reviewed.

2.3 Meaning of PPPs

Researchers of PPPs have agreed that so far, there is no precise meaning of the concept which is agreeable across the board, which has been formulated so far (Ayodele and Anusike, 2015; Susilawati et al, 2009). This is because the application of the concept has a lot of complexities, dimensions and flexibilities, hence the observed deviations and interpretations across countries and sectors. This also means there is no legally binding one-fits-all term for PPPs application across sectors, and as such, countries have invented an array of terms and meanings to suit their unique reasons for applying PPPs (Gandhinagar, 2015). Internationally, it has been agreed that countries should be clear on the reasons why they are adopting the application of PPPs, the desired applicable models and forms. These must be articulated in their policy documents for ease of application in national development discourse, and providing adequate safeguards in the process of utilization. In this case, PPPs should be considered in accelerating rental, incremental housing and homeownership options in Kenya (Gandhinagar, 2015; Nilufa, 2010; World Bank, 2009; Mc Quaind, 2005).

Arising from the definitions, the first meaning of PPPs is that they are cooperative arrangements which are entered between the public and private sectors to execute agreed upon programmes or

activities. The concept has the meaning of an outstanding or unique cooperative framework operationalized between public and private entities, which should have its operational structures and relationships, defined through legally binding contracts. It leads to clearly agreed upon programmes, project implementation, activities and well-articulated project benefits for citizens. The cooperative environment allows for the effective allocation of responsibilities and risks, which have been a major impediment to actualization of some of the public projects. Under the cooperative aspect of PPPs, the private sector cooperates with the public sector, where it provides capital, organization capabilities and modern initiatives to effectively implement the pre-determined contractual obligations (Gandhinagar, 2015; Koppenjahn, 2001).

The second meaning of PPPs is that it is a distinctive public procurement method based on the long term contractual relationship between the public and private authorities, whose ultimate aim is to provide quality services and goods. This procurement relationship differs from the traditional model where the private sector only contracts with public sector for short term project lifespan without putting substantial resources. In PPPs, the arrangements bring more resources, fiscal discipline, technology, risks and accrual of rewards in a special harmonious arrangement. This makes it possible to introduce greater efficiency, enhanced access to financing, and enriched compliance with laws and regulations. Under traditional procurement, it might be impossible to provide some categories of goods and services, for example, where there are huge upfront capital requirements, technology, innovation and efficiency. Such requirements for modern infrastructure financing can only be availed through PPPs as a unique procurement tool. This is because it does not focus on the lowest bidder as is the case with the public sector tendering process, but on bidders with technology, finance, innovation and efficiency operations (Gandhinagar, 2015; Jamali, 2004; Ham and Koppenjahn, 2001).

The above meanings notwithstanding, stakeholders have highlighted four major connotations touching on the nature of PPPs: as a tool of governance; a financial agreement; a development strategy; and as a language game to critics of the concept (Alexandru, 2015; Gandhinagar, 2015; World Bank, 2018, 2017, 2009).

As a tool of governance, PPPs provide a fresh method through which delivery of down-market urban housing and associated infrastructure, goods and services can be realized for the enjoyment by citizens. This is done through greater engagement of the private sector in the

delivery of public services beyond the traditional arrangements. Such enhanced participation of the private sector in public functions necessitates change of governance and management structures existing in a country. This is because under PPPs, the focus of stakeholders shifts to how to order the services delivery mechanisms and organize the resultant relationship matrix. It is on this understanding that partners deal with effective ways of structuring of the resulting cooperation, identifying and sharing the applicable risks. Risk sharing arrangements for example have been found to form major incentive for private players in undertaking effective PPPs (Gandhinagar, 2015; Savas, 2000).

PPPs must be preceded by application of effective good governance and management ethos, which makes it possible for the realization of new and better goods, facilities, and services to the citizens. Implementation of PPPs means that the public sector makes the decision to delegate its constitutionally mandated functions to the private sector. This decision must be followed by provision of enough financial and operating incentives, whose application must be governed by adequate laws and regulations. The choice to shift to utilization of PPPs should be done in line with existing social – political and economic frameworks, and where such does not exist, there must a review or enactment of the frameworks to adequately meet the defined demand. This implies that governments desirous of tapping into the expertise of the private sector must align itself with adequate project specifications and must be clear on what objectives it seeks to obtain. These must be followed by operationalization of good governance features (Gandhinagar, 2015; Khanom, 2010; Hodge et al, 2005; Savas, 2000).

Application of PPPs either uses the existing private-sector-enabling laws or necessitates the enactment of others to achieve planning and development goals. In Kenya, such laws include the PPP Act, 2013, and other regulations that provide well defined incentive structures for the enhanced role of private players in infrastructure and service delivery. The reliance on the existing laws or the creation of new ones is part of governance reforms and evolution of service delivery discourse for countries. In order to effectively derive benefits from PPPs, the public sector develops adequate policy statements, in which the government lays down the intended outcomes in resorting to the use of the concept to develop low income urban housing and related infrastructure. It on the probability of PPPs evoking new a brand new way of development that the UN has highly prescribed the use of the model to address developmental needs. This is

because it enables the private sector, who have requisite capacities to partner with governments to achieve targeted expansion of infrastructure and service delivery. The high premium placed on partnerships can be witnessed by the fact that the concept has been a permanent fixture in the millennium development goals, as goal number 8 and sustainable development goals as goal number 17. This is because the world can only achieve substantial developments by enhancing the role of strategic partnerships between various players. This will assist to meet the demands for shelter, slum upgrading and other objectives (Greve and Hodge, 2011).

The accruing requirements for operationalization of new governance paradigms in the process of applying PPPs into development discourse has seen the term occasional being mentioned along concepts like: “big society”, which was associated with former British Prime Minister, David Cameron, and “strategy for PPPs and markets”, exemplified by the Danish government. It has been established that new governance and management aspects should be enhanced for effective and efficient operationalization of PPPs in developing down-market urban housing. Throughout the project, stakeholders must embrace full disclosure, embed effective stakeholder engagement and public consultation and information sharing, which implies new governance paradigms. New governance implications need to be embraced because housing PPPs ultimately are concerned with equitable distribution and allocation of housing units developed, in addition to considerations for sustainability throughout the project life cycle (Greve and Hodge, 2011; Bovaird, 2010; Amirkhaynan, 2010; Bull, 2010; Klijn, 2010; Kettl, 2009).

As a financial agreement, it has been shown that successful PPPs should be undertaken with private players who have adequate financial capacity to undertake the agreed project. PPPs are financial agreements implemented between public entity as a contracting authority and the private players, who participate in sharing of risks, profits, investments, resultant assets and utilities, all of which have a cost hence financial implication. The major rationale as why PPPs are recommended is because of apparent lack of adequate and innovative financial and technological resources to address huge infrastructural demands in developing countries (Collin, 1998). Under PPPs, the substantial financial contributions and investments made by the private partner, who are well endowed financially, leads to joint ownership of the assets under development. The private players have abilities to leverage on the public assets and facilities under the right financial incentives structures to develop superior products (Gandhinagar, 2015).

Through the unique and innovative financing models under PPPs, a country can increase homeownership, incremental housing development or enhancing adequate rental housing options (Sanda et al., 2017). Because of the ability to finance more projects under PPPs than is the case under traditional procurement, the concept has therefore been seen as a financing agreement. It has been demonstrated that PPPs enables the financing of down-market urban housing, and related infrastructure, because failure to do so has implications on societal wellbeing (IISD, 2011).

As a development strategy, PPP have been embraced by many stakeholders for application in development discourse because it maximizes the accruing development benefits. These are achieved through cooperation between different actors, which brings about enhanced efficiency in project execution, and makes PPPs to emerge as a new development implementation scheme. The proposition of PPPs as a new development strategy has been supported by studies undertaken by the Asian Development Bank Institution (ADBI, 2000). In order to meet the desired objectives and development outcomes, the structure of the partnership is paramount. It is vital to note that project objectives under a PPP are agreed upon beforehand as opposed to traditional development process where they can keep changing depending on the government regimes. This is followed by commitments by parties to implement the agreed specifications, communication and adherence to up to date standards. Parties must ensure that maximum efforts are applied to overcome the inherent weakness of partners (Gandhinagar, 2015; ADBI, 2000).

The reason why PPPs have been embraced is because many public projects, including the development of down-market urban housing fails because of lack of specific focus on the side of the public sector. In addition, some of the publicly funded projects are not well thought out in the project design, and therefore are not well defined in terms of outputs and outcomes. The projects might also be dictated by the prevailing political climate; whose implications is the implementation of lopsided objectives. Because many public projects have been designed politically, it has led to stalling of projects especially for housing in Kenya from the 1990s. Under PPPs, the private partner checkmates and keeps the government on its toes and ensures that the project objectives are thoroughly defined and developed as per the specifications. This makes PPPs as a development strategy, to deliver better outcomes than the public sector. This is

made possible by the focus of the private partner in delivery of agreed results and its fiscal discipline (Gandhinagar, 2015; Nilufa, 2010; Hodge et al, 2005).

As a language game, PPPs have been criticized as being just another terminology or language game by opponents of privatization of public services and infrastructure. Such critics have opined that the introduction of PPPs in the procurement of public infrastructure and services is an attempt to bring on board private parties in the performance of national functions through the back door. Under this view therefore, critics have noted that PPPs is just another language game that proponents employ to make the private sector dominate the spheres of the public sector. Some authors have also criticized PPPs as being a “loose” term while others see it as “a fashionable word” employed by public sector to evade their responsibilities. Grieve (2003) characterized the term as meant to make contracting authorities hide the attention of citizens away as they continue to procure public goods and services through PPPs (Gandhinagar, 2015; Grieve, 2003).

Other opponents of PPPs have noted that the model has been used to avoid disapprovals and controversies associated with privatization, therefore observing that PPPs is just privatization. Such critics have pointed out that through PPPs, governments may entice private partners to enter into such arrangements without having the real intentions of keeping their part of the bargain. This may eventually lead to failure of the projects to achieve its objectives once the private partners realize that the government was not pro-PPPs. In order to counter such arguments, governments must show their readiness for PPPs by creating an enabling environment. This should be demonstrated through putting in place adequate regulations, incentives and guarantees for effective participation of the private sector in envisaged developments (Gandhinagar, 2015; Stern et al, 2005; Bovaird, 2004; Grieve, 2003).

2.4 Evolution of PPPs and its applicability in down-market urban housing

Many infrastructure and project development concepts used currently, were fronted, tested and utilized by older civilizations through evolution, which brought many technological innovations to solve longstanding challenges confronting humanity. Urbanization, and its challenges, has been with humanity for a long time, and as such, the growth of urban areas has obligated governments to seek alternative ways of providing municipal services, including housing. Urbanization has been cited by scholars as one of the greatest civilizations to have occurred to

mankind and also the first characteristic of all civilizations, which affected all kingdoms formed on earth. Empires and kingdoms increased in population sizes hence clustering of human settlements which in turn brought about competition for access and utilization of resources. Authorities were, therefore, forced to develop instruments to maintain a competitive advantage over others (Hugh, 2014; Bonin, 2010).

By the time of Akkadian, the empire of King Sargon in 2250 BCE, major urban conglomerations had grown to become states, which made civilizations to codify existing laws, norms and traditions, including the Hammurabi code of 1790 BCE to guide developments. These codes addressed modern contract matters, like rights to access land and services. They accelerated the development of private finance and debt instruments for project financing and eliminating overreliance on public financing. It led to the growth of rich merchants, who financed urban projects hence, supporting exponential growth thereof. The means of public sector financing through taxation and the supervision of projects by the military was not sustainable. Countries also used slavery and forced labour for the construction of infrastructural projects, for example, the building of the Suez Canal of Egypt in the 1860s, heavily utilized forced labour obtained from fishing villages along the Red and Mediterranean seas and this necessitated development of labour standards (Hugh, 2014; World Shipping Council, n.d).

The development and installation of water supply and sanitation systems in urban households was later accelerated in urban areas through the qanat system developed by the Achaemenid Empire. This technology moved water through a system of subterranean galleries, dug at an upward slope into the rock systems. This was made possible by the existence of a royal decree which granted private entities who dug such qanats rights to all accruing profits for five generations as recorded by Polybius of Greece, hence a reference to private parties financing the development of public infrastructural assets. At that early time, there were attempts made at regulating the participation of private parties in infrastructure development and embedding timeframes and sharing of risks. Greek laws required owners of private wells to maintain them in good conditions, but they were to avail them for public use in times of war. Decrees were providing for the sinking of water wells by private individuals where public wells were not found within a distance of 710 meters, a form of PPPs (Hugh, 2014; Adam, 2010; Koutsyiannis and Angelakis, 2003; Lightfoot, 2000; Goblot, 1979).

Public private contracts have been shown to have existed as far as 381BCE between the independent city-state of Eretria and a foreign contractor (Chairephanes). This contract involved the implementation of engineering works to drain Lake Ptechai, which had all features of modern project finance, where risk identification and apportionment were clearly spelt out. The contractor financed the works and paid a lump sum of thirty talents to the city as a contracting authority, and the private player was incentivized through the grant of exclusive rights over the fields for cultivation, retention of the products realized from the reclaimed land for ten years, and exemption from payment of taxes. The law provided extreme sanctions for unwarranted cancellation of this contract, hence a form of guarantee to the private party, a feature of modern concessions (Hugh, 2014; Bezancon, 2004; Knoepfler, 2001).

The success of private financing and the development of infrastructure continued in other civilizations, which improved on what earlier evolutions had developed. The Roman Empire, for example, provided poor people living in its cities with a wide array of public goods and services such as public baths, squares, parks and forums. Privately financed and operated toll roads and bridges were common in early empires, as documented by Greek Historian and Philosopher, Strabo (63 BC to 21 AD) in *Geographica*. Strabo documented that Caesar Augustus ordered for operationalization of tolls on Little Saint Barnard Pass, while Roman Empire consuls like Julius Caesar used their resources to maintain roads under their areas of jurisdiction, a form of PPP. Roman Empire citizens offered gifts to fund the financing and construction of infrastructure including bridges and public buildings, and popes funded the rebuilding of Rome's aqueducts. Private citizens also contributed some incomes through their water and sewer connections to augment revenues from taxation for public works functions. Private citizens were also used to carry postal mails through the state roads, all of which are forms of PPPs. These improvements in infrastructure provision through forms of PPPs increased urbanization rates in the Roman Empire such that about 14% of Romans lived in urban areas by 150 BCE, which can only be compared with global urbanization rates in 1800, which remained below 20% until 1850s (Hugh, 2014; Verma, 2013; De Luca and Lorenzi, 2013; ECK, 2003).

Around 1000 CE Europe started undergoing major shifts in urbanization with new and old cities in Italy and Flanders developing innovative ways of funding the provision of urban services. For example, the city of Venice used proceeds of trading with the east including China, to build an

extraordinary city in the middle of a lagoon, through land reclamation. This development facilitated the accumulation of more capital, leading to the emergence and growth of a new merchant class, which then funded more infrastructure developments through collaboration and incentivization from the state (Pirenne, 1956). Toll collection (teloneum) on roads and canals was re-introduced in cities, which increased urban area revenues, such that the private and public wealth instruments so developed, were greatly utilized in the construction of public infrastructure and great cathedrals of Europe in the 12th to 16th centuries, a form of PPPs. The English Crown in 1299 financed from their sources the construction and development of Devon silver mines, while the construction of London's great conduit in 1237 utilized grants of land and springs from the king, with contributions from merchants. Merchants also contributed to the building of conduits in cities like Amiens in return for some privileges and incentives from the state. Town councils in Paris, Dublin and Southampton used partnerships with monks to develop water supply systems, some of the earliest forms of PPPs. Various European sovereigns granted private financing and development of public infrastructure services like roads and public transport, waste collection, public lighting and canals from 16th and 17th centuries (Gandhinagar, 2015; Hugh, 2014; Economic Commission for Europe, 2010; Alabama University Transportation Centre, 2010; Magnusson, 2003).

From the 1500s onwards, private investments in infrastructure gained a prominent role, which has continued to increase for more than 1000 years (Gandhinagar, 2015). The greater role for infrastructure financing through private players in Britain, for example, was instrumental in funding the voyages, discoveries, and trade through the formation of joint shareholding corporations that did trade with the East Indies and beyond. Companies like New River, formed in 1619 utilized adventure shares from private capital for the building of a 60-kilometer canal to supply additional freshwater to the city by utilizing the Royal Charter, which created an enabling environment for such investments, another form of PPP. Tolls were set through an Act of Parliament in 1776 and remained unchanged for over 200 years, but were eventually removed in 1950 due to opposition to their continued use. France used tolls for the financing and construction of bridges and other infrastructures before and after its revolution in the year 1789, while the agrarian revolution in Britain operationalized the application of turnpikes for financing, maintenance and improvement of roads, made possible by the enactment of the Turnpike Act in 1663. From this law, 48 kilometers of the Great North Road in Huntingdonshire, was constructed

and other roads expanded by borrowing funds against future toll revenue projections. Toll roads were developed in the USA from 1780 to 1900s (Hugh, 2014).

Private companies in the UK used their accumulated capital to build a 6400km network of canals during the “canal mania” between the years 1793 to 1820, while increased commercial interests in the shipping industry in the 18th century attracted more private finance in ports development. Private companies would also raise additional financing by listing in the London stock exchange, and such private financing in Britain and France aided the rapid construction of railways in the 17th century in the UK, Argentina, Uruguay and Brazil (Ragazzi and Rothengate, 2005). Private financing through concessions was used at the beginning of 19th century in developing all major water projects in US, and the electricity infrastructure in Chile, Brazil and Mexico (Department of Economic and Social Affairs, 2016; Gandhinagar, 2015; Hugh, 2014).

Concession contracts developed in the Greek legal systems were embraced by Romans in accomplishing public works, and by France, for over 2000 years (Bezancon, 2004; Knoepfler, 2001). They were used in the 19th and 20th centuries for financing, development and construction of railway lines, metro, lighting, waste management, heating, water and power infrastructures. Affermage concessions are a form of service concession under which a private entity is not required to undertake a major capital investment on an infrastructural asset and was developed in France in the 19th century. These concessions had “user pays”, and “government pays” components which are similar to the user pays and government pays PPP principles, which became dominant in the 1980s and 90s. From the 2000s, more of government pays PPPs were utilized in infrastructure finance to fund some critical infrastructure (Hugh, 2014; Verma, 2013; European PPP expertise centre, 2012).

The role of private financing in infrastructure increased further in the 19th century, as a result of the prevailing policies of laissez-faire, emerging societal changes, rapid urbanization and the expansion of the markets (World Bank, 2002; Newbery, 2002). The sources of revenue for urban and public authorities had experienced some decline which necessitated a focus on concessions and private finance. In the latter half of the 19th century, the concept of municipalization emerged, which advocated the increased provision of public services by the urban authorities. This shift was driven by the emergence of socialist movements, which believed that some goods and services were either too profitable or too critical to be left to in the hands of private entities.

The many wars and recessions made a case for national ownership and stronger regulations of facilities, which peaked in the 1940s and '50s (Hugh, 2014; Verma, 2013; Parker, 2012; Bell, 2011).

Nationalization led to price controls, capping of interests on investments, unwillingness to increase tariffs and rejection of foreign investments and monopolistic tendencies in the production of goods and services. In the end, nationalization and overregulation failed to deliver the required infrastructural financing, which necessitated a reversal to privatization and PPPs in many countries in the 1970s and 1980s (Ribeiro and Dantas, n.d; Hugh, 2014; Verma, 2013; Millward, 2005; Friedlander, 1996; Klein and Roger, 1994). From the 1980s the United Kingdom (UK) took the lead in increasing the role of the private sector in infrastructure delivery. In many other countries, the public sector devised new systems of regulations that would incentivize private players and through which quality and effective infrastructure, including urban housing, were delivered. The enabling environment created by the state increased the role of the private sector such that in 1973, the first privately financed mobile telephony constructed the first privately owned aerodrome in London. These private financing initiatives through PPPs increased to cover other areas such that between 1990 and 2001, 662 transport-related projects valued at US\$ 135 billion developed all over the world (Hugh, 2014; Parker, 2012; World Bank, 2002; Newbery, 2002; Ribeiro and Dantas, n.d).

It can be seen that the provision of infrastructure has evolved over many years, and the government has enabled this development through the creation of institutions to operationalize the legal and contractual obligations in private financing. This has been done through the creation of concepts of rights of way, public land, provisions allowing for charging for services offered and honouring contractual obligations. Throughout history, the role of the state as a regulator, contracting authority and major investor in the provision of infrastructure and services has been consistent, but at the same time, the participation of the private sector has been key in availing innovation, risk-taking and maximization in projects development. It has acted as a catalyst for efficiency and effectiveness in infrastructure delivery, through privatization and later PPPs, which were at their peak in the 1990s and by the 21st century was widely accepted. The application of privatization principles in infrastructure financing was prevalent in the 1980s (Ford and Zussman, 1997). Application of PPPs gained traction over privatization in the latter

parts of the 1980s because privatization involved heavy subsidy, which was politically incorrect and contentious (Hugh, 2014; Verma, 2013; ACCA, 2012; Abdul, 2007; Gunawansa, 2000; Savas, 2000).

Improvement and expansion of urban infrastructure needs including the down-market urban housing is premised on three issues. First, mechanisms that lead to improved governance and resource mobilization for financing the housing requirements should be put in place. This should be done through mobilization and application of enormous private sector financial capabilities. Second, the public sector should improve project and investment implementation efficiencies through utilization of the resources resident in a country. Last, countries must utilize strategies that focus on citizen’s service delivery measures to guarantee maximum benefits, all of which are reasons for embracing PPPs. Application of PPPs started in the 1990s with an initial focus on economic and physical infrastructure sectors including telecommunications, electricity and water, but later expanded to cover health, education, garbage collection and agriculture, though with mixed results. In Africa, South Africa leads in application of the concept with over 50 and 300 partnerships at the national and provincial levels respectively having attained financial close between 1994 to 2005 (Gandhinagar,2015; Hugh, 2014; Mela, 2012; Moszoro and Magdalena, 2011; OECD, 2008; Ong’olo, 2006, SAILA, 2005). Figure 3 illustrates the extent of private sector participation in infrastructure.

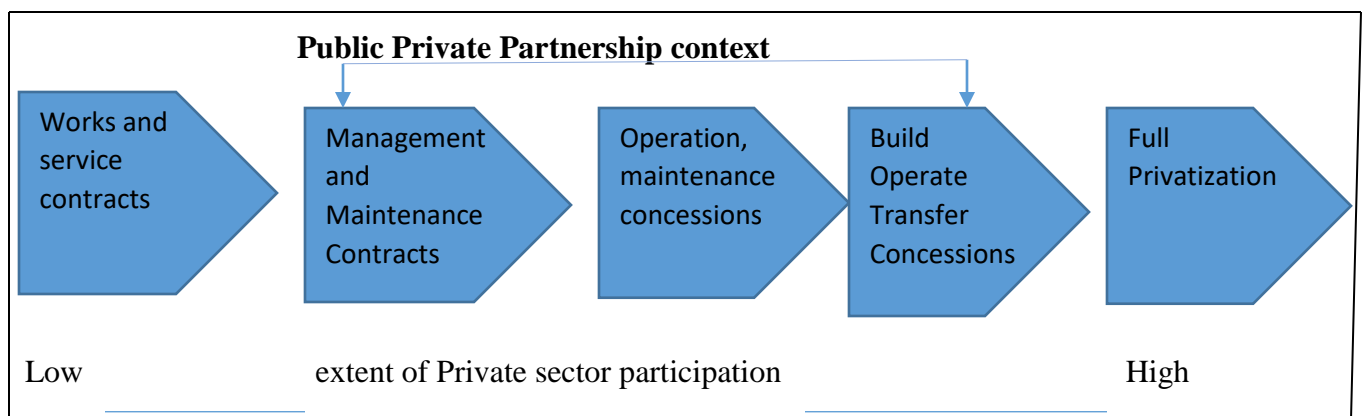


Figure 3:Extent of private sector participation in PPP projects for down-market urban housing. Source: Author (2020) with adaptation from Gandhinagar, 2015.

2.5 Why PPPs are preferred?

The preference for application of PPPs as a new strategy for crowding investments in infrastructure and other public works has grown tremendously in the last twenty years. This increased importance and appreciation of PPPs in accelerating infrastructural development is

manifested by the fact that between 1990 and 2009, more than 1300 different PPP contracts worth more than 25 billion Euros have been implemented. In the same time, 350 new projects attained financial close by 2007, which shows that private developers appetite for the concept also increased. In addition, 2,750 infrastructure projects valued at US\$ 786 billion, have been financed through PPPs between 1990-2003 globally. Overall, 47% of such projects were in Latin America and Caribbean regions, with Mexico and Chile being cited as success cases (IISD, 2011; Colverson, 2011; Achieng, 2010; Elizabeth and Martimort, 2009; IMF, 2004; Webb and Pulle, 2002).

The increased acceptance attached to the application of PPPs has arisen because the concept is seen as a plausible alternative for infrastructure and housing projects financing. This is because it has evolved over time, which has increased its acceptance by the private and public players. It has been further supported by the emerging consensus that public and private entities are no longer competitors, but strategic partners in development. This is evidenced by their long tradition of collaboration in funding many ventures globally (Bothale, n.d; Colverson, 2011; Osbourne, 2000; UN, 2008). There are five major attractions for PPPs. First, the application of PPPs enables the public sector to overcome its budgetary constraints in project financing by minimizing the chances of accumulating bigger debts. This is because the concept can be structured in such a way that innovative financing strategies of the private sector are utilized in designing, financing and construction.

The public sector then pays for goods and services or shares the accruing revenues with its private partners. Through PPPs, the private sector has more resource mobilization strategies and as such it is more likely to mobilize resources faster than the public sector, especially for large complex projects. The government would have to deal with political implications of borrowing or face the contentious privatization in pursuit of resources, but under PPPs, such dilemmas can be avoided (Brookings Institute, 2014; Babatunde et al., 2012; Yahaya, 2008; Jones, 2002). The participation of private entities in infrastructural development reduces the overall government financial burdens, without compromising overall project qualities and standards. It enables governments to access innovative financing and adequate resources (Sulser, 2018; Onyemaechi and Sammy, 2016; Walker et al., 1995).

Second, the application of PPPs enables the utilization of private sector expertise, efficiency, effectiveness, techniques, managerial prowess and delivery methods, which makes it possible to develop superior products and services (Bayliss and Waeyenberge, 2017). It increases the uptake of technology, flexibility and innovation in project execution because the contract is long term and as such, it gives the necessary stability and comfort to infuse effective delivery strategies. This has the effect of ensuring that the products developed reach the target groups by reducing arising costs (National Council for PPPs, 2016; Achieng, 2010; Moszoro, 2010; Ellman, 2006; UN, 2008; Ghobadian et al., 2004).

Third, the application of PPPs increases fiscal and monetary discipline from the private sector in project financing. This has the effect of enabling the completion of projects on time, on budget and as per the specification, which eliminates chances of project cost overruns. This enables citizens to start utilizing the project and its benefits faster than is the case with traditional procurement. It also brings about Value for Money (VfM) in public projects. This is because private players will act in the best ways to derive more profits for project sponsors and financiers (Brookings Institute, 2014; Achieng, 2010; Ellman, 2006). Fourth, PPPs operationalize the ability to utilize public assets better than is possible by the public sector. Governments own many assets, which in many cases are not adequately used to offer goods and services, for example, land and old estates. Under PPPs, such assets are optimally utilized to generate more revenues without changing their ownership, which stimulates the local economy, for example, by increasing property values (Brookings Institute, 2014; Vaillancourt-Rosenau, 2000).

Fifth, the application of PPPs enables for bundling of project activities and award to a single contractor or a consortium. This is followed by elaborate risk transfer mechanisms to the private party, such that construction, finance, operation and maintenance risks among others are transferred to the private entity. This becomes a strong incentive for the private partner to maximize and increase efficiency in meeting project objectives and goals. Bundling of various project-related tasks has been cited as an incentive alongside risk transfers, which are the main justifications for the operationalization of PPP initiatives (Alexandru, 2015). Bundling reduces instances of piecemeal award of contracts and other ancillary issues including politics (Brookings Institute, 2014; Van den Berg, 2011; Page and Wright, 1999; Peters and Pierre, 2004). The bundling of services and awarding the same to private entities enables the

government to focus on monitoring and evaluation aspects of the projects, which are well developed in the public sector and are less costly than actual project delivery (Metaxas and Preza, 2012).

2.6 Application of PPPs in general

The increased application of PPPs in many sectors across the world has been premised on the dwindling public financing options in delivering goods and services to the citizenry. This has necessitated a paradigm shift with regard to how infrastructural demands and services are met. Modern financing options and technology are being introduced in infrastructure development. Under PPP approaches, partners work in mutual partnership arrangements with private parties to develop, manage and provide public services, while at the same time enabling governments to exploit the private partner's managerial prowess, capital resources, technology, and delivery mechanisms. It also allows the public sector to maintain some control over the developed assets, which has seen many counties and sectors gradually embrace the application of PPPs. It has been taken as a panacea for a variety of development situations (ACCA, 2012; IISD, 2011; Ong'olo, 2006).

Many countries have entrenched the application of PPPs including UK, USA, France, Italy, Netherlands, Australia, Hungary, Italy, Spain, Japan, Chile, Brazil, Singapore, India and South Korea, and have successfully exploited the application of the concept. PPPs form the core of the European Union (EU) initiatives aimed at making the block economically competitive and innovative in developing infrastructure such as the Trans – European transport networks (Verma, 2013). Arising from this, PPPs have been applied in the provision of many infrastructure assets and facilities like hospitals, prisons, schools, roads, bridges and tunnels, light rail networks, air traffic control systems and structures, and water and sanitation works and treatments. Rail and road projects combined accounted for more than 84% of all projects developed through PPPs in the US and other countries (Syracuse University, 2016; Gandhinagar, 2015; Public Works Financing International, 2010).

According to the World Bank, one hundred and thirty-five (135) countries are actively using PPPs in diverse areas of their economies, out of which 15 countries are in East Asia and Pacific region including Malaysia, China, Indonesia, Philippines, Singapore, Thailand and Vietnam. Another 21 countries are in Europe and Central Asia, including Russia, Turkey and Ukraine,

while 18 countries are in Latin America and the Caribbean including Brazil, Argentina, Mexico, Jamaica and Uruguay. In the Middle East and North African Countries (MENA), 12 countries are utilizing PPPs, which includes Algeria, Egypt, Iraq, Kuwait, Morocco, Saudi Arabia, Tunisia and EAE. In South Asia, 6 countries are using PPPs including India, Pakistan and Sri Lanka, while 34 countries are using PPPs in SSA including Botswana, Ethiopia, Rwanda, South Africa, Zimbabwe, Tanzania, Ghana and Uganda. In the OECD, 29 countries are using PPPs, including Australia, Belgium, Chile, Denmark, Germany, Greece, Italy, Japan, Portugal, Poland, Spain, Sweden among others. In Europe application of PPPs began in the transportation and built-up areas, including in water supply sectors, because of the acceptability of user pays principles, but which in some cases faced opposition from poor communities. Australia and Malaysia extensively used PPPs in the transport, water and waste management sectors (World Bank, 2018; Ong'olo, 2006).

India has the maximum number of PPP projects in the transport sector, mostly in the expressways, as a result of a government decision in 2013 to develop 95% of its transport facilities –airports and railways included - through the model. PPPs led to the construction of 53.4% of roads which contributed to 46% of GDP. Many states have also extensively used PPPs in financing the development of roads, ports, energy, water irrigation, telecommunications, water supply and the development of airports, hence 758 projects are PPP projects worth over US\$ 320 billion. The Indian government had set a target of 30% participation by private entities in infrastructure provision but achieved a 34% participation instead from this group, showing the increased appetite for application of PPPs (Economic Survey India, 2010 -2011). The Indian government planned to use US\$ 1 trillion in infrastructure development under its 12th plan, with 500 billion US\$ scheduled to be obtained from private entities (Verma, 2013). So far the greatest area of PPPs application in the country has been roads at 53.4%, contributing to 46% of the GDP. Pakistan has increased the uptake of PPPs in sectors like transport and logistics, mass urban public transport, municipal services, social and energy sectors among others (Kavishe & An, 2016; Gandhinagar, 2015; Verma, 2013; Government of India, 2010).

PPPs arrangements have been used in other softer areas such as cases for the promotion of rapid growth in a variety of ways, means and projects of diverse nature. The concept was used in the better work programme undertaken in Cambodia, Vietnam and Indonesia in 2007. It

operationalized a unique partnership between ILO and the International Finance Corporation (IFC) to improve labour and competitive standards in countries including Bangladesh, Haiti, Jordan, Lesotho, China, Cambodia, Vietnam and Indonesia (ILO Regional Office for Asia and Pacific, 2011).

The government of Peru used PPPs through the national system for the promotion of the model through “National Private Investment Promotion System – SNPIP”. This system brought together various stakeholders under seven principles to guide the application of PPPs: competition, transparency, focus on results, planning, budgeting, value for money and risk allocation (Republic of Peru, Ministry of Economic Affairs, 2017).

Some of the countries which have utilized PPPs and the lessons learnt so far are illustrated in table 1 below

Table 1: Examples of countries that have applied PPPs and lessons learnt.

S/No	Country	Use of PPP	Issues	Lessons learnt
1.	Argentina	Toll road concession	Complex bidding criteria, absent of regulations to guide negotiations; limited public support	Need for a well-defined legal system and strong institutions.
2.	Brazil	Construction of 850km of roads for over 25 years. Private party to inject US\$ 1.1 billion	The role of multi-lateral development banks in financing such a project	Need for diverse funding mechanisms - cross-subsidizing to fund unprofitable infrastructure.
3.	Chile	Toll roads, tunnels and related infrastructure, to attract US\$ 4 billion from 1997-2000	Challenge of harmonizing goals of the public and private entities	Harmonize goals of the parties to contract; undertake transparent and competitive tender processes; adequate communication.
4.	Colombia	Rehabilitation of 1,080km of roads at US\$ 1.2 billion and construction of 250km of new roads		Private party brought in additional funding, efficiency, hence must have a role in a future revenue generation plan
5.	China	Construction of 130,000km of roads by the year 2000 with US\$ 150 billion	Private sector players who were cash deficient	Need to leverage on existing public sector assets for additional capital; establish adequate laws, build capacity; commitment by parties; credit worthiness; flexibility and

S/No	Country	Use of PPP	Issues	Lessons learnt
				transparency.
6.	France	Toll roads	Cross subsidies were a major challenge; toll financing is double edged, dilemma of regulating concessions	Safeguard against possible conflict of interests in concessions, thorough consideration of environmental issues throughout the project implementation.
7.	Hong Kong	General public assets and facilities financing	PPPs brought in to introduce innovative technologies, efficiency, increase stock of available infrastructure and need to carefully utilize public funds	Allow private developers some degree of flexibility; undertaking independent monitoring; Gauge the capacity of the private players to be engaged by the government.
8.	Hungary	Toll motorway		Need for actual demand analysis; generate public interest and support; proper enabling laws; government commitments and guarantees
9.	Italy	Toll motorway	Concessions granted to companies owned by public authorities	Need to have strong toll roads operators; ensure public support; limit use of government subsidies and use special accounts to shore up the project.
10.	UK	Roads, bridges and tunnels	Legal restrictions and public resistance to private financing of infrastructure	Important to tap into contractors with adequate capacity; innovative financing methods and ensure public support and good legal environment for diverse projects through PPPs.

Source: Author (2020) with adaptation from Ribeiro and Dantas, n.d

2.7 The rationale for private sector participation in housing delivery through PPPs

Housing and related infrastructure services require huge capital outlays, complex accomplishments with attendant detailed skills during construction and operation, and appropriate risk management (Hugh, 2014; UN Habitat, 2011). Inadequate financing of housing and related infrastructure has confined people to slums and informal settlements. This has led to increased appreciation and application of private sector initiatives in housing project design,

finance, operation and maintenance. This is because adequate housing creates good room for service delivery, accommodation, safety and comfort of citizens for overall national productivity (Hugh, 2014; Babatunde et al., 2012; Akampurira et al., 2008; Estache, 2004; Esfahani and Ramirez, 2003).

Urban authorities have faced many challenges in the pursuit of mass housing development programmes, and as such, it has been pointed out that two-thirds of Africans live in slums and informal settlements. African urbanization has taken place without requisite housing infrastructure and interventions, which calls for a paradigm shift in housing development (Republic of Kenya, 2016; UN Habitat, 2011; Arimah, 2010; Pieterse, 2008; Page, 2008). Partnerships with private entities improve and expand the roles of countries in delivering required housing and take their capabilities to newer heights and achievement levels. Such PPP frameworks enable the public sector to concentrate on laws, regulations and enabling environment, in addition to effective resource utilization and implementation of reforms. This ensures that low-income urban households have access to housing, hence ensuring sustainable development for all (Urmi, 2005; Pugh, 1994; UNCHS, 1992). Partnership with private players, therefore, enables countries to overcome delivery challenges because of resource capabilities, techniques, mobilization and ideological shifts of private players (Ghobadian et al., 2004; Bothale, E., Walker et al., 1995).

Many strategies for increasing private sector participation in infrastructure have been developed because of the challenges faced by the public sector in service delivery. This is after the realization that conventional public sector housing delivery methods have not kept pace with the growing demand, resulting in housing supply backlogs. The public sector is deficient in funding, management and operationalization of various down-market urban housing and housing infrastructure facilities. Various state agencies have also failed to deliver as required and in some cases led to the development of monopolies that are deficient in innovation, technology and competition. Some of these agencies have not improved coverage and access to services; instead, they have led to the unaffordability of services, inefficiencies and poor maintenance and operation of facilities (UN Habitat, 2011; Grimsey and Lewis, 2004). Public housing schemes have faced challenges of poor resource allocation and mobilization, lack of transparency, and accountability, service prejudices, and biases which have led the prevailing shortages (Babatunde

et al., 2012; Kempe, 2010; Jerome, 2009; Jin and Doloi, 2007; Global Legal Group, 2007). Many methods of private sector participation have been explored and PPPs is a major strategy for countries with a multiplicity of challenges including debts and monetary crises which have plagued countries for some time since the 1980s (Mohamed, 2017; Greve, 2013; Palmer and Glady, 2009).

Countries have introduced many reforms that permit greater participation of the private sector, which has a bigger role to play in modern financing and development of housing. The participation of such players leads to increased growth and development in a country (Egert et al., 2009; Straub, 2008; Romp and de Hahn, 2005; Gramlich, 1994 and Aschauer, 1989). This is provided as a solution to addressing the twin challenges of undertaking housing infrastructure development with limited national resources, and high demand. The reforms have created room for increased application of user pays principles in infrastructure provision, which attracts more private players into financing such developments. The reforms have also led to the dismantling of the long-held notion that it is only the government that can provide services and goods. This idea was further accelerated by waves of technological changes driven by the private sector, which made the production and delivery of down-market urban housing more sophisticated but cheaper on large scale. There was a realization that targeted and well-applied incentive structures, can spur operational efficiencies from the private sector in the funding and development of housing. This has been supported by the ongoing push for private entities to embrace social responsibility principles to encourage them to cooperate with public authorities in addressing the same (UN Habitat, 2011; Kettl, 2008; Grimsey and Lewis, 2004; Milward and Provan, 2000).

The private sector has had a long history of collaboration with the public sector in development. This is because the private sector has large capital outlays which can take up the role of financing housing development and associated facilities. The Kenyan private sector for example contributes 97% of the country's GDP and 80% of formal employment opportunities. The private sector operates under political operational efficiency and independence, economic rationality, dynamism, innovation, and application of value for money considerations in project development (AfDB, 2014; UN Habitat, 2011; Ali, 1997). Global private players have developed successful projects from one corner to the other due to globalization and the advent of the information age.

Companies that succeed in the application of PPPs in one country move to other countries where they infuse modern technologies, productivity and competence in financing infrastructure, which are in high demand due to globalization and its associated call for high-quality life. Research shows that the private sector is willing to participate in developing their countries and this is possible under PPPs (Anjarwalla and Khanna, 2013; UN Habitat, 2011; Ali, 1997).

The World Bank has made three conclusions on the rationale for private sector participation in infrastructure through PPPs. First, throughout history, the private sector has been a constant partner with the public sector in the development and financing of infrastructure. Therefore, its participation through PPPs is not new but a way of making the relationship more innovative and effective, alongside the need to balance the socio-political, legal and economic realities of countries. Second, political processes determine the nature, location and housing development levels in any given region because political players have a bigger role in housing infrastructural development policies and financing. This has led to underfunding of some areas and sections of countries including slums and informal settlements and as such, PPPs have been proposed a method through which these areas can be addressed. Third, the best practice for infrastructure and service delivery is for public sector agencies to undertake the roles of regulation, guarantees and other possible forms of support to the private players (Shelter Afrique, 2014). This acts an incentive for private sector involvement in housing development, a task which they are best placed to undertake. Under PPPs the private sector is more emboldened in partnering with the public sector because political and bureaucratic hurdles in project implementation are removed, and partners perform tasks which they are best placed to perform, that is, complementarity in service delivery (Hugh, 2014; Golden and Picci, 2008; Cadot et al. 2006; Eichengreen, 1995; Jacobsen and Tarr, 1995).

2.8 Applicability of PPPs in down-market urban housing in Kenya

Salleh (2008) showed that the contribution of housing development is more advanced and plausible where private entities are engaged than in instances where the public sector wholly performs this function. The public sector has attempted various delivery models and strategies including the promotion of building materials, technologies and financing options within the budgetary cycles but these have not yielded the expected results. The role of the private sector in working with the public sector to deliver housing has not been in dispute, but the ability of the public players to fund such projects has been declining with time. It became apparent that the

public sector does not have the requisite resources and capabilities to deliver housing, which made them to operationalize various partnerships and arrangements with the private players (Ahmed, 2017; Ukoje and Kanu, 2014; Ibem and Aduwo, 2012; Ndubueze, 2009; Aribigbola, 2008; Pesoa, 2006; Ajanlekoko, 2001; Bennet, 1998; UN Habitat, 1994; UNCED, 1994). Countries have, therefore, been increasing the role of private entities in financing housing, where for example, the private sector in Malaysia contributes over 90% of all housing developments. There is a consensus that the public cannot be left to address the challenges facing the housing sector and as such, the application of a wide range of incentives to private entities, with proper governmental controls and regulations, can accelerate housing delivery. This will ensure that private parties complement government efforts and alleviate the huge housing demand, especially through properly structured PPP initiatives. The initiatives succeed when they align the interests of the parties to the goals of a well-housed nation (Muhammad and Ado, 2014; UNCHS, 1991).

According to Wahab et al., (1990), the public sector should gradually cede itself from the traditional role of being the housing provider, and shift to “enabler” for housing delivery. This should be done through adequate regulation, laws, institutions and investment climate to encourage the increased role of the private sector. This can be made possible through a number of ways including the application of PPPs, which if utilized properly play a vital role in increasing the available housing stock in a country. Through PPPs, the public sector can leverage on the private sector’s capital and expertise in housing development (Ahmed, 2017; Buckley and Kalarickal, 2005; Rondinelli,2003). PPPs promote the participation of many stakeholders, who utilize their diverse capabilities to deliver adequate and modern housing products, in housing delivery. Through this partnership, the public sector reinvigorates itself to be able to address and reduce the existing housing affordability challenges (Shelter Afrique, 2008; UN Habitat, 2006).

PPPs in housing will lead to a balanced delivery mechanism between the players, where the partners achieve their goals, for example, the public sector can achieve its housing development requirements without using more budgets or loans. The extra funds saved from undertaking such a venture can be utilized in other sectors of the economy that might not attract private players. The private sector has access to many public sector opportunities and stable contracts (Babatunde et al., 2012; Achieng, 2010; Elbing and Alfen, 2005). Strategic application of PPPs,

therefore, leads to social and economic benefits because the stakeholders deliver the required services in a sustainable manner, which is in harmony with the environment, as opposed to the traditional procurement methods that do not factor in sustainability (which is a key development paradigm for this century and beyond), and responsiveness to societal demands. PPPs focus on the balances between principles of the partners, unlike privatization which would embed all private sector tenets, some of which might disadvantage the urban poor. PPPs in housing involve consultations and people's input in the design and development of housing units and this eliminates many hindrances to the uptake of the completed units (Alexandru, 2015; AfDB, 2015; Weber and Khademian, 2008; Ala Gore, 1993).

The application of PPPs is possible because of the willingness of the private players to partner with the public sector in the development of down-market urban housing, with their only requirement being the creation of an enabling environment from public entities. The enabling environment envisaged includes favourable policies, laws, incentives and sharing of responsibilities between partners for efficiency and effectiveness in housing delivery (Urmi, 2005; Chakravarti, 1998; Ogu and Ogbuozobe, 2001). Traditional approaches of housing delivery lack the application of sound economic policies because either subsidies are not adequately used or are misused and fail to reach the target group (Republic of Kenya, 2016; Mutisya, 2015; UNECE, 2012). In PPPs, the partners undertake joint project initiation, clear formulation of goals and results, which eliminates any hesitations in service delivery, in addition to operationalizing clear rewards and sanctions (Urmi, 2005; Malpezzi, 1990; World Bank, 1993).

The utilization of PPPs in the delivery of housing over the past years has occasioned strong reactions, which have mainly dwelt on its meaning, purposes, status and desired outcomes across sectors and countries. It has been widely held that housing supply and delivery assume social and political processes, which are in most cases complicated and require careful handling to succeed. Since independence, the supply and delivery of housing in Kenya has been vested on the government through its agencies and authorities, to achieve wide coverage, fairness in allocation and accessibility of the final products for all classes of people (Kimani et al, 2015; Robertson and Verger, 2012). PPPs can be used to some extent for policy support, provision of housing infrastructure, projects inspection within the housing development sector and management of the

already constructed housing stock, and some countries have succeeded in such objectives (Kimani et al, 2015; Hatcher, 2006; Ball, 2007; Bhanji, 2008; Saltman, 2010).

Application of PPPs in housing delivery has been accepted because it denotes new ways of project implementation, execution and innovative private sector participation methods. This increases the ability to address low-income urban housing shortages and can reverse the trend of the formation of slums and informal settlements (Ngángá and Kisimbii, 2018; Kimani et al, 2015; Koschman, Kuhn and Pfarrer, 2012; King, 2009; Hatcher, 2006). Available research shows that the concept is applicable for housing development and it has many advantages in addressing the question of affordable housing (Ibem, 2010; Bovaird, 2004; Mazouz et al., 2008). One group of researchers have supported the application of PPPs in housing development, noting the importance of the concept in addressing increasing demand (Ibem, 2010; Bantley, 1996; Ong and Lenard, 2002; Miraftab, 2004; Adams et al., 2006; Brown et al., 2006). On the other hand, other researchers have opined that PPPs are just variants of privatization, which disenfranchise the urban poor and aggravate the challenge of housing access for such groups (Ibem, 2010; Marava and Getimis, 2002; Scott, 2004; Bovaird 2004; Tomlinson, 2005).

PPPs have been embraced in the development of down-market urban housing because they offer efficient solutions in all angles of project developments through attraction and greater participation of the private sector (Zhou et al., 2013; Li et al., 2005). The objectives of using PPPs may differ across countries and regions, such that for example in the US, budgetary constraints drove the country to the application of PPPs, where community based private housing developers used creative alliances in financing housing construction for low-income earners. The same reasons have been cited for PPPs in housing in United Kingdom, India, Canada and Australia (Abdul et al, 2010). Other countries have considered innovation as a reason for the adoption of PPPs in housing development (Webb and Pulle, 2002), while the Andhra Pradesh Housing Board of India, considered design freshness in construction activities as a reason for adopting PPPs (Singaravelloo, 2001). However, in many other regions, risk transfer (housing risks can be caused by a change in housing demand, design, construction, completion timelines and obtaining necessary approvals) to the private parties is a major attraction towards PPPs for down-market urban housing. This is because risk transfer from public to private entities increases the level of commitment of the private bodies to the provision of required housing units through

PPPs (Dixon et al., 2005 and Grimsey and Lewis, 2005). In Australia, access to private sectors' funds, innovation, expertise, risks transfer and project cost savings, was the main motivation for the adoption of PPPs for down-market urban housing schemes (Coates, 2008).

Previous studies have demonstrated the extent to which PPPs in down-market urban housing have been successful in different countries across the world (Ong and Lenard 2002; Freut, 2005; UN –HABITAT, 2006b). Additional research looked at how the PPP frameworks can facilitate down-market urban housing developments in a country (Ibem, 2010), while other studies dwelt on the contributions of PPPs in addressing down-market urban housing challenges in different countries (Ibem, 2011a; 2011b; Adegun and Taiwo, 2011). According to Abdu and Kassim (2010) PPPs have been utilized in the delivery and development of down-market urban housing in several countries including Mexico, Pakistan, Egypt, India, South Africa, Bulgaria, Russia, China, Singapore, Canada, Thailand and United Kingdom (Kutana, 2017; Ahmed, 2017; Khaled Mohamed Al Shareem, 2014; Abdul –Aziz, 2011; Payne, 2000). PPPs have been used for housing delivery in developed and developing countries including UK, Canada, USA, Australia, India, Nigeria, South Africa, Malaysia, Ghana, Tanzania, Thailand, Vietnam and Philippines, Egypt, France and China (Kavishe & An, 2016; UN Habitat, 2011; Moskalyk, 2011).

The apparent successes in these countries in the application of PPPs, to increase their housing stock, has shown that collaboration between public and private entities through PPPs on down-market urban housing provision is the way to go since the current scenario does not favour low-income groups (Ahmed, 2017; Ukoje and Kanu, 2014; UN-Habitat, 1994; Pomeroy et al., 1998). It has been found out that countries have used PPPs to achieve different aspects of housing, for example, the Australian government utilized PPPs to deliver several social infrastructures related projects including housing delivery. Ireland used PPPs to develop transport infrastructure to connect to low-income urban household estates. Netherlands utilized PPPs to deliver urban regeneration programmes and social housing schemes to address low-income housing needs (Zhou et al., 2013; Sobuza, 2010; Ke et al., 2009).

2.9 Models of PPPs application in down-market urban housing

Once countries have decided to apply PPPs in financing down-market urban housing, they must define the model that they will use towards this end. The model agreed upon defines the relationship between the players more adequately. The selected model should address all the

project specifications from design, finance, construction, operation, maintenance, risk transfer, incentives, rewards and resource requirements to handing over to the public sector after the concession or contract time lapses. The model should operationalize the effective utilization of assets, human and financial resources, thereby realizing the good value of previously underutilized assets for enhanced economic development (Babatunde et al., 2012).

Many studies have been carried out on various PPP models that can be operationalized in the process of utilizing the concept (Ibem, 2010; Abd Aziz et al. and Manda, 2007; Abd and Hanif, 2006; UN Habitat, 2006b; Brown et al., 2006; Susilawati et al., 2005; Kinyungu, 2004; Otiso, 2003; Ong and Lenard, 2002; Payne, 1999 and Wylde, 1986). The experience of successful PPPs models in various countries has shown that for such projects to succeed, a variety of models, initiatives and strategies must be applied. The first model used in these countries has been the cooperative approach, which enables low-income urban households to access land and affordable down-market urban housing at reduced costs. This cooperation has sometimes involved the public, civil society organizations, non-governmental organizations and privately organized groups to deliver housing for low-income urban households. This is out of the realization that low-income urban households may not be interested in housing access only, but other services including infrastructure and land rights. Some of these households have been able to organize themselves into cooperative and savings societies through which they access land and affordable housing. This model can be applied in Kenya where many cooperatives possess large tracks of land, therefore, they can cooperate with the public sector, which provides housing infrastructure in such lands to increase the rate of housing development. The model has worked in countries such as South Africa, Egypt, India, Pakistan and UK (Payne, 1999).

Countries such as Malaysia, Zimbabwe and Malawi, have used the cooperative PPP frameworks crafted between the state, market forces and the general population to facilitate adequate and affordable low-income urban housing. This is done through a mixture of land offering and infrastructure, or some part financing provided by the public sector or vice versa (Manda, 2007; Kinyungu, 2004; Ong and Lenard, 2002). In Malaysia, the state and market lenders partner through strategic cooperation to provide housing to low-income urban households (Ibem, 2010; Abd Aziz et al., 2007 and Abd Aziz and Hanif, 2006; UN Habitat, 2006). In many other parts of the world, workable PPP cooperative models involve the public, private and sometimes Civil

Society Organizations (CSOs) joining forces to meet agreed-upon project goals to increase the supply of housing for the urban poor. Under such a strategic partnership, the CSOs can undertake community mobilization for a buy-in from the targeted beneficiaries, alongside playing the role of mediators and resolving conflicts (Ibem, 2010; UN Habitat, 2006; Kinyungu, 2004; Otiso, 2003). The public sector creates an enabling environment, which optimizes the performance of the private sector contracted for housing development. It can provide public land, housing infrastructure, long term financing options, low-interest rate regimes, adoptive building codes and zoning regulations. The public sector can also make it possible for housing cooperatives to thrive, hence contribute to housing construction and uptake (Ibem, 2010; Mukhija, 2004; Ogu, 2001; UNCHS, 1992). This then integrates the urban poor to the overall socio-economic development and competitiveness of a country (Ibem, 2010; Sengupta and Tipple, 2007; Lenard and Ong, 2002; Erguden, 2001 and Ogu, 2001; Payne, 1999). The cooperative model is responsible for providing 27 million Europeans with adequate housing, which also contributes to 22% and 8% of all housing developed in Sweden and Germany respectively (Republic of Kenya, 2017).

The second model for the utilization of PPPs in down-market urban housing is the application of special financing arrangements and housing credits, as noted by Moskalyk (2008) and Lomax (1996). This model has been applied in the United Kingdom, where construction of urban housing heavily relies on the private contractors' financing, which is at times supplemented by government budgetary support. Financial institutions provide capital for housing construction or in some cases, private consortiums raise funds through the capital markets, syndicated loans or housing bonds (Syracuse University, 2016). In the US, PPPs have also been utilized since 1992 to fund down-market urban housing, through the application of low-income housing tax credits, a model which led to the development of 80,000 housing units in 2002, compared to 30,000 from 1998 (Moskalyk, 2008; McClure, 2006; Wallace and Lea, 1996; Zhang, 1996). In Canada, the model was used under the "let's build" programme to develop down-market urban housing units in 2000, where the public and private entities jointly financed the programme (Griffin, 2004).

In Kuala Lumpur City of Malaysia, the private party provided financing and the public sector some land and other incentives necessary to unlock the housing challenge for housing urban squatters in 1983. The target was to deliver 80,000 housing units p.a., for three years, and to

boost economic growth by 2% per annum (Jamaluddin and Agus, 1997; Abdul, 2010). This shows that if applied well, various housing development and financing mechanisms can indeed lead to an increase in housing stock. This model can be applied in developing countries such as Kenya to address the huge housing supply gaps (UN Habitat, 2011; Sengupta, 2005; Lea and Wallace, 1996).

The third PPP model proposed for down-market urban housing is the Joint Venture arrangement, which has been used and recorded varying successes in many developed countries including the USA, Netherlands, UK, Ireland and Australia. It operates where public and private organizations jointly undertake to finance, own and operate the completed housing project, and where project risks are shared as per contractual obligations (UN Habitat, 2011; Deloitte, 2007; Deloitte, 2006). This model is preferred by most governments as it allows the state to make significant financial contributions which enable it to retain considerable control over project planning and development. The model also makes it possible for governments to use the private entities' resource bases and expertise needed for the construction and development of projects, and as such, the parties operate on an almost equal basis, which is a strong incentive for both parties. This incentivizes them to undertake the project in the best ways possible, as opposed to where a private party is assigned functions and acts without the necessary alignment of interests. This model also applies where private parties come together to develop projects, as exemplified by instances where a developer and owner of capital or land agree to develop housing units for sale or rental purposes (UN Habitat, 2011; Deloitte, 2006).

The fourth model has been defined by practitioners as the divestiture framework, where the private sector controls and retains the ownership of the assets and controls the investment, maintenance and operations of the developed housing facilities. The public sector in such an arrangement provides oversight and regulations (Perera et al., n.d). Many other models for utilization of PPPs have been developed, which include: Build and Transfers (BT); build –Lease- and Transfer (BLT); Build Operate and Transfer (BOT); Build Own Operate and Transfer (BOOT); Build Own and Operate (BOO); Build Operate Share Transfer (BOST) among other models. PPPs models for down-market urban housing can also take the form of management contracts and agreements between private and public sectors in delivering down-market urban housing (Kimani et al, 2015; UN Habitat, 2011; Perera et al., n.d).

2.10 Operational of Project Company – Special Purpose Vehicle

The available literature has shown that PPPs is a collaborative approach between the public and private entities whose aim is to deliver quality infrastructure. This relationship is best presented by a stand-alone business venture called the Special Purpose Vehicle (SPV), which is business-oriented. The SPV is a private limited liability project consortium that is created to develop the PPP asset as contracted. It is responsible for equity financing, design, construction, operation and maintenance of the developed assets (Gomez and Christey, 2016; Harris, 2013, 2003; Gunawasa, 2012).

The SPV seeks to leverage on the expertise and operational capacities of the private sector in addition to the regulatory and administrative capacities of the public sector. The SPV, therefore, has linkages to the public and private players, and other stakeholders (ADB, 2008). Effective delivery of services under a PPP arrangement requires that stakeholders possess a variety of skills to perform the tasks bundled and assigned to the private party (Whetten, 2005; Peterson and Van Fleet, 2004). The PPP contract has clearly defined goals and specifications detailing the nature of services to be delivered, which is in most cases done through the SPV (Robinson and Scott, 2009). The SPV acts as managing and operating company for the execution of projects, at the same time acting as the legal body that guarantees concessions from the public sector. This governs the arising relationship between government and other private party contractors undertaking the construction, operation and maintenance (Abu and Chen, 2010).

The SPV owns and operates the developed facilities, collects revenues to repay the finances advanced in the project development and other investments while operating and maintaining the facility to make marginal profits. Financing of the project is done through the SPV, it is central to the success of the project, and as such, parties sign contracts with the SPV for specialized services (Abu and Chen, 2010; Gatti, 2008; Tan, 2007; Merna and Smith, 1996). The general and typical model for an SPV is illustrated in figure 4 below.

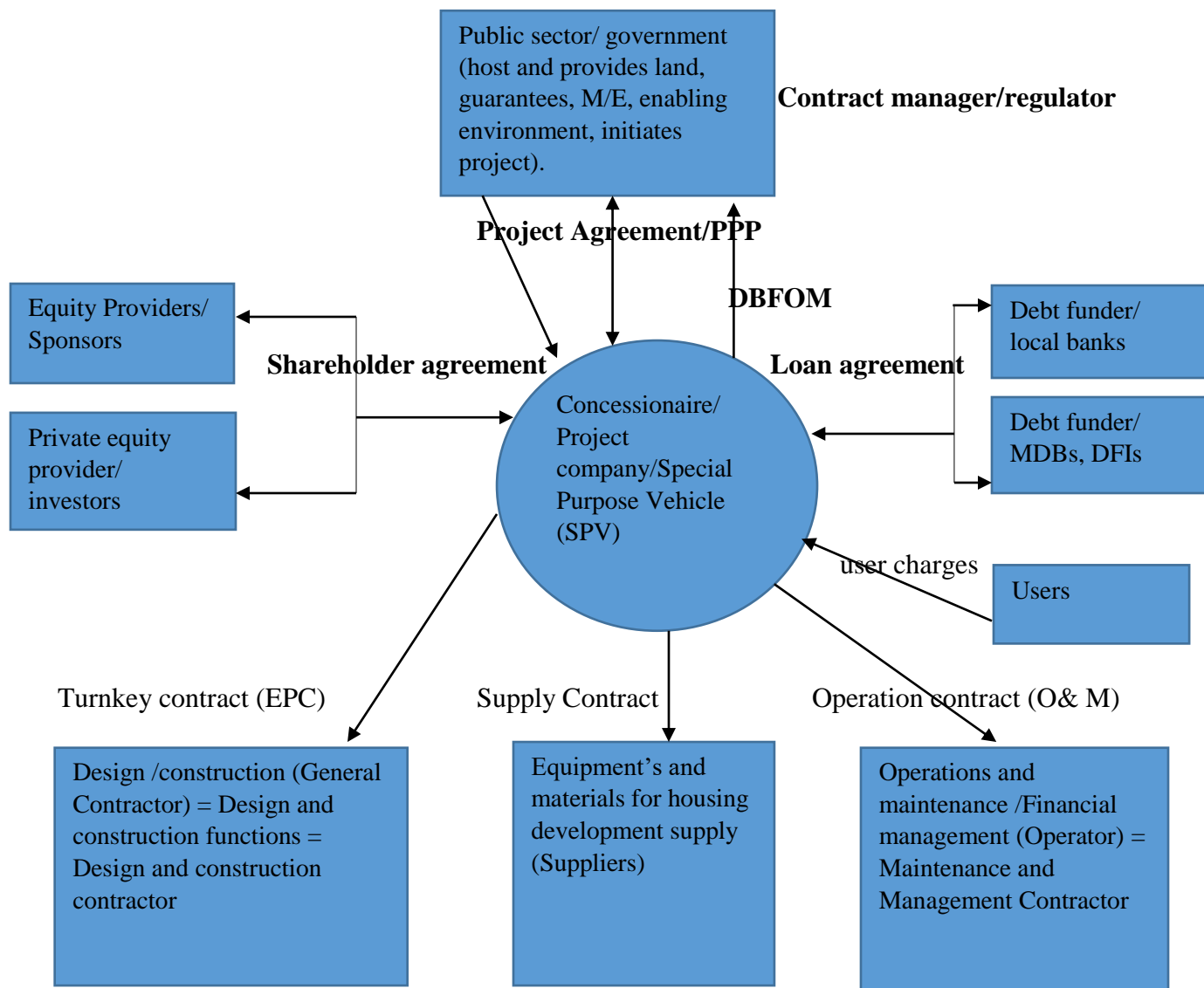


Figure 4: *The general model for the PPPs application in down-market urban housing.*

Source: Author (2020) with modification from World Bank PST Tool (2018); EAP3N Project (2009); Sajko, (2008).

2.11 Success factors for PPPs in down-market urban housing:

Successful application of PPPs requires five major success factors: the existence of effective procurement processes of the PPP project; good project implementation and enabling environment; public sector financing of the PPP project; favourable economic conditions in a country; favourable financial markets (Kutana, 2017; Ismail, 2013; Mathonsi, 2012; UN Habitat, 2011; Cheng, 2007; Li, 2003).

The first success factor is the existence of effective procurement of the PPP project, which should be done through a transparent process, competitive tendering and application of principles of good governance. The private party must have the requisite capacity and technical know-how as this will derive better services (Gandhinagar, 2015; Babatunde et al., 2012; Reserve Bank of India, 2008). The agency undertaking PPPs should be well prepared and committed to the whole process cycle, including a willingness to consult stakeholders, which enables the project to get the required support. It must undertake market sounding procedures, which enhances the quality of bids. The public sector will clarify the PPP models and contracts to be used in the project, which includes the identification of all activities to be meet the desired goals. The technical aspects of the project should be addressed before the project commences and all risks likely to occur in the project should be handled beforehand. This should go hand in hand with demand analysis and flexibility in contracts to cater to the low-income urban households (Karisa and Dantas, n.d; World Bank, 1999 and Shaw et al.,1996). There should be inbuilt mechanisms for joint management and operation of the project between the public and private entities in the contract (Kavishe & An, 2016; Kwofie et al., 2016; Babatunde et al., 2012; Li et al., 2005; Arthur et al., 2005).

The United Nations Commission on International Trade Law (UNCITRAL) came up with exemplary laws on procurement of goods, construction and services provision, which had been adopted in 1994 by the UN to address interests in public procurement (Tijani, 2014; United Nations General Assembly, 1995). Laws should minimize chances of corruption, and build the confidence of private players on adherence to such laws, while the public sector should ensure enforcement of the same. This assures the private players that contractual obligations will be honoured, thereby reducing the perceived risks and unpredictability of such projects (UN Habitat, 2011; UNECE, 2008).

The second success factor is the establishment of a good project implementation environment defined by the existence of a favourable legal structure (Kavishe, An and Kwofie et al., 2016; Gandhinagar, 2015). The bundling of functions, which are then assigned to the private party should be backed by law and based on the capabilities of the private entity (Arthur and LSE, 2000; Grant, 1996). PPPs can achieve intended goals where there exists proper legal, regulatory and institutional environment, appropriate technical skills to manage the transactions and

appropriate project design (National Council for Public-Private Partnerships, 2016; United Nations, 2008). In some cases, parties should identify the nature and type of modifications to be put in place on existing legal environments, to make the applicability of PPPs in project implementation fully acceptable across the board. This should be done by closely working with stakeholders to address legal bottlenecks, make clear the jurisdictions of various agencies and conditions to be met in the operationalization of PPPs (Adeyemi et al., 2015; Ogot, 2014; World Bank, 2012; Chan et al., 2010; Nubi, 2003; Delmon, 2009; Wang et al., 1999). Applicable taxation including labour taxes and permits should be granted for project execution. The laws should provide effective oversight, monitoring and evaluation, checks, and balances (UN Habitat, 2011; Institute for PPPs, 2009; UNECE, 2008).

Utilization of PPPs invokes contractual arrangements entered into by government agencies and private parties for a given period, hence the need for effective laws (Adeyemi et al., 2015; Egbewole, 2014; Amr, 2008). The PPP legal framework addresses matters pertaining to project feasibility, functioning of the PPP company, its powers, and terms and conditions for the transfer of public assets to private entities. The legal framework should also handle matters related to procedures, implementation, public administration issues, the required expertise and experience for delivery of PPPs projects. It should address matters pertaining to government financing through the provision of subsidies, commitments for long term public expenditure over the life of the PPP contract (Kelly, 2016; Kelly, 2016; Tijani, 2014; Yescombe, 2007). United Nations Commission on International Trade Law (UNCITRAL) has put in place the model law for privately funded infrastructural programmes for countries to give due considerations when using PPPs (PFIPs), which was established in 2003. The 58th Session of the UN General Assembly appreciated the role of PPPs and the need for the development of an enabling environment that encourages and attracts private sector investments for efficiency and transparency in the privately financed infrastructure projects (Tijani, 2014; UN Habitat, 2011; UNECE, 2008; UNGA, 2003).

Under the project implementation environment, projects must address the likely political risks in the execution of projects, because acts of omission and commission by governments have implications on developments in the housing sector. This is manifested through political actions and decisions which might attract or scare away investors because political actions have a

bearing on the business environment in a country. Activities such as revolutions, civil wars, strikes, discriminatory taxes, import restrictions, change in law, corruption, delays in project approvals, and mass expropriations may have a significant bearing on PPP projects as a result of the likelihood of occurrence of political risks (Ogot, 2014; Sachs and Tiong, 2007; Kapila and Hendrickson, 2001; Wang et al., 1999).

Political risks might be prevalent in developing countries like Kenya, where since the 1990s, multiparty politics have had elections held every five years as stipulated in article 136 (2) (a) of the Constitution of Kenya. This might affect the way PPP projects for housing are structured with political calendars in mind (Republic of Kenya, 2010; 2007; Delmon, 2007). There is a likelihood of public opposition to project implementation through PPPs within the political realms. This is because in such cases, the public might not be persuaded that the private sector can adequately undertake projects with public interests. There could be fears that through the PPP process, private sector players accumulate more wealth, while the target groups become poorer. Lastly, there are concerns that implementing projects through PPPs may lead to projects failure in cases where the private financiers withdraw mid-way (Ogot, 2014; Papajohn, Cui and Bayraktar, 2011; El-Gohary, Osman and El-Diaraby, 2006; Zhang and AbouRisk, 2006; Grimsey and Lewis, 2004).

PPP project implementation might involve activities like allocation of land, urban planning, creation of employment opportunities, cultural and environmental protection, which if not handled properly can lead to public opposition, cost overruns and project delays. Land allocation should address gender, sustainability, ecological and biodiversity protection and should respect the provisions of the constitution, more specifically articles 60 and 62 (4) on approvals for accessing such land (Ogot, 2014; Constitution of Kenya, 2010; Chan et al., 2010; Zhang et al., 2006; Li et al., 2005; Li 2003). Corruption and its impact on project implementation should be addressed because it leads to poor quality of construction works, poor selection of projects, and insufficient maintenance and operation, which affects the economic viability of projects. Transparency International ranks construction as the most corruption-prone industry (Ogot, 2014; Cockcroft, 2010; Kenny, 2009; Sohail and Cavill, 2008). Private parties undertaking PPPs might be afraid of the possibility of expropriation of their developed assets before recouping their investments. Kenya has established regulations under the Public Finance Management Act,

2012, which sets clear business and finance issues, while article 40 of the Constitution allows for free ownership of property such rights. This is a strong incentive for PPPs in the development of property (Ogot, 2014; Constitution of Kenya, 2010; Azzimonti and Sarte, 2007; Hill, 1998).

Lastly, the application of PPPs in housing development must be done within the confines of the environmental laws because of the specific ecosystems in which housing is developed. The global environment has been changing fast and its ability to support many human activities has been deteriorating (UN Habitat, 2006; World Bank, 1997). Environmental risks may invoke administrative or economic consequences of slow or catastrophic environmental pollution, which might arise during the construction phase of a project, and which might cause project sponsors to pull off from such projects. Major financing institutions have signed onto the equator principles (a set of social and environmental benchmarks for managing social and environmental risks and issues in project financing and development), which focus on environmental responsibility and safeguards. Such financiers might not finance projects that don't comply with the objectives of the principles, and the penalties for non-compliance with environmental legislation can have an immense negative impact on a housing project costs (Ogot, 2014; Delmon, 2009; World Bank, 1997; OECD, 1994).

In Kenya both the constitution and the Environmental and Management Coordination Act (EMCA), of 1999 and as amended in 2015 demands thorough adherence to the environmental laws and obligations for reporting and mitigating environmental negative impacts. Housing development necessitates application for Environmental Impact Assessment (EIA's) studies to guide in the compensation and mitigation of any negative impacts of the project. During project execution, social-cultural heritage aspects might affect the implementation of housing PPPs (Constitution of Kenya, 2010; EMCA, 1999 & 2015; Ogot, 2014; Delmon, 2009; World Bank, 1997; OECD, 1994).

The third success factor for PPPs is the existence of public financing for the projects through some form of public sector guarantees to the private developers. The public sector must offer financial, economic, social, economic and political benefits, and other multi-benefits objectives in executing the project at hand (Babatunde et al., 2012; Hardcastle et al., 2006). This is because PPP projects are risky, and as such, the ability to adequately identify, quantify and allocate risks to the party best suited to handle them, is central to successful PPPs. The EU systems of

Accounts lists three major types of risks inherent in PPP projects as the construction risk, exemplified by late delivery, cost overruns and technical inadequacies of the applied technologies. First, availability risks which are exhibited by the failure of the private party to deliver as per the agreed standards and specifications, volumes and quality. Second, demand risks which are brought about by changes in the projected demand, variations in business cycles, new market trends, direct competition, or obsolete technology (Moszoro and Magdalena, 2011; Li et al., 2005; Quio et al., 2001; Rockart, 1982). Private entities always look for guarantees and assurance for their return on investments, which the public sector is obligated to provide in some instances for successful PPPs (Gandhinagar, 2015).

Under the Public Finance Management Act (2012), the Kenya government enacted the Government Support Measures Policy (GSMP, 2018), to offer a variety of guarantees and support for private investments, which ranges from letters of comfort and support, sovereign guarantees like minimum revenue guarantees, market/volume guarantees, partial risk guarantees, credit guarantees, contract guarantees, foreign exchange guarantees to refinancing guarantees. It provides for binding undertakings and other support measures by the government (Republic of Kenya, 2018, 2012; 2010). Failed PPP projects in Asia, Malaysia, Indonesia and Thailand resulted in the existence of high risks and limited incentives from the public sector; while successful countries in the application of PPPs including the UK, France, Colombia and Brazil used well-structured incentive arrangements (Syracuse University, 2016; Ribeiro and Dantas, n.d).

Countries which intend to use PPPs must have their financial sector reformed to enable the stock market to create an enabling environment for ease of access of finances and financial services, attractive financial market; capacity for governments to provide such guarantees to make projects viable (Ogot, 2014; Chan et al., 2010; Xenidis and Angelides, 2005).

The fourth success factor for PPPs is the presence of favourable economic conditions (micro and macro-economic conditions), which include sound fiscal and monetary policies in a country intending to apply PPPs for down-market urban housing (Babatunde et al., 2012; Hardcastle et al., 2006). PPPs are successful in delivering services because of the probability of applying adequate incentives in the achievement of the project goals and objectives. The fact that the private party is in charge of project design, finance, construction, operation and maintenance for

a long duration is a strong incentive to introduce strong measures in the project design, finance, construction, operation and maintenance. This has the effect of delivering better and quality housing units, which are affordable because the private party becomes innovative in the project execution as it seeks to eliminate any design flaws typical of many government housing programmes. This is because of the penalties inbuilt in the contract for underperforming or failure to stick to the specifications (Syracuse University, 2016; Ribeiro and Dantas, n.d).

The fifth success factor for down-market urban housing PPPs is attributed to ready and available financial markets for the goods and services being developed through the PPP process. There should exist ready, suitable and adequate financial markets to either finance or guarantee uptake of the constricted houses (Babatunde et al., 2012; Hardcastle et al., 2006). PPPs will thrive where there are functional and working financial markets (Li et al., 2005; McCarthy and Tiong, 1991; Ankitoye et al., 2001).

2.12 The Status of the Application of PPPs in Kenya (PESTEL Analysis).

Application of PPPs in Kenya is supported by many international treaties and conventions which has led to increased interest in the concept. The Constitutive Act of the African Union (AU) of 2000 supports PPPs through article 3 (e) and (k) that encourages international cooperation in all fields of human activity to raise the living standards of the African people, including housing development. The East African Community Treaty of 2006 in article 5 (3) (b) and (g) and 6 (f) seeks to strengthen and further make effective cooperation in all agreed fields for the equitable economic development aimed at raising the standards of living, and to improve the quality of life. It targets to do this through strengthening partnerships with the private sector to achieve sustainable socio-economic and political development. Application of PPPs in Kenya, therefore, complies with international, African and regional legislations and blueprints hence accelerate its development in the process.

Kenya has increased its application of PPPs since the enactment of the PPP Policy, 2011, and Act in 2013, driven by the huge demands for infrastructure, and socio-economic and political development envisioned under Vision 2030 development blueprint. The PPP unit in Kenya's database shows that twenty-five PPP projects with a total investment commitment of US\$ 9.3 billion attained a financial closure between the year 1990 and 2014. As of January 2019, the country had 77 projects categorized as of national priority, and have been approved by the PPP

committee established under the PPP Act, 2013. 18 of these projects, representing 23.4% are on housing for university students, colleges, civil servants and police. The majority of the projects lined up so far are in transport, energy, education, housing and health (PPP unit Disclosure Portal, 2019). The PPP project pipeline in Kenya is illustrated in table 2 below.

Table 2: PPP projects at various stages after the PPP laws were established

No	Stage of the PPP project	No. of National Government Projects	No. of County government projects	Total no. of projects per stage
1	Projects at financial close (construction stage) example Lot 33 of road annuity programme, development of the Lamu – Garissa – Isiolo highway	1	0	1
2	Projects at commercial close (PPP contracts signed) example Likoni cable car	6	0	7
3	Projects with contracts approved – to be signed any time	3	0	3
4	Projects at contract negotiations (contract not yet signed) example the construction of 4,685 police housing units; Moi University, Embu university, South Eastern Kenya University student's accommodation hostels with a combined bed capacity of 24,400.	10	0	7
5	Projects in tender/procurement example Nairobi- Nakuru –Mau summit road	6	1	7
6	Projects ready for tender example Nairobi Mombasa dual carriageway toll road project	4	1	5
7	Projects with completed feasibility studies reports, pending submission for approval example development of Murang'a water supply project	2	1	3
8	Projects at feasibility study stage (ongoing studies) development of the 300 bed capacity hospital at KU	13	1	14
9	Projects at proposal stage example the University of Nairobi student hostels	18	7 example the Nairobi city county solid waste management project; the development of	25

No	Stage of the PPP project	No. of National Government Projects	No. of County government projects	Total no. of projects per stage
			Muguga Agri-city by Kiambu county	
10	Projects awaiting guidance from contracting authority example Nairobi Bulk water supply	5	0	5
Total		65	11	77

Source: PPP unit portal, 2020.

Successive budget statements since the financial year of 2018/19 heavily proposed to utilize PPPs to deliver a variety of services and infrastructure, with projects such as roads annuity programmes, six projects for the Lamu coal power, Geothermal power in Menengai, and the university hostels programmes in Kenyatta University, Embu, South Eastern and Moi among others being lined up for development through the concept. PPPs in down-market urban housing too can benefit from this financing framework with some adjustments and restructuring going forward (Republic of Kenya, Budget Statement, 2019& 2018). Kenya has a well-established legal and institutional framework for the application of PPPs, including:

a) Public Private Partnerships Policy, 2011, provides a rationale for the application of PPPs in supplementing the government's efforts of meeting its ambitious development goals under Kenya Vision 2030. It recognizes the huge funding requirements for the country, and the need to embrace the application of PPPs to address the financing deficits, through workable and bankable PPPs. Such projects will attract private players in the financing, building, and operating infrastructure services and utilities, including the underdeveloped low-income urban housing (Public Private Partnerships Policy, 2011).

b) Public Private Partnerships Act, 2013, legalized private participation in the infrastructure financing, development, construction, operation and maintenance of infrastructure assets to serve the citizenry through concessionary contractual arrangements or other legally binding methods. The act establishes institutions to undertake PPPs legal, regulatory, monitoring and supervision prospects, such institutions include the Public Private Partnership Committee, whose function is

to ensure that projects are done in line with applicable legal provisions in the country (Public Private Partnerships Act, 2013).

c) **Urban Areas and Cities Act, 2011**, provides for the application of PPPs in urban areas through section 33, which could include down-market urban housing (Urban Areas and Cities Act, 2011). **The County Governments Act (2012)** also provides for the application of PPPs within the jurisdiction of counties under which Kenya is divided into as per section 6 of the constitution. Section 6 (3) provides that counties may enter into partnerships with public or private bodies as per the provisions of any laws relating to PPPs (County Governments Act, 2012).

d) **The Public Private Partnerships Regulations 2009** anchored the practice and use of PPPs in the country before the commencement of other laws on the application of PPPs (PPP Regulations, 2009). **The Public Private Partnerships Regulations, 2014** operationalized the application of PPP Act, by enhancing the functions of the PPP unit and nodes. It also strengthened the criteria for the recruitment of experts and provided for the establishment of the project facilitation funds envisaged under section 68 of the PPP Act 2013. Such funds are critical for urban housing under PPPs (PPP Regulations, 2014).

e) **Project Facilitation Fund Regulations 2017**, has been enacted to provide support to contracting agencies third party costs during the preparation of projects, including payment of transaction advisory services, viability gap financing (VGF) and providing a source of liquidity to meet any contingent liabilities arising in the course of preparing or launching a project. It can be used for undertaking sector diagnostic reports and studies, project proposals, feasibility studies, supporting tendering activities among other connected uses. Such a fund is critical in making the provision of down-market urban housing viable through PPPs.

f) **Draft PPP amendment Bill 2017** expands the meaning of contracting authority to national and county governments, clarifies the procedures for the utilization of PPPs hence aligns the PPP procurement process with the provisions of the Public Procurement and Asset Disposal Act, 2015(Republic of Kenya, PPP amendment bill, 2017).

g) Draft County PPP regulations 2015, aims to establish the county level PPP institutions and structures in line with the structures at the national level and provides processes through which counties must follow to utilize PPPs. The **Draft PPP Petition Regulations 2015**, sets the rules and grounds for operationalization of tribunal to handle complaints that arise from the application of PPPs. **Draft PPP Manual 2015** provides PPP process templates and tools to guide the practitioners and governments desirous of applying the concept. It details the value drivers and reasons why Kenya is adopting PPPs under the five guiding principles of: value for money; affordability; commercial viability; manageability; acceptability.

h) National Land Policy of Kenya (2009) clause 3.3.3.5 parts e and f encourage public authorities to utilize joint ventures with landowners in peri-urban areas and employ land re-adjustment models. It obligates the government to provide land for housing development for the poor at affordable rates (Republic of Kenya, National Land Policy, 2009).

i) National Housing Policy for Kenya, 2016

The policy notes that low-cost housing will be developed through mobilization of housing finance from the public and private sectors, local communities and international agencies. The complex collaborations envisaged can be actualized under PPPs, through the application of incentives, affordable building materials and technologies, and joint ventures, which will increase housing development (Republic of Kenya, 2016).

j) Housing Bill 2016 Section 3 provides for mobilization of resources for provision of housing development, by encouraging private sector financing for enhanced construction of affordable and down-market urban housing. Section 28 provides for the establishment of the National Social Housing Development Fund that shall be utilized for facilitating access to affordable, social and down-market urban housing including urban housing (Republic of Kenya, 2016).

k) National Urban Development Policy (2016) provides for new ways of managing the urban areas, including enhanced urban planning, key in availing land for housing development and land banking, as per article 166 of the Constitution of Kenya (2010). Chapter eight highlights the

challenges of urban housing. It recommends the application of PPPs among other initiatives in housing development (Republic of Kenya, 2016).

2.13 Conclusion on circumstances for PPPs applicability for down-market urban housing in Kenya

The International Monetary Fund (IMF, 2006) and other stakeholders have pointed out five major circumstances for the excellent application of PPPs. They have listed the existing level of constraints that the government faces in promoting PPPs: the existing political environment; the market conditions and the prevailing macroeconomic issues; the existing institutions and their quality including the applicable laws and regulations; the past experiences such countries have had with the application of PPPs. These five major circumstances elaborate further on the principles tackled under the PESTEL analysis for PPPs application in Kenya under section 2.12.

Under the circumstance of constraints facing governments, where it has been observed that PPPs allow the public sectors to undertake projects which were unaffordable to the public sector before the involvement of the private players. PPPs have been touted as one of the most effective ways of filling the existing infrastructural financing gap, as a result of limited capacities of government against the overriding and increasing demands from citizens. Application of PPPs allows governments to leverage greater financial capabilities and resources from the private parties, which increases its abilities to implement many projects including social projects, which might not have been commercially possible before (IMF, 2006; Kopp, 1997; Williams, 1992). Many countries in the world have faced financial crises in the recent past, alongside the emergence of parliamentary regimes, which have been open to foreign private investments in infrastructure. These conditions have encouraged robust and market-oriented policies and programmes, and such countries facing huge financial deficits hence debt burdens are more inclined to the application of PPPs than others (IMF, 2006; Glasser, 2001).

The second circumstance under which PPPs are likely to operate is the political environment of countries, where states which are ethnically divided may require more infrastructure outlays to address the diverse preferences of such groups. It, therefore, becomes difficult to address such deficits from the public pulse necessitating mechanisms that lead to

pooling of resources for common public projects (Alesina, Baqir and Easterly, 1999). Increased levels of government accountability through adequate and modern political governance have made it mandatory to implement a diverse range of projects. These challenges have necessitated the operationalization of market-oriented policies, reforms and application of diverse principles, which further leads to the operationalization of political systems which are supportive of the proposed interventions including PPPs (Forrer et al.,2010; Corridor Watch organization, 2008; Hoitsma, 2007; Wettenhall, 2007; Kent and Harmer, 2004; Hastings, 1999). PPPs are effective in countries with stable political environments because the utilization of the concept makes many actors work together in project delivery. This affects the existing power distribution matrix in a country, hence political implications, which leads to changed roles for actors, that must be defined through new policies and practices in infrastructure delivery (IMF, 2006; Kent and Harmer, 2004; Buse and Waxman, 2001).

The greatest aspect of the influence of politics on PPPs is that civil conflicts might arise if services and assets developed under PPPs fail to achieve expectations. This may also have ramifications for the ruling parties and elites and hence deeming their chances of re-election. Successful PPP projects depend on strong political backing, which must be structured in such a way that they are not affected by the electoral cycle of a country (Forrer et al.,2010; National Academies Roundtable, 2006).

PPPs for down-market urban housing succeed where the decision to adopt its application is made at the highest policy-making level. There is need for political vision and support for the application of PPPs because political barriers can reduce the bankability and appeal for projects proposed to be developed under the model. The internal and external political environments in a country including its bureaucracy are key to the successful application of PPPs. The economic and political philosophies espoused by regimes make them either strong or weak candidates for PPPs (Minnie and Johan, 2011; OECD, 2008; Hodges, 2003).

The third circumstance is the prevailing market conditions and macro-economic policies applicable in a country desirous of applying PPPs, which allows for the application of incentives to attract the private players. This is because infrastructure development has a high

cost implication at the beginning and requires time to generate revenues for investors. The market conditions in a particular country have a strong bearing on the applicable incentives and risks inherent in such projects. The demand for services and infrastructure and the rate at which they can be provided is therefore determined by the size of the market in a country and the applicability of PPPs thereon (Ehrhardt and Irwin, 2004; Thomsen, 2005). Macro-economic conditions are central in the operationalization of adequate tariffs and taxes, development of a track record in honouring and implementing successful PPPs. The public sector should operationalize and obtain favourable sovereign debt ratings, which has a direct bearing on the level of private sector engagement in PPPs. Applicability of PPPs is therefore common where the market, demand and purchasing power aspects are large enough. The model is successful where the country has a credible, predictable, stable macro-economic conditions with vibrant markets for adequate incentivization of the private sector (IMF, 2006; Dailami and Klein, 1997).

The fourth circumstance is the prevalence of good institutions that have the necessary qualifications and also the existence of a good legal system, which has a bearing on the success of PPPs. PPP arrangements are by nature contractual hence their sustainability depends on the existing legal and regulatory environment, shaped by the quality of its institutions. Strong institutions and effective application of the rule of law are critical to secure adequate and bankable PPPs for down-market urban housing in a country. The effectiveness of legal institutions has a stronger impact on the extent to which external financing for PPP projects can be availed because these systems protect the private sector investments. These systems will be important in getting the approvals, clearances and administrative actions to fast track application of PPPs (Boeva and Vassileva, 2010; IMF, 2006; Pistor, Raiser and Gelfer, 2000).

The fifth circumstance under which PPPs operate is based on the past experience of a country in the application of the model, including the expertise possessed by the private entities within such a country. Countries must remove financing uncertainties that prevent private banks from lending to such projects (Boeva and Vassileva, 2010). A well experienced private sector can take advantage of the PPP procurement opportunities, through which they exercise power and influence for the delivery of public goods and services in the public sector

(IMF, 2006; Kent and Harmer, 2004). This relationship between the five unique circumstances is highlighted in figure 5 below.



Figure 5: Diagrammatic representation of the PESTEL analysis of PPPs application in down-market urban housing in Kenya

Source: Author's construction (2020) borrowed from Johnson et al., (2005).

2.14 Opportunities offered by the PPP mode of procurement

The procurement of PPPs projects is different from the normal methods of awarding contracts and tenders. Procurement under PPPs focuses on the inherent innovation, flexibility, improved risk identification, quantification and management of the project, hence it is expected that better housing units can be provided more cost-effectively. The procurement for PPPs is based on the accruing synergies between the public and private sectors, leveraging the expertise and technological innovation possessed by the private sector. This is achieved through contracting out to the private sector, where such partners are strategically selected and project objectives aligned by sharing responsibilities. Under PPPs, parties are more committed to project goals than is the case for normal procurement, and the public sector shifts a lot of responsibilities to the private partner (Alexandru, 2015; Savas, 2000). The application of PPPs as a procurement method has benefits to the public and private entities in the contract.

2.14.0 Opportunities for the public sector

The reason why scholars advocate for the application of PPPs is that the model offers many benefits when applied in infrastructural and down-market urban housing provision. Eight major benefits accrue to the public sector when it applies PPPs in the development of housing. **The first one is that the concept helps in improving the overall quantity and quality of infrastructure and down-market urban housing** because the projects are completed on time and budget as opposed to conventional financing by the government, which is fraught with many delays and cost overruns. PPPs enable the public sector to acquire financial discipline and fiscal capacities to ensure that projects leverage commercial approaches to development. PPPs allows the government to retain strategic control of the infrastructure asset and services as opposed to privatization. This then increases the overall quality of houses developed and also the quantity for use by citizens (Bothale, n.d; International Project Finance Association, 2015).

Secondly, PPPs have been found to offer multiple benefits when compared to the traditional project delivery methods of Design-Bid-Build (DBB), which includes improved project costs. The partners in a PPP venture checkmate each other implying that all project costs are justifiable. It leads to increased instances of cost certainties in project execution because all project activities and design parameters are agreed upon at the commencement or planning stages, which makes it easy for the private party to factor the same in the project development. In

normal procurement, operation, functionality and maintenance costs are often ignored. PPPs enhance project schedule certainty and the overall project quality because partners have agreed on project specifications in the beginning, which eliminates the omission of certain project aspects important in housing functionality and development (Syracuse University, 2016).

The third opportunity to the public sector is the improved service levels and achievement of key performance indicators (Partnerships British Columbia, 2003). This arises when parties to the contract perform aspects of the project that they well acquainted with and as per their strengths. The public sector agencies are best suited to undertake policy formulation and service delivery standards, while the private players are best left to handle project design, finance, construction, operation and maintenance. PPPs improve service delivery levels by infusing cost-effectiveness in the public sector delivery of goods and services, occasioned by utilizing the innovativeness, experience and flexibility of the private entity. Public procurement is landed with inefficiencies and bureaucratic red tapes, which limits the application of innovation and up to date technologies. This has the effect of making the final housing units expensive for low-income urban households (Partnerships British Columbia, 2003).

The fourth opportunity to the public sector is the introduction to the overall economic opportunities, as a result of the introduction of efficiency, effectiveness, risk transfer, cost certainty and innovation. These benefits are actualized by the deliberate transfer of risks from the government to the private parties, who have been found to assume better control of production systems of infrastructure. Private players effectively use little resources available to maximize on the project delivery attributes of time, budget and technical specifications hence increasing economic opportunities. Private entities can achieve between 15-30% cost savings compared to the public agencies saving measures because they operate within agreed specifications, deadlines and schedules (IISD, 2011).

The fifth benefit to the public sector is the actualization of minimal cost overruns in a PPP backed project, which oscillates near 1.1%, compared to established cost overruns of 15% in normal procurement methods. Projects under PPPs are concluded on schedule and budget because the private party is highly motivated to complete the projects on time and recoup profits

for the next offering. PPP projects are completed ahead of schedule by an average of 3.4%, while public projects' average completion time is 23.5%. It was found in the UK, before the introduction of PPPs that 70% of projects were completed behind schedule, and only 24% of PPP projects ran behind schedule. Application of modern technology and innovations will make housing units be developed for long term performance and functionality without design flaws. This ensures high-quality housing and related infrastructure products with little maintenance costs, hence good value for money (Syracuse University, 2016; IISD, 2011).

The sixth opportunity to the public sector in the application of PPPs is that the model leads to a reduction of risk exposure to government. This is achieved by transferring the inherent construction, financing, operation and maintenance risks to the private party, who in most categories of risks are more suited to handle them. The art of transferring risks to the private party ensures that the success of the project is guaranteed to generate revenue. Economically, if the asset developed faces any economic failure, the public sector is protected against such since it is in the domain of the private players (Mohamed, 2017; Syracuse University, 2016).

The seventh opportunity accruing to the public sector in applying PPPs is that the government is enabled to deliver capital projects faster by utilizing the flexibility and increased access to resources by private entities. PPPs improve budget certainty by defining project activities beforehand, and it leads to increased utilization of assets, which are in most cases underutilized. This situation creates higher levels of services offered, greater accessibility of the service to the citizenry and overall reduction of the occupancy costs due to the public entities (IISD, 2011).

The eighth opportunity to the public sector is that PPPs enable governments to undertake a whole life project cycle concept in the planning and budgeting process brought about by the adoption of long term contracts. A company that enters into a PPP arrangement for twenty years has to include maintenance costs on its contract, which ensures that the facility constructed remains in a good condition for the whole life of the contract. In contrast, many budgeting and planning processes in many countries are done for three to five years, which may see some maintenance funding deferred to the next available planning session. Such a practice has the

effect of compromising the value and quality of the facility which has a bearing on the level of services offered (IISD, 2011; Partnerships British Columbia, 2003).

2.14.1 PPP Opportunities for the private sector

PPPs have many opportunities and benefits to private entities and that is why they have sought to enter into such contracts. There are five major benefits to private players who enter into PPP arrangements. The **first opportunity is that the private entities have access to an expanded market**, hence a bigger slice of the business opportunities offered under PPPs. Through PPPs, the private entities have access to greater opportunities to generate their profits because of assuming bigger responsibilities of developing public assets. The private players have access to projects which are almost risk-free or with low default rates for long periods, as the government has a high probability of honouring its contractual commitments. Such opportunities for long term contracts may not be possible outside the PPP frameworks (Minnie, 2011; Investec, 2006; Partnerships British Columbia, 2003).

Second, the private parties under PPP arrangements can gain more experience and expertise in the application of the model, which is gaining more currency globally. This enables the private sector to expand their knowledge and expertise beyond their country's jurisdiction. This expertise can be leveraged in the future to create more business and commercial opportunities locally and internationally, due to the accrued track record of undertaking successful PPPs. For example, in the early phases of the application of PPPs, the British private entities gained a lot of experience, which they used to get overseas contracts (Minnie, 2011; Timms, 2006; Partnerships British Columbia, 2003).

Third, the private parties in a PPP arrangement increase and improve their public image and reputation. Private players can use their positive collaborations with the public sector to improve their ratings and public image, which increases their chances to access bigger projects, and which, therefore, increases their profitability. This enables them to attain a competitive edge over others in project procurement, as exemplified by Jeffares and Green Consulting Engineers, ARCUS GIBB and Environ Fill group who used partnerships with the public sector to gain bigger contracts in South Africa and Africa as a whole. The strong collaborations and partnerships can be leveraged in the future for greater access to contracts and tenders thereby

increasing the contract portfolios of the private entities involved (Minnie, 2011; Environ Fill, 2008; Jeffares and Green Consulting Engineers, 2006; Arcus GIBB, 2006; Partnerships British Columbia, 2003).

Fourth, through PPPs, the private parties can access greater levels of resources, statutory powers and legitimacy in their operations which gives them access to the much sought legitimacy to continue making profits and win more tenders. The close working relationship envisaged under PPPs allows the private players to access the democratic approval through sustained stakeholder engagement, which enables private players to deliver services in sectors where they would not traditionally have access to like down-market urban housing. Through PPPs, private entities legitimize activities which it has hitherto provided in areas like slums and informal settlements. By working with public entities, the private entities fulfil part of their corporate social responsibility, which makes them look responsible. This allows them to attain approval which ensures the sustainability of their businesses for the foreseeable future because of public support (Minnie, 2011; Timms, 2006; Partnerships British Columbia, 2003; Plummer, 2002; McQuoid, 1993).

Fifth, through PPPs, private players gain more financial benefits because by partnering with the public sector, they can generate business opportunities with a higher degree of certainty because of a secure public contract (Collin and Hansson, 2000). The revenue stream under a PPP deal, which comes through user fees and part financing is secure and lasts for many years. The Private parties to a PPP contract gain more profits from infusing efficiencies in a partnership arrangement as a result of their capacities in managerial, methodological, monetary aspects in executing projects (Minnie, 2011; Partnerships British Columbia, 2003).

2.15 Challenges in the application of PPPs in down-market urban housing

The application of PPPs in infrastructure and housing development has been faced with seven major challenges which might discourage players from its actualization. **The first challenge is economic, political and institutional difficulties**, which arise from the likelihood of strong political resistance on the application of PPPs for service delivery. The major concern for the application of such a model is the likelihood of the final product to be out of reach of the target

groups. Policymakers and politicians need to be convinced that PPPs can work effectively for them to support the formulation of laws for a robust application of the concept in urban housing (Ahmed, 2017). The challenge for governments is the need to keep the public informed throughout the PPP project lifecycle. This ensures public buy-in to make the projects sustainable (Syracuse University, 2016; UN Habitat, 2011; Zhang, 2005).

The second challenge is PPP legal and regulatory weaknesses of most countries in the application of the concept, which hinders the effective application of managerial, financial mobilization skills, technology and efficiency in operations. These principles are fundamental for the operationalization of PPPs. Adequate laws are necessary for the definition of various aspects of the projects and operationalization of legal matters for effective and unambiguous application in the various sectors (Ahmed, 2017). The lack of adequate laws to operationalize application of modern skills, capacities and experience in the utilization of PPPs have contributed to inappropriate application of PPPs and hence the limitation of accruing benefits to the economy. Adequate laws are necessary to permit application of competition, solid application frameworks, innovation, and flexibility in project structuring and development (Syracuse University, 2016; Zhou, 2013; Wang et al., 2012; UN Habitat, 2011; Ho, 2006; Corbett and Smith, 2006; Li et al., 2005).

Many PPPs projects have been executed using sectoral guidelines without comprehensive and uniform application procedures and manuals or the existence of a centralized organization to deal with PPP projects. The existence of a centralized PPP unit, for example, is key in formulating national guidelines, assisting the contracting agencies in procuring services under the model and promoting balanced partnerships. This will eliminate instances where PPPs are seen as tools for quick fixes in the reduction of government financial constraints, whereas it should be seen as a tool through which effective method for overall quality, quantity and housing stock improvement and service delivery can be achieved (Syracuse University, 2016; Zhou, 2013; UN Habitat, 2011; Wang et al., 2010; Ho, 2006).

The third challenge is that not all projects can be implemented through PPPs in a country because evidence shows that in some instances, infrastructure projects provided through

PPPs may suffer from poor public accountability, reduced competition and development of monopolistic tendencies. This is despite the need for accountability, competition, and reduction of monopolies being at the cornerstone for application of PPPs, liberalization and privatization (Ahmed, 2017; Syracuse University, 2016; UN Habitat, 2011). To resolve such challenges, there should be adequate frameworks to incentivize the private sector to enable them to take a leading role in the investments required for housing development. This is done by being innovative, optimizing the achievement of results to address the inherent gaps, including the provision of low-income urban housing (IISD, 2011).

The fourth challenge is the level of government financing and support measures available from the public sector. The ability to finance part of the PPPs projects by the government is a major threat for countries since the emergence of the global financial crises of 2008, which reduced the available financing levels of urban infrastructure projects. These financial crises have led to a tightening of financing regimes in countries, which might affect housing PPPs among other infrastructure demands (Ahmed, 2017; UN Habitat, 2011; Murphy, 2009).

The fifth challenge is the likelihood of differing goals and objectives of the public and private partners in a PPP project. On one hand, the private entities focus is on the economic outcomes and profits, while the concern for the public sector is effective service delivery within the confines of public interests, appropriate regulations and risk minimization. The differing goals can precipitate conflicts and frictions between parties, which breeds mistrust between them and poses challenges for healthy relationships throughout the project cycle. This is not the best practice, especially in sectors like low-income urban housing where the application of subsidies and continuous public sector support is mandatory for guaranteed uptake (Ahmed, 2017; UN Habitat, 2011).

The sixth challenge is a lack of experience and capacity for the PPP implementation, including limited exposure to contracting and transacting PPPs in a country. Partners may lack financial, technical, legal and political acumen central in driving successful PPP projects, and at the same time, many countries lack a pool of PPP negotiators and transaction advisors. These challenges could be worse in countries that are emerging from crises, wars, or democracies

(Zhou et al., 2013; UN Habitat, 2011; Wang et al., 2012; Palmer, 2009; Ho, 2006). Inadequate experience in the application and structuring of PPPs may lead to design errors and implementation attributes. This is because PPP contracts pose other difficulties in the applicability quest (Syracuse University, 2016). These challenges can be addressed by building a country's capacity through adequate planning, management, accounting and budgeting, including contingent liabilities and other transactional costs. There should be planning for adequate social, healthy and environmental safeguards throughout the development process (Ahmed, 2017; Department of Economic and Social Affairs, UN, 2016).

The seventh challenge is the application of unsound governance systems in PPPs for developing down-market urban housing. The environmental and social safeguards issues concerning environmental degradation in the process of applying PPPs in project financing have a strong bearing on governance aspects of a project. Many governments do not have strong environmental and social safeguard laws for incorporation in their project cycles, which might face public rejection, opposition and costly lawsuits (UN Habitat, 2011; MDG's, 2000; SDGs, 2015; UNCECE, 2008; UK Department of Transport and Green PPP Guide, 2003). Lack of good governance in projects has a strong bearing on transparency and accountability in implementation, financing, and other agreements in PPP projects. Such poor environmental and social governance considerations in projects of PPPs nature have a bearing on the success of the project or its failure. Major international financiers and developers are keen to ensure they fund projects which are sustainable and have no conflicts with the society and environment (Ahmed, 2017; IISD, 2011).

In conclusion, PPPs do not imply a monopoly in infrastructure and service delivery as countries must overcome many challenges before the model can be used effectively. Opponents of PPPs have highlighted four claims which have been made against the application of PPPs. The first is that the claim that PPPs are a cure for budgetary constraints is more of a political decision than a technical one. This is because governments can adjust or increase taxes to raise required financing levels for infrastructure, and even in cases where the provision of infrastructure has been handed over to private parties, governments have to be involved financially in some ways. This is exemplified in government pays PPPs and taxation necessary to raise budgetary support

for PPPs. This means that the public sector funds PPPs just as it does for other types of projects (Suter and Cavelty, 2009; Hall, 2008).

Secondly, they have pointed out that transferring risks to the private party might not be wholly possible. This is because some of the projects transferred to the private entities in terms of risk management may end up costing up to 25% of the normal projects. Thirdly, the claim that the private sector has a monopoly of efficiency or has a higher ability for innovative financing might not be entirely true. This is because, in some types of projects, the public sector might have the ability to obtain cheaper financing than the private sector since the former can borrow funds at concessionary rates more easily than the latter. It has also been pointed out that the public sector has a repository of the best brains for project execution, but proponents agree with PPP advocates that this pool of expertise should be aligned and adequately utilized to utilize the knowledge base (Hall, 2015; Brookings, 2009; Hall, 2008).

2.16 Theoretical frameworks for PPPs application in down-market urban housing in Kenya

After the end of World War II (1945) to the late 1970s, the dominant political and economic beliefs, which dictated how countries financed their infrastructure was the Keynesian policies and theories. It promoted active state intervention in the delivery of core infrastructure and services, including financing and construction of urban housing in Kenya. This was because it was thought that the private sector was underdeveloped at the time, hence there was a need for heavy government involvement in infrastructure development (Bourdieu, 1998; Callinicos, 2003; Esping, 1999 and Harvey, 2005).

During this time, some low and middle-level housing programmes were developed in Kenya, through government agencies like National Housing Corporation (NHC), which advanced loans to local authorities to develop houses meant for the urban residents. Keynesian theorists criticized the classical Economists' theory before it, which was propagated by Adam Smith among others. This is because the Classical economist theory held that society and economy should be organized in line with decisions of the "hidden hand", and as such, market forces were to be left to deliver services with the government undertaking little interventions as would be

needed (Whitfield, 2006). The Keynesian and classical economist theories were discarded because private sector players would only be engaged in the provision of social needs and infrastructure as long as such ventures were profitable. As such development of down-market urban housing was ignored by developers due to its high-risk nature and costs of production hence low rate of returns on investments (Castells, 1993; Esping, 1999; Harvey, 2005 and Kirk, 1980). Many governments which leaned on the Keynesian theories took upon themselves the responsibility of delivery of key services and infrastructure in key sectors of the economy by creating welfare state models (George, 2004; Hall and Pfeiffer, 2000; Kirby *et al*, 1984; Pinch, 1985; Whitfield, 2006).

As the situation changed with times, states had to contend with competing theoretical and developmental paradigms. On one side are the promoters of the free market economy and on the other advocates of state intervention policies. Through PPPs, many stakeholders with divergent views and theoretical underpinnings participate in providing down-market urban housing (Mohammed et al., 2014; Jones and Pisa, 2000). The Global Strategy for Shelter to the year 2000 reviewed housing policies in the countries of India, Mexico and Indonesia, and concluded that there was a departure from the long-held notion of public provision of housing. It noted that until the 1970's, there were very few partnerships between the public and private players in the design, financing and development of down-market urban housing because of the little trust between the various players (Buse and Walt, 2000). The strategy paved the way for greater engagement of the private sector, households and deregulation of housing functions from the state to other actors (UN Habitat, 1994).

The normative theoretical justification for the involvement of the private sector in the financing and development of down-market urban housing through PPPs and other models is derived from the fact that private entities can supply infrastructure and services more efficiently, at much lower prices, at higher and better quality than the public sector. Theoretically, PPPs are seen as an alternative to the normal practice of public procurement where contracts are issued separately to build, maintain or rehabilitate infrastructure facilities like housing, with the public sector expected to pay as work progresses (University of Calgary, 2016). The Normative and positive theories support the application of PPPs in developing down-market urban housing, holding that

partnerships are central in delivering projects that require huge financial outlays. These theories have held that with adequate structuring, PPPs provide one of the ways of addressing housing shortage, hence justifying the reason for the participation of private players in housing development. This is because private players introduce greater efficiency, greater value from infrastructure developed and maximization of risks through innovation and technology. The PPP programme should be compared to alternatives in the public services and infrastructure delivery to make an accurate judgement (University of Calgary, 2016; Kimani et al, 2015; Boardman and Vining, 2010; David and Jerome, 2006).

The Normative theories on infrastructure and housing provision led to the emergence of the Neoliberal theory, which redefined the roles of the public sector from an infrastructural provider to enabler and regulator. It advocated for the dismantling of the welfare state, which was a limitation to the greater private sector and households' participation in the housing process (Ukoje and Kanu, 2014; UNCHS, 1990; Ibem, 2010). By the 1990s, a dramatic transformation of the welfare state policies took place, which paved the way for policymakers to embrace Neoliberalism thinking, which was also supported by the disintegration of the Soviets Republics, the collapse of the Berlin Wall, the fall of communism and the "Washington Consensus" of 1990, which described a range of policy options for countries (Srinivasen, Williamson and World Bank, 2000). Some of the policy options espoused by Neoliberalism included: the removal of direct state involvement and funding of the majority of infrastructure and service delivery; privatization and de-regulation of state companies and public services; greater operationalization of market forces, ethos and completion; introduction of user charges in areas like water, urban housing and wastes management (Whitfield, 2006; Harvey, 2005; Brenner and Theodore, 2002).

Neoliberalism advocated for greater engagement of the private sector via privatization and PPPs in the provision of the public services like urban housing, through many challenges were experienced, and hence the poor were greatly marginalized from accessing the desired services (Allen, 2007; Whitfield, 2006; Harvey, 2005; George, 2004; Brenner and Theodore, 2002). Neoliberalism advocated for the extension of the mandate of the private sector beyond the traditional realms it had been confined to for many years (OECD, 2005). It was therefore important to assemble a theoretical underpinning that would guide the partnerships between the

public and private players, which was done through the Principal Agency Theory (PAT). The Principal Agency Theory (PAT) explains the application of PPPs in down-market urban housing, where the Agency relationship is defined by a situation where one or more entities called the “the principal”, uses another entity called “the agent”, to undertake some functions on their behalf. The agent is assigned greater responsibilities like financing, construction, operation and maintenance, including decision making. The agent is expected to have a higher uptake of risks than the principal, and as such, all major risks are assigned to the private party, and the agent incentivizes the agent to absorb and hence maximize the project outcomes. The assignment of such functions to the private party invokes Principal Agency Theory developed by Laffont and Tirole in 1993 (IMF, 2009; Delves and Patrick, n.d; Meckling, William and Michael, 1976). PAT demonstrates the effective cooperation between the public and private entities in a PPP arrangement for service delivery as per the agreements (Sajko, 2008; Ong’olo, 2006; Otten, 2005; Smith, 1999). PAT focuses on the methods and systems for aligning the interests of the principal and agents, arising consequences and incentives structures developed to make the relationship deliver agreed project specifications (Delves and Patrick, n.d; The Wealth of Nations, 1776).

Allocation of risks in the Principal Agency Theory is in line with efficiency theory developed by Richard Posner in the 1970s, who argued for “allocation of resources in areas where value is maximized”. PAT maximizes contractual transactional costs which are obstacles to efforts needed to shift resources to their most valuable use, while efficiency theory focuses on ex-ante efficient contracting. This encourages the application of efficiency and wealth maximization components, and the elimination of externalities which slows the execution of projects (Epstein, 2013). This then presents a set of challenges as observed by Mitnick (1973), where the principal is mainly concerned with mechanisms for motivating the agent to perform the assigned functions more effectively by using diverse tools like financial incentives, sanctions, or information flow to motivate the agent. The agent is faced with a dilemma of acting as per the principal’s interests, those of their own or a compromise of the two, which necessitates the application of adequate policing mechanisms. This forces the agent to stick to the contractual obligations, while the incentives, positive or negative, make the agent act in the best interests of the principal. This in

the end brings the need for accountability between the parties, which is the realm of contract theory (Bolton and Dewatripont, 2004; Gailmard, 2002; Delves and Patrick, n.d; Mitnick, 1973).

The PAT theory ensures that the public sector's welfare tendency and profit motivations of the private entities are aligned. The arising compromise and middle ground status between the parties reduce conflicts and lead to greater achievement of common goals and objectives. To maintain the interests of the partners, it is always recommended that a Special Purpose Vehicle or company (SPV) be formed as a general model of the PPPs as illustrated in figure 2.4 (Sajko, 2008). The need for the formation of a Special Purpose Vehicle to manage various contractual obligations between upstream and downstream companies implies that PPPs can then be seen as falling within the dominion of Contract theory postulated by Epstein (2013). This is because certain types of PPP contracts do not operate like normal commercial agreements, but function as special collaborations and partnerships between parties for effective and innovative delivery of goods and services. Modifications are usually implemented to suit the operating environment as opposed to rigidities of the normal contracts. This might operationalize the game theory (Epstein, 2013; Delve and Patrick, n.d; Mitnick and Barry, 1973).

Game theory is an important instrument of availing and producing public goods in line with the theory of public goods. Whenever services and goods are delivered to the citizenry, considerations for budgetary constraints facing the public sector inform the decision taken. To understand the motives behind the acceptance of the concept by public and private entities, it is useful to see PPPs as a game. Game theory furthers the understanding of mechanisms of competition and cooperation, which can be conflicting or strict cooperation between such entities. These strategy choices and corresponding payoffs constitute Nash equilibrium achieved by a situation where neither player will have nothing to gain if they changed their earlier agreed deliverables and vice versa. This results in the prisoner's dilemma (PD), such that the cooperation of one party in the performance of agreed targets leads to cooperation by the other and vice versa (Epstein, 2013; Gazdakoldas undated; Maskin, 2008; Nash, 1950). The prisoner's dilemma and Nash equilibriums are in agreement with the postulations of the PAT in that the principal and the agent play key games in maximizing the attainment of their interests in the contract. The legally binding contracts under PPPs have, therefore, embedded high penalties for

failure and underperformance, which necessitates players to make rational decisions (Delves and Patrick, n.d; Mitnick, 1973).

Decision Theory postulated by Jurison in 1995, indicated that a manager should be accountable for their decisions and concerned about the outcomes of their decisions by weighing risks and rewards, and by taking any of the options available. It delves into decisions made at individual and institutional levels on the merits of developing down-market urban housing. Dickert, et al, (2013) opined that choices might oscillate between allocating resources to influence the well-being of the urban poor through PPPs for housing provision and the failure to do so. Decision theory, therefore, provides the rationale for choosing between competing and alternative courses of action, especially where the consequences resulting from such a choice is not clear at the time of choosing the course of action to follow. This means managers in public entities assume the role of principals in the execution of public interest within the jurisdictions of PAT and public value theory (Getuno et al, 2015; Polasky et al., 2011; Delves and Patrick, n.d; Mitnick and Barry, 1973).

Public Value theory by Moore in 1995, posits that public sector managers with a greater understanding of the existing constraints, such as the need to develop affordable housing, and opportunities exemplified by accruing benefits when the public and private sectors work together, have improved housing development in many countries. The public official roles transcend policy formulation and implementation to include utilizing opportunities that have the potential to contribute to significant achievement of affordable housing goals. The officials should seek to discover, define and produce public value beyond the mandated functions, which is in agreement with the postulations of PAT in that the public managers (agents) must embed value for money for the citizens (Principals) in a manner that meets their expectations. These citizens are also stakeholders of the housing agenda, which activates the need for stakeholder theory (Moore, 2010; Delves and Patrick, n.d; Mitnick and Barry, 1973).

The Stakeholder theory, developed by Freeman in 1984, defines stakeholders as “any group or individual who can affect or is affected by the achievements of the organization's objectives”. It builds from the Principal Agency Theory because shareholders in an organization or society

assume the role of the principal while the implementing officers become the agents through which the aspirations of stakeholders are met (Mitnick and Barry, 1973). Successful housing PPPs should have adequate consultations with all stakeholders for sustainability, and the public officials must create value for the ultimate stakeholder engagement. This will be vital in the formulation of appropriate housing designs, uptake, operation and maintenance, all of which have been lacking in public housing schemes (Getuno et al, 2015; Freeman, 2002; Stieb, 2008; Gibson, 2000).

2.17 Selected theoretical framework for PPPs application for down-market urban housing in Kenya

This study adopted a hybrid model of Principal Agency Theory (PAT), Neoliberalism and Contract theories to elaborate on the theoretical underpinnings for application of PPPs for down-market urban housing, hence the PAT – Neoliberal – Contract Theory nexus. PAT proposes that the principal, in this case, the Public sector, uses the private sector (Agent) to undertake down-market urban housing programmes because of the arising efficiency, sustainability and private financing of the same (Shrestha et al., 2019; Roach, 2016). The literature review has shown that the public sector in Kenya is unable to deliver the required housing units especially for low-income urban housing and as such, it is prudent for the government to incentivize the private sector to deliver housing to address the existing gaps. The public sector being the principal on whose housing is developed can contract the agents who include contractor, cooperatives, organized groups and developers to deliver adequate housing. The agent (private sector) should be assigned more responsibilities by the public sector to infuse modern technologies, innovation, efficiency, effectiveness, economy and enhanced financing for increased housing development in the country. This is in line with the emerging trends for enhanced participation of the private players in infrastructure financing and development (Allen, 2007; Whitfield, 2006; Harvey, 2005; George, 2004; Brenner and Theodore, 2002).

The Neoliberal theory has been defined as a collective thought, academic theory or policy practice, hence the many angles that the term neoliberal can attain. Neoliberalism has been used to entrench practices that favour individualism and an increased application of market principles. The concept has been increasingly used since the 20th century by leading proponents like Margaret Thatcher of UK, US President Reagan among others. The mantra of neoliberalism has

been first of all stabilizing private sector operations, privatization and liberalization, which later led to neoliberalism. It advocates for governments to deal with regulation especially of the financial sectors, increased use of market philosophies like competition to allocate resources where they are more required, including developing down-market urban housing in Kenya (Brookings, 2019). It proposes that the public sector should gradually delink themselves from the roles of infrastructural providers to playing enabler duties to the private sector for effective delivery of services. It advocates for the expansion of the market forces into many public domains hitherto developed solely through public financing (Jessop, 2012).

The Bretton Woods actively promoted the application of Neoliberalism due to changing political environments in the 1990s (Babb and Kentikelenis, 2018; Mazower, 2012). This is because the private entities have better organizational skills, capacity, capital, innovation and business ethos in service delivery. Neoliberalism advocates for the dismantling of the welfare state principles because of the underlying challenges in the delivery of public services including low-income urban housing. This thesis has shown that the private players represented by cooperatives, organized groups, special interest groups can be tasked with developing the required housing in Kenya provided the government plays an enabling role. Under PPPs, the role of government in housing construction is gradually allocated to the private parties who are better placed to address the huge demand for modern housing constructions (Epstein, 2013).

The application of PPPs also invokes the operationalization of the contract theory developed by Llewellyn in 1925. It was aimed at enabling decision-makers to regulate sales and transactions, touching on laws and legal institutions to enforce the same. Llewellyn advocated for respect of contractual obligations to achieve maximum benefits to the contracting parties (Allan, 2014). Contract theory arises from the fact that all projected related activities are bundled and assigned to the private party. In this case, the design, finance, construction, operation and maintenance of low-income urban housing, which leads to homeownership or improved rental housing outcomes are assigned to the private party through PPPs. The private entity internalizes the costs and benefits, which results in exogenous and endogenous uncertainties in contract execution (Knut, 2017; Allan, 2014; Epstein, 2013). Figure 6 shows the diagrammatic presentation of the selected theoretical framework.

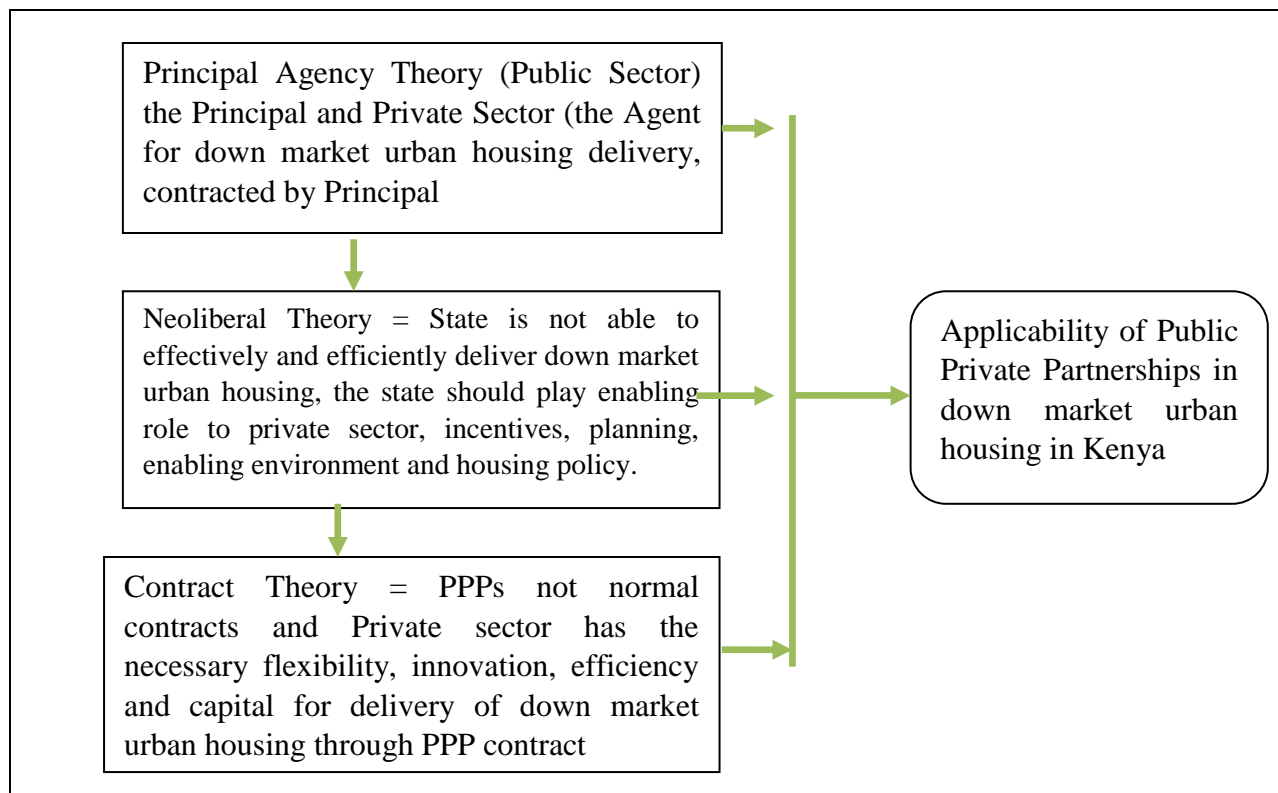


Figure 6:Diagrammatic presentation of the theoretical framework

Source: Author (2020).

2.18 Conceptual Framework

In conceptualizing the application of PPPs in developing down-market urban housing, it has been pointed out that the concept envisages greater cooperative efforts between various parties, which are more durable and long-lasting than normal contracts. It leads to the operationalization of long term cooperation, contractual obligations and joint development of down-market urban housing, including sharing of the costs incurred in the process. Some cases might involve joint financing especially for social sectors such as low-cost urban housing which is not wholly profitable for the private sectors to intervene without adequate policy directions and commitments. This then requires the operationalization of means of compromising of various interests (Irina and Sergej, 2017; Legros, 2015). The various likely risks (financial, construction or governance risks) have to be identified and adequately managed in properly functioning PPPs. At the end of the process, both parties should proportionally share the benefits or the blames thereof (Zinyama and Nhema, 2015; Greve, 2008; Van Ham and Koppenjan, 2001).

It can, therefore, be conceptualized that the arising partnerships envisaged by this project will accommodate the emerging literature issues by ensuring that the independent variables

(Identifying unique factors and challenges which hinder PPPs application; efforts made by stakeholders to address such bottlenecks; roles the public sector plays in the process; frameworks developed for PPPs application; and the art of leveraging on the resultant opportunities from the application of PPPs). These factors are moderated by the PESTEL factors against the backdrop of high demands for services, which will ultimately lead to the successful application of PPPs in the development of down-market urban housing. This argument is summarized in figure 7 below.

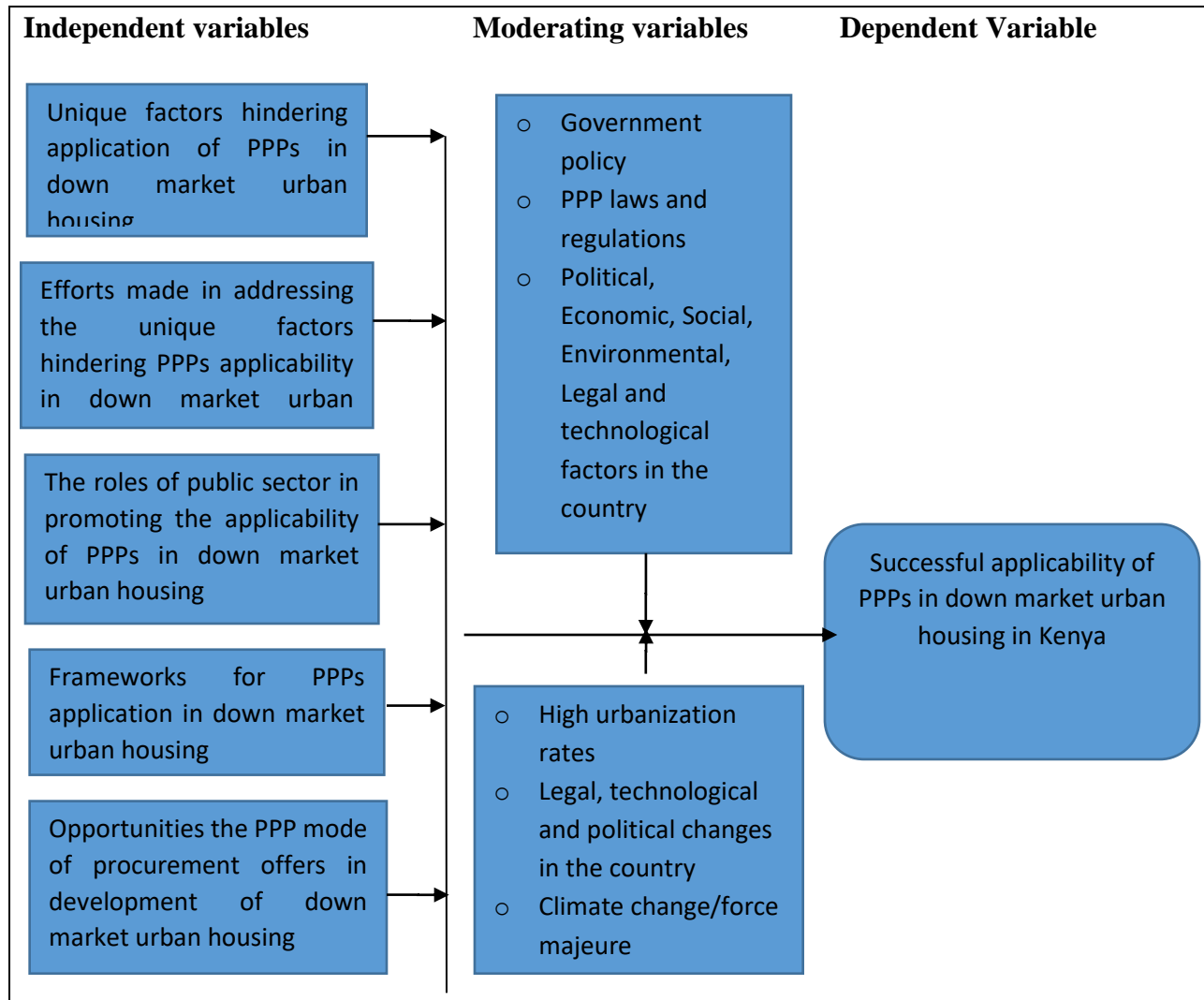


Figure 7: Diagrammatic presentation of the conceptual framework for PPPs for down market urban housing development in Kenya.

Source: Author (2020).

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction

This chapter explains the methods that were applied in the study and shows the procedures and the justification for the use of the Delphi method of forecasting because the subject matter of the applicability of PPPs in down-market urban housing is an area which has not yet been researched nor applied successfully in Kenya. This necessitated the researcher to use the Delphi method which would facilitate scientific prediction and the discovery of realism of the future outlook and the probability of applying PPPs in the housing sector. The sections of the chapter include: introduction; research methodologies; introduction to forecasting methods; the Delphi method of forecasting; strengths of the Delphi method of inquiry; weakness of the Delphi method of inquiry; rationale for use of Delphi methods of forecasting; research design; reliability and validity of Delphi method; sampling frame; data collection procedures; data processing and analysis; data presentation; and indicators for applicability of PPPs used in the study.

3.1 Research methodologies

Research methodology refers to systematic and theoretical methods applied in the process of conducting research. Research should be anchored on scientific reasoning, which could be inductive or deductive or a combination of both, through which truth about phenomena is discovered. This implies that in the process of conducting research, the researcher seeks to gain an understanding that contributes to the development of theory, decision making and corrective actions to address the prevailing challenges which necessitated the conduct of research. The methodology of undertaking research is defined by the views, assumptions and theoretical frameworks held by the researcher (Igwenagu, 2016; Hoa, 2016). Research methods have been defined as the techniques or procedures for collecting, gathering and analysing data that are related to the research questions or hypothesis (Hoa, 2016; Crotty, 1998).

Research methodologies are guided by philosophies and methodologies and they include surveys, case studies, simulations, subjective or argumentative researches and action research. The research philosophies can be grouped into positivistic (quantitative, objectivist, scientific, experimentalist or traditionalist) undertaken through surveys, experimental studies, longitudinal studies and cross-sectional studies), and phenomenological (qualitative, subjectivist, humanistic and interpretative) which are conducted through case studies, action research, ethnography,

participative enquiry, feminist perspectives and grounded theory). This leads to seven types of research which include. First, is action research which is common in applied research; which requires implanting the recommended changes in a process. Second, is creative research which is used in the development of new theories, procedures and inventions, and includes both practical and theoretical research. Third, is descriptive research or case study research which involves studying a specific situation to ascertain or seek the development of new theories, and is more common in anthropological research. Fourth, is experimental research which is the cornerstone of science and is done through experiments and creative research, and is concerned with cause-effect relationships after identifying the dependent and independent variables. Fifth, is ex-post facto research which builds from data generated from experimental research and deduces the cause from the effect. Sixth, is expository research which focuses on existing information hence it is review based. The seventh is historical research which studies the past to determine cause-effect patterns (Igwenagu, 2016; Lodico et al., 2010).

3.2 Introduction to forecasting methods

Forecasting is a procedure through which statements concerning certain desired events, whose outcomes have not been experienced are made (Chukwuemeka et al., 2014; Armstrong et al., 2013). Forecasting is a process of making predictions about a future occurrence (Pearson Education, Inc., 2011). Prediction, therefore, is a broader term associated with forecasting and prediction, which might use prescribed statistical methods ranging from time series, cross-sectional or longitudinal data and informal judgmental methods (Chukwuemeka et al., 2014; Armstrong et al., 2013). Various terms can be used depending on the intended field of application, for example, terms like “forecast” or “forecasting” may be used for estimation of values for specific future times, whereas “prediction” may be adopted to general estimations such as the number of flooding incidences likely to take place in a given area with time (Chukwuemeka et al., 2014).

According to Chukwuemeka et al., (2014), there are two broad categories of forecasting, namely: qualitative and quantitative methods of forecasting. Qualitative forecasting methods are premised on issues of subjectivity, opinions and judgments of consumers. Qualitative methods of forecasting are applicable in cases where the research situation is vague and little data exists on the subject matter. It may include areas like research on new products and technologies (Pearson

Education Inc., 2011). The application of qualitative forecasting methods is limited to intermediate or long-range decisions about a subject matter. Chukwuemeka et al., (2014). On the other hand, quantitative forecasting methods are used for the prediction of the future as a function of the past available data. The method is applicable in cases where there is existing data, including presently available products, services and technology (Pearson Education, Inc., 2011). Quantitative forecasting methods include last period demand, simple and weighted N- period moving averages, simple exponential smoothing and multiplicative seasonal indexes. These methods involve application of mathematical techniques in the process of making forecasts on any subject matter (Chukwuemeka et al., 2014; Pearson Education, Inc., 2011).

Five other forecasting methods may be used for data collection that include Naïve approach forecasting methods, time series, causal/econometric forecasting, judgmental and demand forecasting methods. Naïve approach forecasting approaches are the most cost-effective of the forecasting tools which provide a background upon which more complicated models are built from. Application of Time series methods is done through historical data collection which forms the basis to estimate future outcomes. The Causal and econometric forecasting approaches use the assumption that it is possible to identify underlying factors that have a direct impact on the variable under observation. This method has been utilized for example in monitoring and making predictions on climate change and thereby improving the ability for accurate predictions about various weather phenomena (Chukwuemeka et al., 2014; Nahmias and Steven, 2009).

Forecasting methods might fall into three time horizons. Short-range take three months to one year, which is useful in making predictions and forecasts such as sales, purchases, job schedules, organizational workforces and attendant productivity among other forecasts. Medium-range forecasting takes one to three years while long-range forecasts take three years and above, and deal with forecasting on new products, planning, location of facilities, research activities, and development planning among others. This could fall within the realm of demand forecasting by estimating the quantities of products or services, including its ability to use informal methods of gauging such demands including educated guesses (Chukwuemeka et al., 2014; Pearson Education, Inc., 2011).

It has been established that causal forecasting methods are subjective to the discretion of the forecaster since they do not have strict algorithms, are unstructured and modest guiding tools for

research inquiry (Chukwuemeka et al., 2014). Causal methods of forecasting include regression analysis used to predict the future of desired variables using information derived from other variables. Use autoregressive and exogenous methods of moving averages may be used within the realm of regressive forecasting. The causal method of forecasting relies on two types of parametric methods (linear and non-linear) and non-parametric techniques (Ellis and Kimberly, 2009). Judgmental methods of forecasting have also been known to incorporate intuitive judgments, opinions and subjective probability estimation methods. It is within the forecasting methods, under the building consensus category of action research that the Delphi technique belongs (Avella, 2016; Chukwuemeka et al., 2014; Vernon, 2009).

3.3 The Delphi method of forecasting

The study adopted the Delphi method of research to gauge and forecast the applicability of PPPs for down-market urban housing in Kenya. Delphi technique is named from the practice of the ancient Greek word “Delphi” the “oracle”, wherein a priest called Pytho at Pythia would directly communicate with Greek gods to answer society’s challenges through oracles (Hasson et al., 2000). In Delphi literature, there exist two extremes in matters knowledge: One end there is knowledge based on evidence that has been presented, while on the opposite is the speculation, which lacks evidence to support its applicability, and predictions through educated guesses have to be made. In between these oscillations are the opinions possessed by experts in a given field, which can be harnessed to make accurate predictions (Avella, 2016; Dalkey and Helmer, 1963). Delphi is used where expert know-how on a certain problem is limited, and where there is need to systematically combine experts’ opinions on a subject matter of inquiry. This is done in order to arrive at a group consensus on a complex problem like the provision of down-market urban housing through PPPs (Donohoe and Needham, 2009; Linstone and Turoff, 1975; Ritchie and Goeldner, 1994; Veal, 1992; Moeller and Shafer, 1994; Weber and Ladkin, 2003; Duboff, 2007).

The Delphi methodology was developed to leverage expert know-how, opinions and judgement on a complex issue and at the same time draw forecasts for long term trends on the matter. At first, it was to develop military capabilities and technology for future war exploits and the impact of the same on the political and governance systems of the world. These were considered emerging issues that did not have concrete answers hence the need for opinions of experts

through Delphi. It was developed and perfected through a series of studies by the Rand Corporation in the US in the 1950's (Somerville, 2008; Gordon, 1994; Murray, 1975). It aimed to assist organizations to achieve reliable consensus through experts on the same techniques proposed (Somerville, 2008; Chitu and Suzanne, 2003; Gordon, 1994; Linstone and Turoff, 1975). Through Delphi methodologies, oral contraceptives, organ transplants, synthetic proteins, ultra-light materials, desalinization of water from the sea for economic purposes and the landing of man on the moon were achieved by various stakeholders including NASA (Amant, 1970).

Delphi is a qualitative research method, whose attributes can match those of interpretivism, but can have quantitative components at the same time and depending on specific utilization, which has gained greater acceptability doctoral thesis in the recent past (Avella, 2016; deBoer and Hale, 2002). According to Erdener (1994), the Delphi technique is used to make constructive and systematic application of informed intuitive judgment, on the understanding that a group of experts is better informed on the issues of inquiry than the non-experts. Delphi works by establishing chronological occurrences of scientific activities and phenomena in an area of inquiry. It can be termed as a “futures research” for making predictions on issues within the domain of social sciences (Avella, 2016; Von der Gracht, 2008; Paliwoda, 1983; Weaver, 1971; Dalkey and Helmer, 1963). The common characteristic salient in a Delphi study is that the communication and engagement of the experts are structured in a group, which makes the process effective since this allows joint decision making of complex issues. Feedback and contribution of individuals does not suffer from dominating members as in a face to face communication and other focused group discussions. During the data collection process, individual experts will be informed of the opinions of others and asked to either restate their earlier views or change as per judgements of others. The anonymity of the experts remains guaranteed and guarded such that names are only known by the researcher, and this is done through the use of questionnaires administered through emails (Rowe and Wright, 1999; Linstone and Turoff, 1975; Erdener, 1994).

The application of the Delphi forecasting method to gauge the future applicability of PPPs in down-market urban housing is based on the fact that a group of experts, practitioners and players are better informed, than non –experts or people who have not been actively engaged in housing

matters. The experts have an idea of what needs to be done to make PPPs applicable in down-market urban housing in Kenya (Paliwoda, 1983). These experts were utilized to answer issues of financing, policy and development of down-market urban housing in Kenya. This will lead to the development of short and long term projections on the applicability of the concept in developing and addressing urban housing challenges in Kenya (Young and Jamieson, 2001; Martino, 1983; Linderman, 1981; Linstone and Turoff, 1975; Delbeq, Van de Ven and Gustafson, 1975; Dalkey, 1969 and Dalkey and Helmer, 1963).

The basic strategy of conducting Delphi studies is done by assembling a group of experts in a given area of inquiry, who participate in the process regardless of their geographical location. The respondents participate in several “rounds or iterations”, where questionnaires were sent through emails or direct face to face dispatch to the respondents (Linstone and Turoff, 2002). The Delphi questionnaires were aimed at getting answers to various research problems, undertaken through the development of forecasts on the future applicability of the agreed strategy, in this case the application of PPPs in down-market urban housing. Each questionnaire was developed based on the findings of the previous one, and the process should ideally stop when consensus is attained, a theory is developed or where according to the researcher, sufficient information has been exchanged and shared (Skulmoski et al., 2007). Melynk et al., (2009). The minimum qualification criteria for one to be considered an expert in a research inquiry of Delphi nature is that the person is willing to participate throughout the study. In addition, the researcher should establish additional criteria like the expertise and knowledge possessed by the would-be panels (Avella, 2016).

The rounds should ideally repeat themselves up to a level where the consensus is attained in a group, such within each round or repetition, there are specific responses which are achieved, where in some cases some of the responses diminish while others proceed to the proceeding levels. This was done until an agreeable outcome was achieved in the process of establishing matters key in the application of PPPs in down-market urban housing. Consensus does not mean that the responses were 100% in agreement, as this might be difficult to achieve in a group of experts who have varying interpretations of the subject matter. As such, Delphi consensus ranges

between 55- 100%, with 75% being considered as the standard consensus percentage (Avella, 2016; Vernon, 2009; Fischer, 1978).

The reason the research adopted the use of the Delphi method is based on the fact that it is ideal where there is inadequate knowledge as pertains a certain area of inquiry. There is very little available information on the applicability of PPPs for down-market urban housing as compared to PPPs in other sectors such as transport and energy in Kenya (Adler and Ziglio, 1996; Delbeq *et al*, 1975). The provision of down-market urban housing has been a challenge since independence for the Kenyan government. The Delphi technique was ideal for this study to come up with ground-breaking discoveries to address the challenges facing effective development of down-market urban housing by utilizing group opinions on its delivery (Skulmoski and Hartman 2002; Czinkota and Ronkainen, 1997 and Halal, Kull and Leffman, 1997; Linstone and Turoff, 1975). Delphi was in the study because the matter under consideration did not require precise analytical techniques, but could benefit from subjective judgments and opinions from experts (Skulmoski, 2007; Adler and Ziglio, 1996). The forecasts made from the rounds will assist authorities in Kenya in factoring the utilization of PPPs in their national and county development programmes to develop housing (Skulmoski, 2007; Delbeq *et al.*, 1975).

3.3.0 Strengths of the Delphi method of inquiry

The first strength of the Delphi technique is that it is best suited to explore issues that require sound judgments to elicit management decisions on a subject matter, in this case, the application of PPPs in developing low-income urban housing (Theodore, n.d). Secondly, the method ensures that the experts remain anonymous, which has the effect of reducing dominance by specific individuals and experts, as is common when using group discussions and processes in data collection and analysis (Hsu and Sandford, 2007; Dalkey, 1972). Anonymity is fundamental in the Delphi study because it enables experts to freely state their opinions without being seen as diverting from groupthink. The panels provided their answers by filling the questionnaires, hence eliminating chances of domination of the process by any one individual (Yousuf, 2007; Rowe and Wright, 1999).

Thirdly, it ensures that there is controlled feedback in the process of data collection and analysis, which reduces the effect of noise – communication occurring in a group process that might distort data collection processes. It focused on key issues central to resolving the problem at hand

through consensus building (Hsu and Sandford, 2007; Dalkey, 1972). Delphi method brings out the expert opinion in questions requiring expertise in a given inquiry that might be inferior to what would be produced on average via group dynamics (Chitu and Suzanne (2003). The controlled nature of Delphi feedback mechanisms allows for back and forth iteration, which enables experts to continually refine their earlier stated opinions. It informs the experts of perspectives of others on the subject matter of inquiry, and provides a platform to change or modify their statements, in light of what has been synthesized to clarify their views (Rowe and Wright, 1999);

Fourthly, Delphi uses statistical analysis techniques, which further reduces the potential for group or peer pressure as experts seek to attain conformity with the general group opinions, hence providing unbiased answers for example in developing low-income urban housing through PPPs in Kenya (Hsu and Sandford, 2007; Dalkey, 1972). The statistical aggregation of the group responses makes it possible for quantitative analysis and further interpretation of the gathered data, which is then used to make informed predictions and judgements on a subject matter (Rowe and Wright, 1999).

3.3.1 Weaknesses of the Delphi technique of inquiry

The first weakness of Delphi is that it is time consuming especially where there are large statements provided by the respondents, which makes the researcher and participants spend a lot of time giving or reviewing the statements provided by others in the panels (Delbecq, Ven and Gustafson, 1975; Ludwig, 1994). Rowe and Wright (1999) pointed out that early critique of the Delphi method was based on the sloppy execution through either poorly worded and ambiguous questionnaires and superficial analysis of the said questionnaires as pointed by Linstone (1975). This could lead to inaccurate interpretation of data and weariness arising from the process, which might result in many respondents dropping out during the iterations (Delbecq, Ven and Gustafson, 1975; Ludwig, 1994). The second challenge arises from the fact that deciding the level of consensus in the data analysis stage may have varying interpretations between various experts and researchers (Hsu and Sandford, 2007).

3.3.2 Rationale for use of the Delphi method of Forecasting

The reason this study utilized the Delphi technique is that it is suitable where there is inadequate evidence on the utilization of a certain technology or where the existing evidence does not

support the application of a proposed idea. Application of PPPs for down-market urban housing in Kenya has not been researched before hence the suitability of the Delphi method for a collective and subjective judgement on future applicability of the concept. This will facilitate the establishment of the cause-effect relationships on the application of PPPs and increased instances of development of low-income urban housing in Kenya (Avella, 2016; Hejblum et al., 2008; Zeng and Zhang, 2012). Delphi method is used where the researcher is interested in establishing the opinions of experts in a given area and conceptualization of the strengths and weaknesses of the proposed method of intervention. It may be used where a researcher is interested in testing the effectiveness of a given method which is albeit new to the field (Skulmoski et al., 2007). Data collection is limited only to the making of forecasts on future applicability and combines expert know-how in drawing conclusions on future applicability of the concept in urban housing in Kenya.

3.4 Research design

Research design has been defined as the structure of conducting a given research and is seen as the “glue” that holds all the elements necessary for undertaking a coherent study. It can be seen as a master plan, process, arrangement, and a methodology through which data is collected and processed (Akhtar, 2016). In the conduct of Delphi studies, the researcher selects and assembles the individuals for the research based on their knowledge of the problem being investigated. These knowledgeable persons are defined as a “panel of informed individuals or experts”, hence for this purpose, persons involved in the day to day practice of housing issues – housing practitioners, housing developers and housing financiers qualify were utilized as experts. Questionnaires were administered to them to gauge future applicability of PPPs in down-market urban housing (Hasson et al.,2000; Lemmer, 1998; MacKenna, 1994). The selection of the experts was done carefully so that those cleared to be part of the three panels were impartial when offered a chance for weighting the answers provided, hence facilitating the researcher in making informed decisions about the applicability of PPPs in down-market urban housing. This further enabled the researcher to develop trends and projections on the applicability of the concept in developing low-income urban housing (Hasson et al.,2000; Goodman, 1987).

The selection of the Delphi experts applies non-probability sampling techniques like purposive or the criterion sampling methods utilized in this study. The selection of the respondents was not done randomly and hence representativeness is not guaranteed, because the respondents were

selected for a particular purpose, such that throughout the Delphi process, they would apply their knowledge to the problems of financing down-market urban housing through PPPs. The purposive method applied by the researcher, after formulating the questionnaires and undertaking a comprehensive literature review was adequate to provide sufficient answers for the questions related to the applicability of PPPs in down-market urban housing. In this Delphi method, the researcher handpicked the participants to be included in the sample by consulting their relevant organizations (Polit and Hungler, 1997).

The assumptions made by the researcher on the panellists are founded on the criteria set out, which in this case was based on known entities and persons who have a thorough knowledge on housing matters. It was assumed such panels have an idea on the applicability of PPPs in down-market urban housing. The logic behind the utilization of such criteria and sampling method was made better by having undertaken a review of all the possible respondents and making judgments on their suitability for this study. This was due to the importance they attach to unlocking the challenges facing the financing of down-market urban housing through PPPs in Kenya. This method was similar to what is practiced in other research issues under selective sampling techniques (Hasson et al., 2000; Patton, 1990).

Once the sample was identified, the next step was the actual administration of the questionnaires to the three panels of housing developers, housing financiers and housing practitioners. The panels comprised of 28 -30 persons each for housing developers, housing financiers and housing practitioners. On the part of housing developers, the Kenya Property Developers Association (KPPDA) was approached to recommend housing developers based in Nairobi City County, who would participate in the Delphi rounds. These developers were 28 in number and were selected from: Munchen general contractors, Axis real developers, Nile developers, Daykio developers and real estate, PDM Kenya ltd, Kelly developers and Engineering ltd, Cytonn real estate developers, Vimerc Ltd and Munthumbi developers. The focus on these developers was because they had the real experiences in developing housing within Nairobi City County and as their opinions on future applicability of PPPs in developing low-income urban housing was important (Somerville, 2008).

On the part of housing financiers, the Kenya Bankers Sacco provided a list of individual banks financing property development in Nairobi City County to be part of the Delphi panels. The

participants from banks were 30 in number and were selected from: Equity, Kenya commercial (KCB), Commercial bank of Africa now NCBA, National Bank (NBK), Cooperative Bank and Jamii Bora bank. The rationale for the utilization of the financiers was that adequate financing of PPPs requires sound financing arrangements which can only be done through such institutions. Their participation provided an understating of various PPP financing options to be developed for future financing of housing PPPs. The third panel comprised of the housing practitioners, who were selected to participate in the Delphi rounds through a letter sent to the Principal Secretary, State Department of Housing, Nairobi County Director of Education and Nairobi County Commissioner. These would grant permission for staff dealing with housing matters in both Nairobi City County and Housing Directorate to form part of the panels. Housing practitioners were 30 in number and comprised of deputy directors, housing officers, planners, urban managers, architects, economists, engineers, geographers, community development officers and lawyers. The lowest experience time in housing matters for the panels was ten years and the highest was 32 years in housing and built environment practice (Somerville, 2008; Lang, 1995; Powel, 2003; Wallsten et al., 1997).

All the panels were approached through initial email contacts, face to face conversation, or telephone conversation to seek their consent to participate in the Delphi process. The researcher utilized email reminders, phone calls and actual visits to the offices of the respondents to enhance timely response and completion of the questionnaires. In some cases, Google forms were used which enabled respondents to fill the questionnaires online and send back to the researcher for analysis. The first round questionnaire had an introduction explaining the respondents about the method to be employed, the analysis and purpose of the study, which greatly improved the response rate (Avella, 2016; Linstone and Turoff, 2002).

After each round of Delphi data collection, respondents were notified of the opinions of other panellists through a summary of the findings until the third round of the Delphi rounds. This is because the role of the researcher in Delphi is two-fold – a planner and facilitator of the research process. This is contrary to playing the role of an instrument in traditional research designs (Hasson et al., 2000; McKenna, 1994; Buck et al., 1993; Whitman, 1990).

3.4.0 Reliability and validity of Delphi method

Reliability in research is the magnitude in which the procedures applied in one research produces similar results if conducted under the same procedures. Delphi has been found to produce similar findings if conducted under the procedures followed in this study. It produces reliable and valid data that is credible, applicable, consistent and confirmable as undertaken in this study (Hasson et al., 2000; Lincoln and Guba, 1985). The validity and reliability of Delphi is based on the premise that there is safety in numbers, the maxim that several persons whose opinions are weighted are less likely to lead to wrong assumptions and predictions. In Delphi, the only threat to validity and reliability might come from the pressure to conform or converge with others, but this was not the case as the panellists did not have interactions throughout the process of data collection (Hasson et al., 2000; Hill and Fowles, 1975).

The Delphi technique has evolved from the 1950s to the current state which shows that it has been used in many scientific and research domains. In the 1960s, it was used studies touching on planning the economies of the developing countries, and touched on civil service sectors, future studies of science and technology in Japan and Europe. Its applicability grew in the 1970's such that there were over 670 studies undertaken through Delphi beyond military forecasting. In the 1980s to 2004, its application covered almost all research inquiries and fields including in doctoral studies (Finley, 2012).

The use of the experts and panels who have some experience and know-how about the subject matter under investigation was very key in ensuring that the data was valid and reliable. The use of three rounds of Delphi was useful in ensuring that the content was valid and that the responses were made in such a way as to ensure that a majority of the panellists participate in the process (Hasson et al, 2000; Goodman, 1987).

3.4.1 Sampling frame

One of the challenges in Delphi studies is coming up with a representative sample of the whole population. This is because of the known maxims that the number and the representativeness of the selected participants have a significant bearing on the quality of ideas and strategies to be developed through the data collection process. Therefore, it has been agreed that to provide information that is representative enough, which yields adequate data analysis for the generation of acceptable answers for the research questions, some studies employs more than 60 participants

(Alexander and Kroposki, 1999). Other studies have adopted the utilization of up to 15 participants in the Delphi process (Burns, 1998). Clayton (1997) opined that a Delphi panel of 15 -30 persons is the ideal for a homogenous group of experts, while Dalkey (1969) on the other hand proposed that 15 -20 respondents can participate meaningfully in a Delphi study. Ziglio (1996) proposed the utilization of 10 -15 persons in the Delphi process, while on the same length, Murray (1970), opined that 10 -50 persons can be used in a Delphi panel. Chitu and Suzanne (2003) preferred the utilization of responses for up to 3 panels of 10 -18 members in size.

Seuring and Muller (2008), Okoli and Pawlowski (2004) and Martino (1983) pointed out that the expertise possessed by the potential respondents is the most important criteria why such respondents may be used in the Delphi study. Sackman (1975) and Welty (1974), showed that high levels of expertise in a Delphi study are not necessarily required to qualify or to validate a Delphi study results. It was also found out that on aggregating group opinions, a group of six to twelve panel members would bring optimum data collection (Mitchell, 1991; Hogarth, 1978). It was also stated that the more the differences emerge, the groups and panels should be made larger for effective data collection achievements. The larger the size of the panel, the more the reliability of data is achieved, but this tends to slow from a Delphi panel of 20-25. When the panel size increases beyond 20-25 only minimal improvements would be realized (Somerville, 2008; Hogarth, 1978).

Erdener (1994) noted that the choice of the sampling frame depends on the nature, scope and importance attached to the study. It has been pointed out that the size of the Delphi panel sampling frame can vary as much as is possible; as such, there is no agreement on what it should be like or what would constitute an appropriate panel for data collection (Somerville, 2008). This study utilized 3 panels of 25 -30 persons per panel as proposed by Murray (1970), who provided that the panels can range from 10 -50 respondents in a panel. This standpoint is supported by Gordon (1994), who concurred with the utilization of Delphi panels of 15 -35 respondents. This is because it was observed that most Delphi studies used such ranges in conducting research. The decision of utilizing Delphi panels of the 25-30 persons per panel is based on the fact that many studies have found no relationship between the panel size and effectiveness and efficiency of data collected (Rowe and Wright, 1999).

This research study employed three panels of a total of 88 persons who responded to the questionnaires from round one to three. It has been pointed out the larger the sample size, the greater it will be in the generation of data and adequate results, though in some cases if the sample is too large, it has a negative effect on data handling and analysis (Hasson et al., 2000). Delphi studies do not have to use statistical samples to be representative of the target population, because it is a group decision-making tool used to examine and make predictions by using opinions of experts and practitioners of a certain developmental tool (Chitu and Suzanne, 2004).

3.4.2 Data collection procedures

Hsu and Sandford (2007) observed that the Delphi process can be continuously iterated up to a level that consensus will be attained on a specific research inquiry. It should be done up to a point where no insights and discoveries emerge (Linstone and Turoff, 2002; Seuring and Muller, 2008; Okoli and Pawlowski, 2004). The number of iterations or rounds of questionnaires is dependent on the levels of consensus considered adequate by the researcher, and this may vary from three to five (Delbecq, Van de Ven and Gustafson, 1975; Ludwig, 1994). Skulmoski, Hartman, Krahn (2007) quoting Alexander (2004), Rosenbaum (1985) and Thomson (1985) observed that increased numbers of rounds required more efforts by the selected Delphi panellists to complete the process. Research has shown that three iterations are adequate to gather the required information, while at the same time helping in attaining the much-sought consensus in the application of PPPs in down-market urban housing (Delbecq, Van de Ven and Gustafson, 1975; Cyphert and Gant, 1971; Brooks, 1979; Ludwig, 1994, 1997; Custer, Sarcella and Stewart; 1999).

Data collection was done through questionnaires such that round one Delphi questionnaire was open-ended, hence exploratory in nature. The intention at this round was to generate and solicit specific information from the Delphi experts in the study (Hsu and Sandford, 2007; Hasson et al., 2000; Gibson, 1998). The answers for the round one Delphi were analysed and formed the basis for developing round two Delphi questionnaire. The participants were asked to review the answers provided in round one and re-state the same or justify the changes made, which highlighted areas of disagreement or agreements amongst the panels (Hsu and Sandford, 2007; Ludwig, 1994; Jacobs, 1996). This served to reinforce the priorities and action points for the application of PPPs in developing down-market urban housing. Round two answers on various issues on the applicability of PPPs in down-market urban housing were ranked in order of

importance, and in some cases room was provided for additional explanations and justifications for what was stated by panels. This formed the basis for the formulation of the third and final Delphi round questionnaire, whose answers were utilized to make final judgements on the various aspects under consideration in the application of PPPs for down-market urban housing in Kenya (Rowe and wright, 1999). The panels were provided with answers from round two which were rated and summarized, where they were asked to rank what was provided. This was meant to make a final consensus on the subject matter under consideration (Hsu and Sandford, 2007).

The soundness of the data collection process was guaranteed by adequate application of the laid down procedures in a Delphi process. Quality control was adhered to throughout the data collection process through the questionnaire administration process. The telephone conversation and follow up was a motivation for the respondents to participate in all the rounds, which was strengthened by making the questions as clear as possible, and providing instructions easy to guide the participants in answering the questions. Before the administration of the questionnaires, it was pre-tested, adequate survey procedures followed and the returned questionnaires were coded and finally, data was captured correctly before analysis could be done (Somerville, 2008; Barribeau et al., 2005; Scheuren, 2004).

3.4.3 Data processing and analysis

This stage involved the analysis and careful management of the qualitative and quantitative data which was collected in the Delphi rounds. Data was collected through questionnaires in the 1st, 2nd and 3rd rounds. Data from the 1st round was qualitative in nature and was analysed through content analysis techniques. This involved grouping similar issues and items together in a summarized form. Minimum editing of the issues as they came out from the respondents was applied such that what was provided in round one found its way in round two Delphi (Hasson et al., 2000; Pateman, 1998).

During each stage, data obtained was analysed and returned to the respondents to provide additional information or clarifications as would be necessary. During each proceeding round, the respondents were asked to change their opinions if they went against what was provided by the majority or state reasons for sticking with their earlier statements. The application of the Delphi method is based on the panellists achieving consensus, although there is no standard way

in which consensus can be said to be achieved in an area such as the provision of down-market urban housing (Somerville, 2008; Hasson et al., 2000; Mitchel, 1991).

Over time, it has been found out that most changes in the panellists' opinions occurred within the 1st and 2nd rounds and further rounds did not experience marked changes in the earlier provided opinions. This was true for this study, and a lot of reviews occurred in round one and two and these opinions remained stable at round three. Actual consensus on the subject matter can be seen as attaining opinion stability or the collective agreement amongst members of a group (Somerville, 2008; Mitchell, 1991). The consensus was achieved in three Delphi rounds because of the iterative process of the model (Linstone and Turoff, 1975). It has been agreed that one way of aggregating the opinions of the panel is through averaging the responses obtained in respect to a certain research inquiry, which was adequate for the 1st and 2nd rounds (Somerville, 2008; Winkler and Clemen, 2004; Clemen, 1989; Clemen and Winkler, 1986; Larrick and Soll, 2003; Wallsten et al., 1997). Round two utilized some level of ratings in analysing the responses from the participants (Hasson et al., 2000). The use of a rating scale like a Likert scale has the probability of pooling the results from the panellists, therefore, improving the reliability of the data collected and weighted (Somerville, 2008; Helmstadter, 1964). Some pieces of opinion which were not supported in the subsequent round were dropped on the way to attaining consensus (Hasson et al., 2000; Green et al., 1999; Whitman 1990).

In the Delphi method, the consensus in an area of inquiry is achieved if some percentage of the opinions lie within a recommended margin (Miller, 2006). A further criterion is that consensus achieves 80% of the participants' approval and falls within two categories on a seven-point scale (Ulschak, 1983). Green (1982) proposes that at least 70% of the Delphi participants have to rate 3 or higher on a 4 point Likert kind scale with the median being 3.25 or higher. This approach is strongly favoured (Hill and Fowles, 1975; Eckman, 1983; Jacobs, 1996). Jacobs (1996) observed that "considering the anticipated consensus and the skewed expectations of the responses as they were compiled, the median would inherently appear best suited to reflect the resultant convergence of opinion.

Hsu and Sandford (2007), observed that the use of the model is suitable when reporting data in the Delphi process. Ludwig (1994) shows that the Delphi process tends to make convergence appear easier. Research using the Delphi technique has shown that major statistics used in such

studies are measures of central tendency (means, median and mode) and level of dispersion (standard deviation and inter quartile range). This enables the presentation of information concerning collective judgments of respondents (Hsu and Sandford, 2007; Hasson, Keeney and McKenna, 2000). Murray and Jarman (1987), proved that the mean is more practical when combined with the standard deviation in making an informed decision on the area of study. The two measurement scales can measure how far or near the provided answer is to the prevailing statement on the area of study. This study utilized the measures of central tendencies, mean, and the measures of dispersion – standard deviation and percentages to gauge and make informed decisions on the subject matter under investigation. Rankings of the mean and standard deviation were used to point out that level of consensus and agreement on the subject matter (Hsu and Sandford, 2007).

3.4.4 Data presentation

In Delphi, there are no consistent methods that have been adopted for reporting the findings and data obtained in the three rounds (Schmidt, 1997). A careful review of literature has shown also that many approaches can be used in reporting the findings of Delphi studies, and that there is no universally accepted way of reporting the findings (Hasson et al., 2000; Schmidt, 1997). It is for this reason that some studies have used graphical representations of the findings (Hasson et al., 2000; Malhotra et al. 1994), others have used textual presentation of the statistical results of the central tendency measures like variance and ranks (Hasson et al., 2000; Woff et al., 1996; Chocholik et al., 1999). Whenever any method of presenting Delphi data is adopted, the reader must be given basic note on how to interpret the results as depicted in the texts, and the emphasis the researcher places on such readings (Hasson et al., 2000; Malhotra et al., 1994; Woff et al., 1996 and Chocholik et al., 1999). In this study, data findings were presented through textual presentations of statistics of mean and standard deviations, pie charts, bar graphs and tables showing the mean, standard deviation and ranking of the same (Hasson et al., 2000).

In the first and second round Delphi analysis, percentages and frequencies were used to gauge the values attached to the various responses from the panels. Content analysis was undertaken for the first round responses since they were provided in raw forms in the process of gathering preliminary issues on the applicability of PPPs in down-market urban housing. In cases where tables were used to show the standard deviations and the mean, the ranking was obtained through the standard deviation values and further remarks on the importance of such scores were made.

This was done in accordance with the method developed by Abdul Aziz (2010), in his study on housing private public partnerships: perspectives from government agencies in Malaysia. The ranking and remarks obtained from the calculation of the means and standard deviation of the data from the panels were arranged such that: 0.00 – 0.5 value of the standard deviation was assigned the value of “Highly Important”; 0.51 -0.7 was denoted as “Moderately Important”; 0.71 -1.25 was denoted as “important”; 1.26 – 2.25 was assigned the remark of “Highly Unimportant”; 2.26 – 3.00 assigned “Moderately Unimportant”; 3.00- 4.00 was assigned as “unimportant”. This arises from the fact that it is opinions that are being evaluated and decisions made based on the standpoints of panellists.

3.5 Indicators for applicability of PPPs used in the study

The study used four indicators of applicability of PPPs, where the first one is the existence of legal, regulatory and institutional frameworks in a country, in addition to an enabling environment created by the government, in line with the Enabling markets to work strategy of 1993 by the World Bank. This could include the creation of laws that favour down-market housing, provision of housing infrastructure, incentives, and a stable socio-economic-political environment. This proposition is supported by the developers in Kenya (2018), who noted that the government should play greater enabling roles alongside the promotion of joint ventures and incremental housing construction partnerships. The government should undertake detailed and up-to-date urban development plans to create an incentive for greater participation of private entities in actual housing construction and development. Kenya has the necessary laws and institutions which can fast track the application of PPPs, including the PPP Act, 2013; PPP policy, 2011, among other regulations for effective application of the concept in housing financing, though some of the laws require amendments to fit into housing development agenda.

The second indicator for the applicability of PPPs, is the ability to address unique housing factors (which include the duality of housing as both a social and public good) and constraints that prevent effective application of PPPs in the sector. To make it acceptable to stakeholders, proponents must clearly define project goals and objectives through the formulation of a grand vision for an adequately housed nation. This is because the concept is applicable where there is broad-based stakeholder engagement and support for the process. This leads to the operationalization of strategic partnerships to address housing affordability aspects and sustainable resolution of the challenges facing application of PPPs in housing development.

The third indicator of applicability in this study was the application of the right model of PPPs suitable for housing development. This is because housing unique and does not fit the traditional goods and services delivery models. The study proposes the application of hybrid models of PPPs which combine joint ventures, land swaps, savings and cooperative societies method of incremental and gradual savings to accumulate the much-needed capital. The hybrid method presupposes that the public sector has powers to undertake adequate planning, provide housing infrastructure, guarantees and other incentives for its applicability. The pooling of resources and expertise between the public and private players is central in making the model applicable in housing delivery.

The fourth indicator of PPPs applicability is the ability of the concept to leverage the opportunities that are brought by the model to develop down-market urban housing. Such opportunities have the effect of promoting operationalization and structuring unique and workable arrangements for developing down-market urban housing through rental and owner-occupier schemes. The review of literature has shown that since the emergence of civilization, the private sector has been contracted by the public sector to undertake infrastructure and services provision. Application of PPPs goes beyond the usual contractor –client relationship to develop structured ways for an enhanced role of the private sector in housing development; reinvigorating the public sector to deliver more goods and services.

3.6 Ethical consideration in Delphi methods of research

The researcher complied with all ethical issues in Delphi research, which includes anonymity of the respondents, use of iterations among the panellists, controlled feedback mechanisms and use of statistical methods to aggregate consensus on various items. On anonymity, each member of the three panels sent their answers independently, and they were only known by the researcher, who used emails, telephone calls or face to face interactions in the process of data collection. The names of the respondents were not disclosed to anybody in the process and as such, the names remain anonymous. On the iterative process, the researcher used three Delphi rounds, which have been considered to be adequate for data collection. On the controlled feedback mechanism, the researcher utilized three Delphi panels of housing financiers, housing developers and housing practitioners who were pre-selected and contacted directly. Finally, on the statistical aggregation, all the feedback items were allocated a mean, standard deviation as measures of central tendency.

The research did not deal with any aspects of human specimens or parts (Thorstensen, 2006; Hasson et al, 2000).

CHAPTER FOUR: DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.0 Introduction

This chapter presents the analysis and interpretation of Delphi rounds one to three. Three rounds of Delphi data collection were undertaken and during each round, the answers in the preceding round formed the basis for formulating questions for the proceeding round. Round one questions were formulated based on a pre-tested survey and determined by the researcher to be questions that would elicit reactions that would be useful in addressing the research questions and objectives. Round one questions were exploratory and open-ended, whose answers provided the basis for developing round two questions, and round two answers provided the basis for formulating the third and final round questionnaires. The research utilized three panels of housing practitioners, housing financiers and housing developers.

This chapter deals with a: brief discussion and analysis of Delphi round one; brief discussion and analysis of Delphi round two; final and third round Delphi discussion and analysis; the proposed model of operationalizing the application of PPPs in down-market urban housing in Kenya. The analysis was done to answer both the specific objective of the study, which was to evaluate the applicability of PPPs in down-market urban housing in Kenya and the sub-objectives which were: to evaluate the frameworks for the application of PPPs in down-market urban housing; to determine the challenges facing the applicability of PPPs in down-market urban housing in Kenya; to outline the opportunities the PPP mode of procurement offers in the development of down-market urban housing in Kenya.

4.1 Brief Discussion and analysis of Delphi round one

i. The main purpose of this round was to elicit spontaneous thoughts from the panels on the subject matter of applicability of PPPs for the development of down-market urban housing in Kenya. Ninety (90) number questionnaires targeting the Housing Practitioners, Housing Financers and Housing Developers were sent via email and post, out of which thirty (30) number of questionnaires were returned from the Housing Practitioners (of which 28 were males and 2 females, where the lowest academic qualification was a bachelor's degree), which was 34.1% of the respondents. Thirty (30) number questionnaires were returned from Housing Financers (with 5 being females and 25 males, with the least level of education being a bachelor's degree), which was 34.1% of the respondents. Twenty-eight (28) number questionnaires were returned from

Housing developers (where 8 were females and 20 males, where all the developers had at least a bachelor's degree), which represented 31.8% of the respondents. All the panellists recorded a 100% familiarity with various PPP arrangements and projects, hence they an idea on how the concept should be applied in developing down-market urban housing.

ii. It was found out that 87.5% of the panellists had some experience with the working or applicability of PPPs in the past projects and initiatives, while 12.5% of the panels did not have prior experience in the application of PPPs in any sector, including in down-market urban housing or related sectors. The fact that over half of respondents had prior experience or familiarity with the working of PPPs would provide better research results on its applicability in developing low-income urban housing.

iii. It was found that among the areas that the panellists thought that PPPs had been applied before in the country were: Construction of housing and student hostels in the institutions of higher learning, because it has been piloted in universities like – Kenyatta, Jomo Kenyatta, Embu, Southern Eastern, Moi and Nairobi universities. The World Bank was also partnering with the government to develop housing in Naivasha through PPPs, which had a frequency of 30 or 34.1%. Secondly, the concept had been applied in the construction of roads and other transport infrastructure like railways through concessions exemplified by Rift Valley Railways, which had a frequency of 27 or 30.68%. Thirdly, the concept was found to have been used in the development of energy and related infrastructure, exemplified by the Lake Turkana, Kinangop and Ngong wind energy projects, geothermal drilling and independent power projects example the Thika IPP, which had a frequency of 21 or 23.86%.

Fourthly, the respondents stated that PPPs had been applied in the construction of tourism-related infrastructure including lodges and hotel rooms in Meru, Tsavo and Naivasha national parks in Kenya, with a frequency of 7 or 7.95%. Fifth, respondents stated that PPPs had been used in funding health infrastructure exemplified by the county equipment's schemes done for all counties in Kenya, which had a frequency of 3 or 3.41%. These applicable areas for PPPs as cited by the respondents are as presented in Table 3 below.

Table 3: Possible areas where PPPs are applicable

No	Item	Frequency	Percentage	Rank
1.	Construction of housing and student hostels	30	34.1	1
2.	Construction of roads and other transport infrastructure	27	30.68	2
3.	Energy infrastructure	21	23.86	3
4.	Construction of lodges and tourism infrastructure	7	7.95	4
5.	Health infrastructure in Kenya	3	3.41	5
Total		88	100	

Source: Author (2020).

iv. It was found out that 96.6% of the panellist was familiar with the applicable legal, regulatory and institutional environments for the application of PPPs in the construction and development of down-market urban housing in Kenya. They cited the existence of the PPP Act, 2013; PPP policy 2011; PPP amendments Bill 2017 and other laws being enacted to support the application of PPPs in the sectors of the economy, which includes the down-market urban housing. Only 3.4% of the panellists were not aware of the existing laws and regulations which govern the application of PPPs in the country.

v. It was found out that 95.5% of the panellists stated that PPPs can be applied in the development of down-market urban housing in the country in near future, while 4.5% believed that PPPs were not applicable in down-market urban housing in Kenya. The 95.5% who believed that PPPs would be applicable in the near future provided four possible ways through which the model would be made applicable. The first was that the public institutions should provide land, land banks which should be treated as equity contributions from the government side, in addition to housing infrastructure. The private players should match this up by providing modern housing construction and development technologies, capital, managerial expertise, effective, and efficient project management and implementation strategies, all of which recorded a frequency of 57 or 64.8%.

Secondly, the government should provide guarantees, targeted incentives, enabling environment, utilization of sovereign wealth funds like NSSF and other retirement benefit funds, unclaimed financial assets, providing ways for cheaper housing financing, including formulating affordable

housing loans, refurbishing dilapidated old housing estates, putting in place measures to address housing commodification challenges to attract private developers in housing, which recorded a frequency of 17 or 19.3%. Thirdly, the panellists stated that utilization of various PPP models like Build Own and Operate (BOO), Build Own and Transfer (BOT), Design Build Maintain (DBM), land swaps, joint ventures and turnkey models, at a frequency of 8 or 9.1% would accelerate its application. Fourthly, PPPs could be applicable by incorporating mixed project delivery methods for housing development example – outright sale, social housing, rental housing, tenant purchase models, incremental and cooperative housing, which had a frequency of 6 or 6.8%, as presented in Table 4 below.

Table 4: Possible ways though which PPPs could be applicable in down-market urban housing

S/No	Item	Frequency	%	Rank
1.	Public institutions - land, housing infrastructure; private parties finance actual construction	57	64.8	1
2	Government - guarantees, incentives; enabling environment & diverse financing & uptake models	17	19.3	2
3.	Utilization of various PPP models	8	9.1	3
4.	Incorporate mixed delivery methods for housing	6	6.8	4
	Total	88	100	

Source: Author (2020).

vi. It was found out that 94.3% of the panellists observed that restructuring PPPs will make the concept applicable to the development of down-market urban housing, while 5.7% believed that restructuring would not make the model applicable in the sector because of its uniqueness. 94.3% of the respondents noted that there are specific issues touching on housing delivery that should be addressed to make PPPs applicable in the sector. First, the public sector has a bigger role to play in making the concept applicable. It should provide adequate incentives like tax holidays, rebates, concessions on building materials, in addition to creating an enabling environment for optimum private sector operation. There should be targeted subsidies, off-take agreements, create room for the application of innovative financing arrangements like tapping into the sovereign wealth funds, equity financing and real estate investment trusts (REITs). It should provide housing infrastructure, review out-dated building codes, provide standard building designs and plans, fast track review of planning regulations and focus on land banking for future project implementation, which recorded a frequency of 77 or 87.5%.

Secondly, the public sector should address the housing commodification challenges, which had led to housing being taken as a dual good – social and public good, and where the social housing ideology dwells on ways of providing the same as the social responsibility of government, but which makes private developers shy away from investing in it. To make developers more attracted to the sector, it should be commodified or made tradable example through real estate investment trusts or its derivatives, which recorded a frequency of 11 or 12.5%.

On the recommendation of providing a housing unit at a range of between Kenya shillings 500,000 to 2,500,000, for a two bedroomed house, the majority, 67/88 favoured some capping of housing units produced by developers, but 21/88 favoured the development of rentals houses for the low-income urban households which should cost between Kenya 3,000 to 10,000 a month depending on the number of rooms because PPPs should be able to result in a significant reduction of housing access and rental prices.

vii. The respondents identified five major challenges likely to face the application of PPPs in down-market urban housing. First, the longer PPP transaction and implementation periods, high cost of financing, high-profit drives of private players, low resource mobilization strategies, and the existence of inadequate incentive structures. It was noted that development of appropriate incentive structures, off-take guarantees, provision of housing infrastructure, including unique housing financing strategies – credit lines, sovereign wealth funds, reducing bureaucracy and undertaking land banking and addressing housing demand and supply sides challenges, could address the challenges that arise with long transaction periods for PPPs, which had a frequency of 33 or 37.5%.

Secondly, there is likely to be the challenge of inadequate access to serviced land, with attendant housing infrastructure, alongside the likelihood that the developed housing units could be far away from the employment opportunities. It was noted that provision of housing infrastructure, adequate planning, utilization of the cooperative movements successes and collaboration with the target groups would address the challenges on inadequate access to land and housing infrastructure, which recorded a frequency of 23 or 26.1%. Thirdly, was the likelihood of inadequate PPP operationalization laws and regulations especially on social housing. It was noted countries should formulate adequate laws and regulations to spell out various aspects of PPPs, operationalize application manuals, standards and guidelines and adequate and specific

sector documents for PPPs in low-income urban housing, which recorded a frequency of 15 or 17.1%.

Fourthly, there is the likelihood of a challenge of lack of common and shared vision, goals and values for housing the urban poor and also the likelihood of occurrence of corruption and political interference in housing the urban poor through PPPs. The respondents noted that the challenge can be cured through formulation and common vision and goals for housing the low-income urban households, alongside establishing structures and frameworks to enhance PPPs applicability in down-market urban housing. This should be supported by consensus-building towards housing the urban poor and the establishment of PPP champions and pacesetters, which recorded a frequency of 10 or 11.4%.

Fifth, there was the likely challenge of inadequate knowledge on how PPPs can be structured to be effective in developing low-income urban housing. Various stakeholders may be faced with the challenge of inadequate know-how on structuring, implementing, and creating awareness and uptake of the PPP concept. The respondents noted the need for sensitization and awareness creation on how PPPs work, alongside capacity-building, training and innovative financing of PPPs, which recorded a frequency of 7 or 7.9%, as highlighted in table 5 below.

Table 5: Challenges and solutions to the applicability of PPPs in down-market urban housing

S/No	Item	Item	Frequency	%	Rank
1.	Longer PPP transactions time	Development of appropriate incentives & enabling environment	33	37.5	1
2.	Inadequate access to serviced land	Provide housing infrastructure & adequate planning	23	26.1	2
3.	Inadequate PPP operationalization laws and regulations	Formulating up to date laws & regulations	15	17.1	3
4.	Lack of common vision, goals & values	Formulate common goals, vision & objectives	10	11.4	4
5.	Inadequate knowledge on PPPs, structuring, implementation	Sensitization & awareness creation; capacity building	7	7.9	5
Total			88	100	

Source: Author (2020).

Further, the respondents provided various measures that the national and county governments can undertake to make PPPs applicable in down-market urban housing. First, the national

government should review and amend the existing laws and regulations on PPPs while enacting housing sector-specific laws and regulations. The county governments should customize the national PPP laws and regulations in addition to creating county PPP institutions, which had a frequency of 48 or 54.5%. Secondly, the national government should provide adequate incentives, structures and guarantees for the operationalization of PPPs, alongside the installation of social and physical infrastructure, utilizing diverse funding strategies and land banking. The counties should create local incentives including land banking, housing infrastructure, local economic development, operationalize cross-county partnerships, county planning, master plans for housing and urban development and improving own sources of revenue and incomes, which had a frequency of 23 or 26.1%.

Thirdly, the national government should create awareness on how PPPs utilization as an alternative development method, enhance training and curriculum development on PPPs, enhance public participation process in public projects including on PPPs and customize international best practices to local situations. The national government should seek international support and funding while creating autonomous PPP institutions. The counties should develop local skills for the operationalization of PPPs, create awareness on why PPPs are an important component in development at the local level by partnering with technical and vocational training institutes, which had a frequency of 17 or 19.4%, as illustrated in table 6 below.

Table 6: Roles for national and county governments in making PPPs applicable in down-market housing

S/No	Item	Item	Frequency	%	Rank
1.	Review PPPs laws to fit housing conditions	Customize national PPP laws & policies	48	54.5	1
2	Provide adequate incentives & guarantees	Create incentives at the local level	23	26.1	2
3	Create awareness on application of PPPs	Develop local skills & create awareness for PPP developments	17	19.4	3
Total			88	100	

Source: Author (2020).

On public land being used for PPPs in housing development, 86.4% of the respondents supported the idea, while 13.6% believed that public land should not be used for down-market urban housing, as this amounts to privatizing the government land through the backdoor. Of those who

supported the utilization of public land for housing development through PPPs, they noted that the arrangement can be structured in different ways to yield maximum results and that the public sector can use such land as equity contribution in the down-market urban housing project, which is an incentive for private developers. Public land could be serviced and housing infrastructure provided, alongside the activation of affordable leases in such pieces of land. Partnerships can be activated in land that is near places of work or along adequate transport corridors like near railway lines, which means that down-market urban housing should be well planned to cater for transport, energy, water, electricity and other necessary infrastructure through master planning.

Public land should form the basis for implementing joint ventures between public authorities and potential developers, where adequate structuring should enable private entities to have a return on their investments. In cases where this takes time, the public sector should undertake part financing and activation of various guarantees and incentives. This will have a bearing on the cost element in the final units, which makes them affordable to low-income urban households, which can only be achieved through adequate and balanced structuring of the PPP arrangements.

It was found out that 97.7% of the panellists observed that PPPs can benefit from the concepts and practices of the Harambee spirit which has been practiced in Kenya for many years, while 2.3% of the panellists thought that PPPs cannot benefit from the Harambee spirit. Some of the features of the Harambee spirit deemed appropriate for PPPs include mobilization of resources like buying land, savings and the practice of beneficiaries providing labour in the housing construction as sweet equity.

The efforts undertaken by organized groups can then be complemented by the government by offering housing infrastructure, regulations, laws and policies and guarantees as their contribution to the process. The developers on the other hand bring adequate financing, technology, managerial prowess, efficiency and effectiveness in the construction of the housing units.

viii. It was found out that the application of PPPs mode of procurement has many benefits to the public and private entities involved in the construction of down-market urban housing. First, to the public sector, it brings about adequate capital and financial resources mobilization by the private entities which ensures projects are delivered on time. Private entities can access cheaper financing from many diverse sources than the governments, this removes the constraints of

capital from governments. There are many equity firms, insurance firms and venture capital groups willing to invest in such projects provided that they have their interests well taken care of and guaranteed. Private entities' participation in PPPs for down-market urban housing introduces better technologies, effectiveness, value for money, adequate risk management and apportionment, which eliminates chances of project failures. Private parties have more expertise in undertaking down-market urban housing than the public sector, through which they make projects to be completed on time, budget and as per the agreed standards. Despite the many benefits of PPPs brought by private entities, their participation in down-market urban housing in Kenya has not been realized.

There are six reasons as to why PPPs have not been actualized in down-market urban housing in Kenya: The first one is the existence or the likelihood of incompatible project goals, vision, objectives and motivations of the public and private players, where on one side the public sector is for public good and interests, but private players exist to make profits, which had a frequency of 35 or 39.8%. Secondly, there is the likelihood of bureaucratic red tapes, disincentives and poor investment climate, which has an implication on how special purpose vehicles or companies are formed, and how they remain in business as a result of applicable taxes and incentives, all of which are likely to hinder effective private sector participation in PPPs for housing development. This is in addition to the commodification of housing and the unavailability of serviced land with housing infrastructure, which recorded a frequency of 23 or 26.1%.

Thirdly, there is limited awareness on how PPPs should work and how they should be structured, which had a frequency of 12 or 13.6%. Fourthly, the existence of non-responsive policies, laws and regulations which contributed to uncertainties on investments made by private developers, which had a frequency of 10 or 11.41%. The fifth was the existence of inadequate long term financing structures for PPPs in the development of down-market urban housing, with a frequency of 8 or 9.09%, all of which are highlighted in figure 8 below.

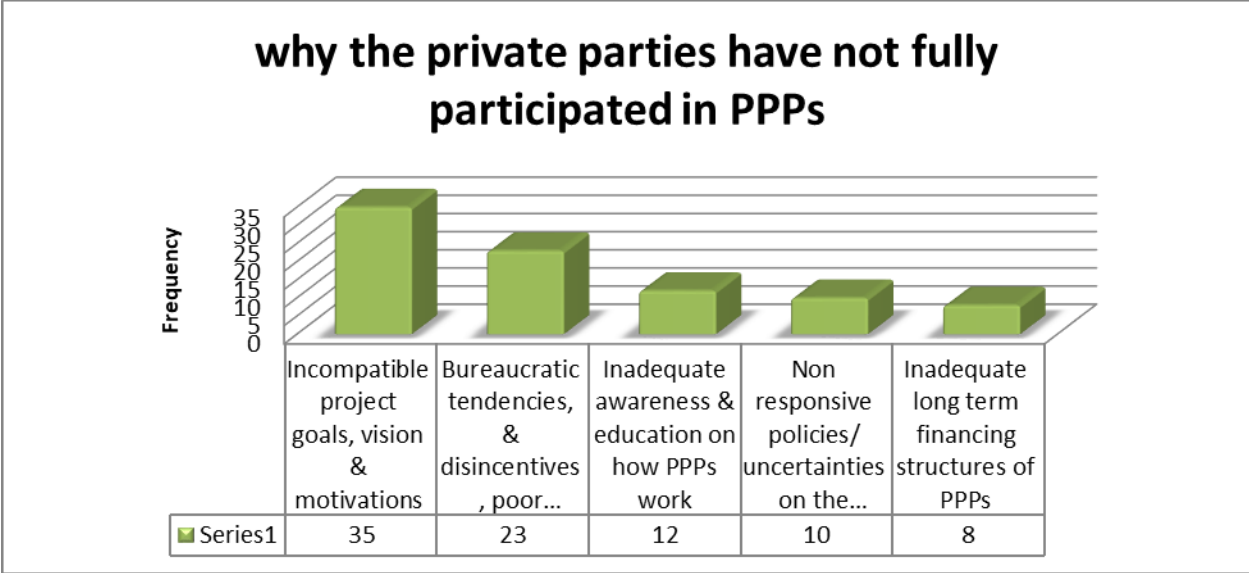


Figure 8: Why private parties have not fully participated in PPPs for down market urban housing
Source: Author (2020).

The panellists provided four major constraints likely to face the application of PPPs for down-market urban housing in Kenya. Firstly, is the existence of knowledge and information gaps, inadequate access to data on PPPs and the knowhow to structure PPPs, which has limited the application of the concept to address the ever-increasing demand for affordable and adequate housing. Secondly, there are many risk factors likely to be realized in the course of applying PPPs for down-market urban housing, which must be properly addressed to attract more private developers. There are high costs of financing and high inflation rates, due to the long-term nature of PPPs, in addition to inadequate technologies and expertise in PPPs application. Thirdly, is the long term nature of PPP projects, the associated bureaucracy in PPPs approval, weak enforcement mechanisms and legal processes which are not conducive to PPPs application in the country. The majority of the existing laws are more favourable to hard physical infrastructure and not to social infrastructure like housing. Fourth is the existence of limited incentive structures for the PPPs application, which is compounded by inadequate social and physical infrastructure, inadequate commodification of housing and the attendant pricing of the completed housing units.

The panellists highlighted five major lessons key in pushing the agenda of PPPs application in developing down-market urban housing: First, the PPP concept is a workable and applicable idea

in the financing of infrastructure, it is an ideal venture through which the public sector can deliver the much needed housing supply, hence stakeholders, therefore, need to explore and utilize PPPs in housing development. Secondly, there is need to set up PPP champions and pace setters for others to learn from, alongside the need for stakeholders to come up with various models like joint ventures, turnkey and a mixture of models as applicable, including land swap to hasten the PPP process in the country. There is need to develop standard procedures, processes, and favourable and attractive guarantees for increased uptake of PPP projects.

Thirdly, there is need for proper structuring of PPP transactions and programmes to ensure that the projects operationalize win-win PPP situations, which relies on diverse models to suit the local demands. Such models should put in place entry and exit clauses, key performance indicators and standards. Fourthly, there is need to build local expertise on PPPs application, establish the roles of the parties clearly, ensure legally binding contracts are actualized. Fifth, there is need to address the challenges which make PPPs in down-market urban housing not applicable, which should be done through simplification of the legal and procedural aspects of PPPs, which will incentivize the private entities into PPPs.

4.2 Brief Discussion and analysis of Delphi round Two

i. At the onset, six parameters or preliminary items in the application of PPPs in down-market urban housing were gauged and ranked as per the number of mentions or frequency from the panellists. These were: first, 77% of the respondents in round one had experiences in the utilization of PPPs for the delivery of infrastructure, which had a frequency of 274 or 25%. Secondly, 95% of the respondents in round one had noted that PPPs are applicable in down-market urban housing, which in the second round attained a frequency of 187 or 17%. Thirdly, 53 out of 88 respondents in round one had noted that PPPs have been used in the development of down-market urban housing, which had a frequency of 181 or 17% in round two. Fourthly, 97% of respondents in round one had stated that they were aware of the legal and institutional frameworks for PPPs application in Kenya, which recorded a frequency of 175 or 16%. Fifth, 100% of respondents in round one pointed out that they were familiar with the applicability of PPPs, which recorded a frequency of 154 or 14%. Sixth, it was noted that 94% had stated that structuring can make PPPs applicable in down-market urban housing, which recorded a frequency of 124 or 11%, as illustrated in figure 9 below.

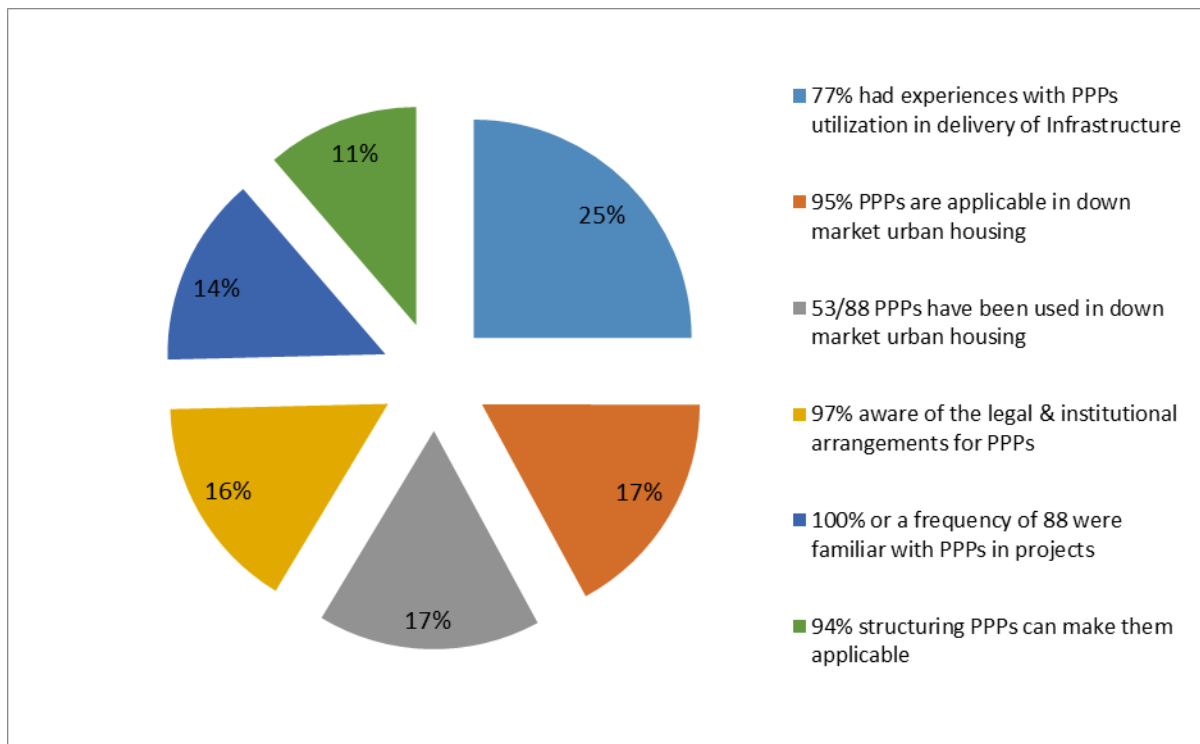


Figure 9: Preliminary issues in the applicability of PPPs in down market urban housing
Source: Author (2020).

i. The panellists provided some possible ways in which PPPs could be made applicable in down-market urban housing in Kenya. Seven number (7) possible ways and methods were identified and ranked. The first was there will be need for the country to rely on successful case studies from international developers and financing institutions, which should be customized at the local level for housing development, which recorded a frequency of 192. Secondly, there was the need to make the legal and regulatory environment suitable and fitting for the application of PPPs in developing down-market urban housing, which recorded a frequency of 144. Thirdly, the government should use diverse sources of financing down-market urban housing through the utilization of sovereign wealth funds to come up with cheaper housing, which recorded a frequency of 128. Fourth, there is need to address housing commodification challenges especially in the demand and supply sides of housing development, including making housing products and derivatives tradable in small sections, which recorded a frequency of 125.

Fifth, the government should provide housing infrastructure while investors should provide innovative capital, technology, innovative development approaches and managerial prowess in

housing development, which recorded a frequency of 120. Sixth, there is need to utilize various PPP models like joint ventures, turnkey, land swaps among others, which recorded a frequency of 119. Seventh, it was noted that the government should offer guarantees, enabling framework and targeted incentives, which recorded a frequency of 103, as illustrated in figure 10 below.

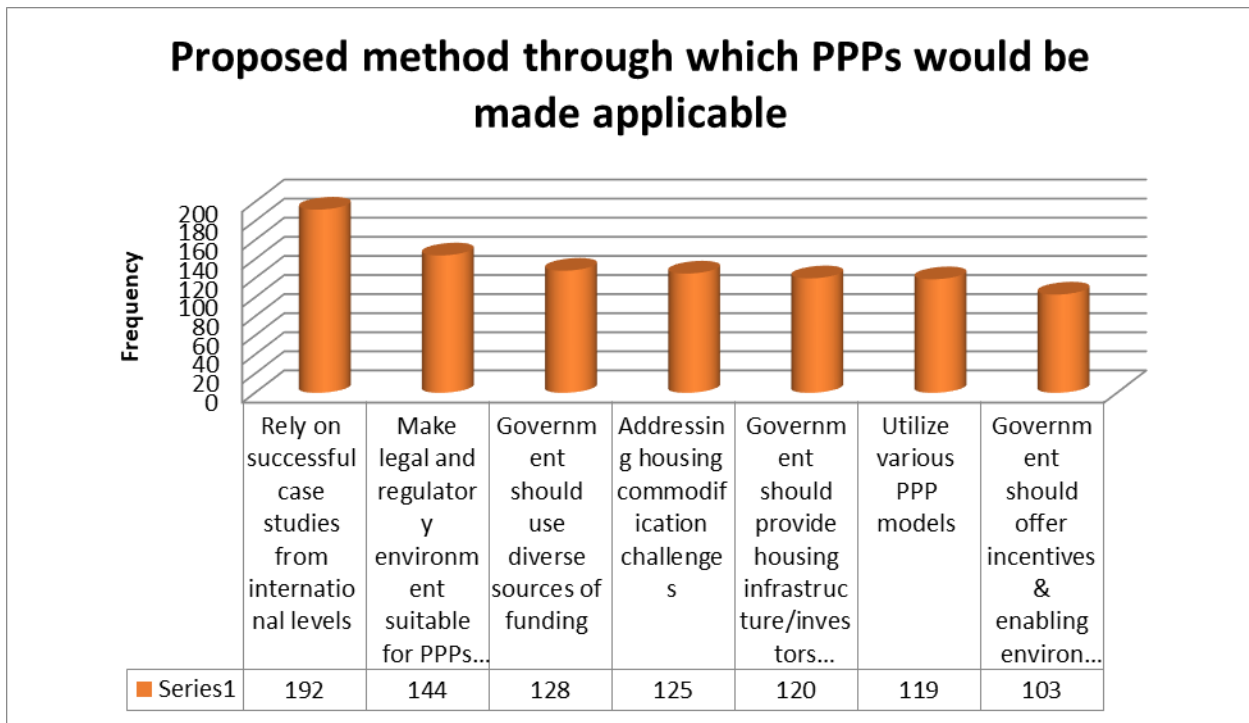


Figure 10: Proposed methods through which PPPs can be made applicable in down market urban housing.

Source: Author (2020).

It was further noted that several factors make housing provision, especially down-market urban housing a challenge to develop, and such challenges must be addressed adequately for the concept to be applicable. The panellists identified five such unique factors to be: First, Stakeholders should address housing commodification challenges which have limited the application of innovative financing options to the sector, which recorded a frequency of 138. Secondly, the government should avail serviced land and housing infrastructure in addition to standard designs, construction manuals and housing typologies, which recorded a frequency of 124. Thirdly, the government should provide an enabling environment for the optimum operation of the private sector in the application of PPPs, which recorded a frequency of 114. Fourth, utilization of technology, innovative financing, clear project development objectives, project delivery, financing and uptake models, which recorded a frequency of 107; fifth, there was need for stakeholders to form strategic partnerships to maximize on the strengths and benefits arising

from the working arrangements, which recorded a frequency of 106, these factors are highlighted in figure 11 below.

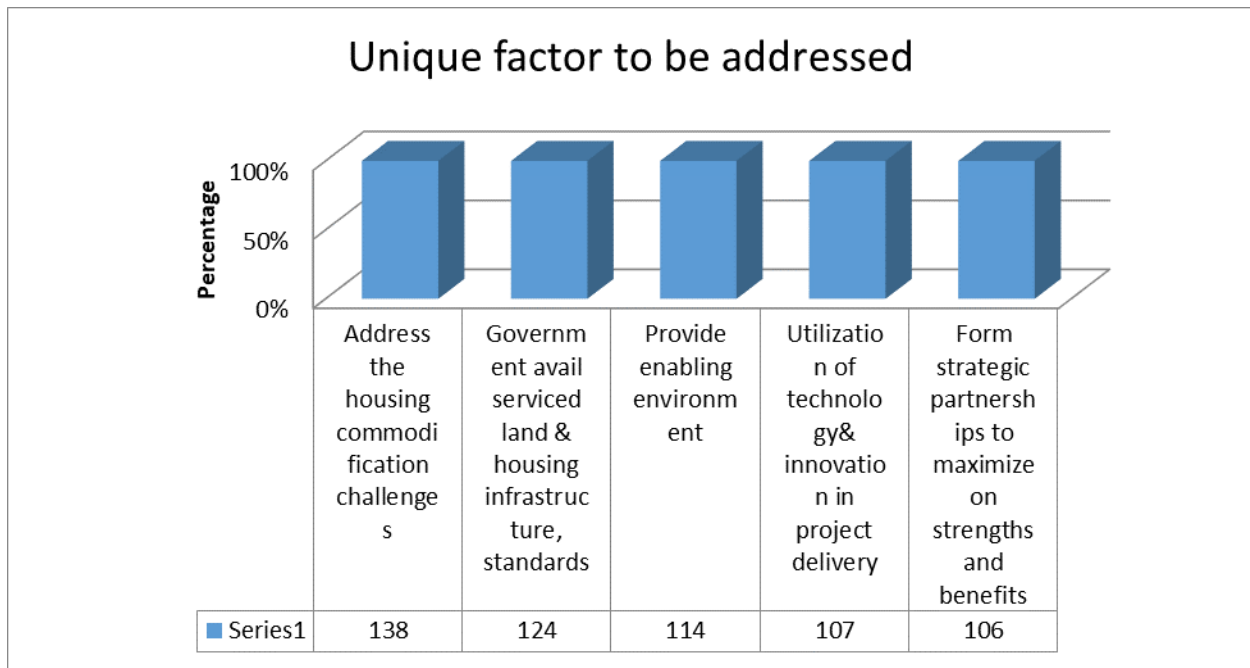


Figure 11: unique factors to be addressed to make PPPs applicable in down market urban housing

Source: Author (2020)

ii. The panellists identified six challenges facing the application of PPPs in down-market urban housing. The first one was the long periods taken for investors to recoup their investments, which has a bearing on the willingness of private players to develop such infrastructure, which had 24.2%. Secondly, panels cited the likelihood of political interferences in undertaking PPP projects, corruption in the tendering and allocation of developed housing units, low resource mobilization especially for low-income urban households, which recorded 19.5%. Thirdly, there is the challenge of inadequate laws, regulations, institutional structures, and poor operating and enabling environment, which recorded 15.3%.

Fourth, there is inadequate availability of serviced land with adequate housing infrastructure which would lower the cost of putting up housing units under the PPP arrangements, which recorded 15%. Fifth, there is inadequate knowledge and awareness on how PPPs frameworks function, which recorded 14%. Sixth, there is a lack of common and shared vision on the need to house the low-income urban households, lack of champions, existence of conflicts on common

approaches for housing the urban poor and resistant from developers to finance unprofitable sectors like down-market urban housing, which recorded 12%, this is highlighted in table 7 below.

Table 7: Challenges facing application of PPPs in down-market urban housing

S/No	Item	Percentage	Rank
1.	Long periods taken to recoup investments & implement projects	24.2	1.
2.	Political interference, corruption & low resource mobilization	19.5	2.
3.	Inadequate laws, institutional structures & enabling environment	15.3	3.
4.	Lack of serviced land with housing infrastructure	15	4.
5.	Inadequate knowledge and awareness on how PPPs works	14	5.
6.	Lack of common shared vision, champions, conflicts	12	6.

Source: Author (2020).

iii. The respondents provided five major ways through which such challenges would be addressed to make the concept of PPPs applicable in housing low-income urban households. First, they pointed out the need to undertake sensitizations, awareness creation, formulation of common goals and establishment of PPP champions and pacesetters to create momentum for the application of PPPs, which recorded 22%. Secondly, there is need to structure PPPs in special ways which take into consideration the uniqueness of PPPs and low-income urban housing, which has not been financed as it should be, which recorded 21.3%. Thirdly, the stakeholders should scout for cheaper and innovative housing financing options, including utilizing the cooperatives in Kenya for mobilization of resources and increasing the uptake of developed houses, which recorded a 20% frequency. Fourthly, there is need to provide incentives to the private developer, including offering public land, serviced land, housing infrastructure, adequate and targeted guarantees, subsidies, in addition to developing housing units near places of employment, which recorded a frequency of 20%. Fifth, the public sector should formulate adequate laws, regulations including amending existing ones to make them suitable for facilitating the development of down-market urban housing, which recorded a frequency of 16.7%. This is as highlighted in table 8.

Table 8: Addressing the challenges facing the application of PPPs

S/No	Item	Percentage	Rank
1.	formulate common goals & establish champions, sensitization	22	1
2.	Structure PPPs to respond to unique housing characteristic	21.3	2
3.	Scout for cheaper housing financing options	20	3
4.	Provide incentives	20	3
5.	Formulate adequate laws, regulations	16.7	5

Source: Author (2020).

iv. The panellists noted that the national and county governments should undertake five roles to play to make PPPs applicable to the development of down-market housing. The first one was that there is need to create adequate awareness, pacesetters and PPP champions who will promote the active application of PPPs in the sector, which recorded 32% frequency. Secondly, there is need to scout for international practices on the application of PPPs and customize the same to the local situations and conditions, which recorded a frequency of 26%. Thirdly, the public sector should provide adequate incentives for innovative financing, including utilizing the cooperatives for resource mobilization and uptake of the developed houses, which recorded 24% frequency. Fourthly, the public sector should install housing infrastructure, undertake land banking and increase the uptake of developed units through cooperatives to enhance the sustainability of the PPP concept in housing development, which recorded a frequency of 18%. Fifth, the public should create an enabling environment and enhance the capacity of the government institutions to implement PPP arrangements in the country, which recorded 16% frequency, as highlighted in figure 12 below.

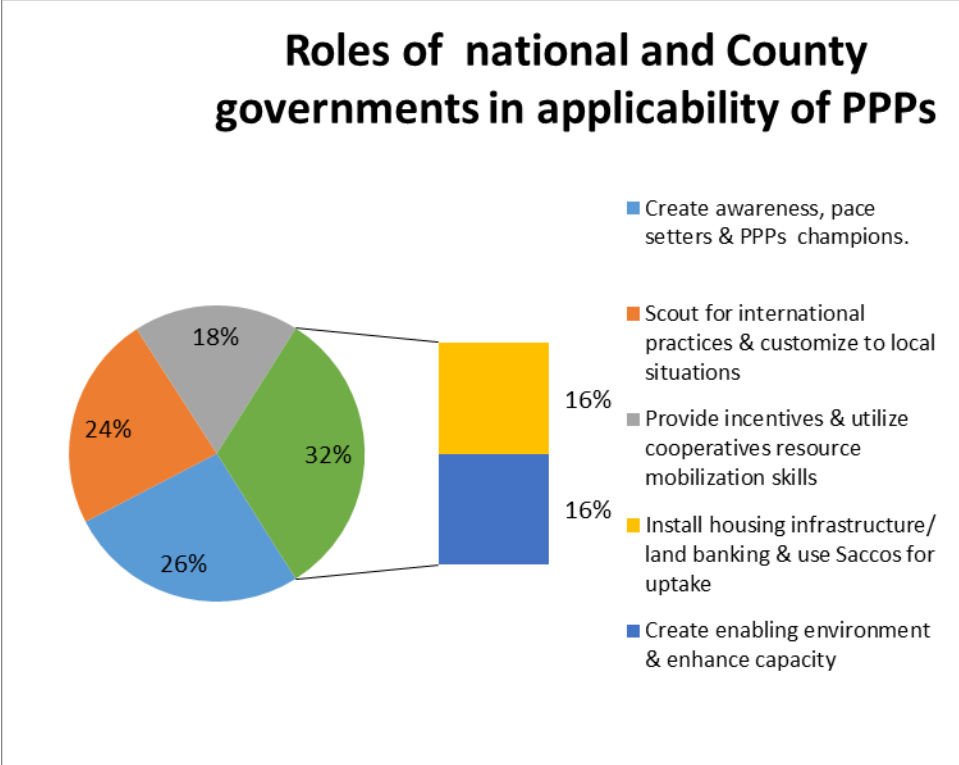


Figure 12: Roles of national and county governments in making PPPs applicable

Source: Author (2020).

v. The panellists noted that in cases where institutions in the public sector provide land for down-market urban housing, PPPs can be structured in four major ways to make the concept applicable. The first way is by converting such land allocated for housing development into government equity contribution, hence reducing the fiscal pressure which makes the project viable, which recorded a frequency of 29 or 33%. The second way was stated as undertaking joint ventures with the private developers on such land and structuring the deal in a way that gives room for the investors to recoup their investment, which had a frequency of 24 or 27%. The third was for the public sector to partner only with developers who have adequate capacity in terms of technology, innovation, finance and effective project delivery methods, which recorded a frequency of 18 or 20.4%. Fourthly, the public sector should provide social and physical infrastructure on such land allocated for housing the urban poor. This should be done in addition to developing such housing units near places of work and where the area is served by adequate transport infrastructure, which had a frequency of 17 or 19.6%.

These possible ways of structuring the arrangement where the public sector allocates land for down-market urban housing is illustrated in table 9 below.

Table 9: Ways of structuring PPPs where public land is involved

S/No	Item	Frequency	Percentage	Rank
1.	Government land treated equity contribution	29	33	1.
2.	Undertake joint ventures (JVs).	24	27	2.
3.	Partner with capable developers	18	20.4	3.
4.	Provide social and physical trunk infrastructure	17	19.6	4.
Total		88	100	

Source: Author (2020).

vi. The panellists provided four major reasons which have hindered the full participation of the private sector in PPPs for down-market urban housing. Four such constraints were highlighted including inadequate financing structures and models for PPPs, which may include cumbersome project company (SPV) incorporation and the risky nature of the PPPs for down-market urban housing, which recorded a frequency of 27 or 30.6%. Second, is the long time it takes to structure and develop a PPP project because of the many contractual and stakeholder engagement activities required before the project can commence. There is the likelihood of political interference, uncertainties for investors and inadequate clarity on the side of the public sector on the acceptability of PPPs in some sectors like housing development, which recorded a frequency of 27 or 30.3%.

Third, there is the likelihood of inadequate sensitization, awareness creation and education on the need for increased application of PPPs in developing down-market urban housing. There is the likelihood of disjointed and hence lack of common vision and goals on the rationale for housing the urban poor, which is jeopardized further by complicated legal and institutional arrangements, which recorded a frequency of 18 or 21.3%. Fourth, there is the likelihood of inadequate incentives, structures and commodification challenges for housing development, in addition to bureaucracy and inadequate structuring of PPPs, which recorded a frequency of 16 or 17.8%, as illustrated in table 10 below.

Table 10: Hindrances to effective private sector participation in PPPs

S/No	Item	Frequency	Percentage	Rank
1.	Inadequate financing structures & models for PPPs	27	30.6	1.
2.	Long periods for PPP projects implementation & uncertainties	27	30.3	2.
3.	Inadequate sensitization, common vision & goals	18	21.3	3.
4.	Inadequate incentives structures,	16	17.8	4.
TOTAL		88	100	

Source: Author (2020).

vii. The panellists further note that apart from the stated hindrances to the private sector participation in PPPs, five major constraints faced the private sector in the application of PPPs in down-market urban housing. The first constraint was cited as the inadequate incentive structures alongside poorly developed housing infrastructure in addition to social and physical infrastructure, which has the effect of reducing the cost of developing housing units, which recorded a frequency of 25 or 28.5%. Secondly, the pricing of housing units because of the various inputs by the private sector would not be within reach of many low-income urban households, which has implications on how fast investors can recoup their money. The commodification of housing also has reduced the available financing options for example from the stock market, which recorded a frequency of 20 or 22.8%. Thirdly, developers cited a long and tedious project approval process which has implications on how fast projects can commence and hence a bearing on the time it takes to recoup investments made, which recorded a frequency of 20 or 22.4%.

Fourthly, there is the likelihood of occurrence of many risks in the process of undertaking PPPs for down-market urban housing, in addition of high cost of finance, inflation and corruption, which increases the probability of risks occurring in the implementation of the PPP project, which recorded a frequency of 18 or 20.3%. The fifth was cited as the likelihood of inadequate knowledge and information gaps on PPPs, in addition to inadequate data, technologies and structuring of PPPs, which had a frequency of 5 or 6%, as illustrated in table 11 below.

Table 11: Constraints facing private sector participation in down-market urban housing PPPs

S/No	Item	Frequency	Percentage	Rank
1.	Inadequate incentives structures, infrastructure	25	28.5	1.
2.	Price of housing units against income levels	20	22.8	2.
3.	Long & tedious approval processes	20	22.4	3.
4.	Risk factors, high cost of financing, inflation	18	20.3	4.
5.	Knowledge & information gaps, & structuring	5	6.0	5.
Total		88	100	

Source: Author (2020).

viii. The panellists provided six lessons that can be used in the process of applying PPPs in the development of down-market urban housing. The first lesson is that countries which intend to use PPPs should develop standard manuals, procedures and for housing, there should be developed standard housing designs and typologies, which reduce the cost of design and professional labour, which recorded a frequency of 21 or 23.6%. Second, the public and private entities should utilize joint ventures between themselves depending on the suitable models for such ventures, which recorded a frequency of 17 or 18.8%. Thirdly, stakeholders should undertake proper structuring of PPPs to ensure that the arising relationship leads to win-win situations for parties, which recorded a frequency of 14 or 15.8%.

Fourthly, there is need to establish PPP champions, pace-setters who will act as a rallying point for PPPs application. This should be done in addition to utilizing case studies and setting key performance indicators which should be used to effectively gauge the best bid from the private sector, which should be in addition to setting clear roles for each partner, which recorded a frequency of 12 or 15.2%. Fifth, there was need for countries to build local expertise for undertaking PPP transactions and customize international experiences to the local situations, which recorded a frequency of 11 or 13%, as summarized in table 12 below.

Table 12: Lessons learnt for application of PPPs in low-income urban housing

S/No	Item	Frequency	Percentage	Rank
1.	Develop standard manuals, procedures & standard designs	21	23.6	1.
2.	Use joint ventures, turnkeys & mixture of models	17	18.8	2.
3.	Proper structuring of win –win PPPs	14	15.8	3.
4.	Establish champions, pace setters; case studies, KPI	13	15.2	4.
5.	Reduce bureaucracy & contracts legally binding	12	13.6	5.
6.	Build local expertise & use international experiences	11	13	6.
Total		88	100	

Source: Author (2020).

ix. Finally, the panellists provided six observations that should be utilized in the process of developing PPPs for down-market urban housing. The first one was that PPPs is an idea that is gaining more prominence and which countries can tap into to reduce their project financing deficits. Such countries should methodically implement the concept for adequate utilization and results, which recorded a frequency of 19 or 21.1%. Secondly, there is need for countries to develop housing models that are suitable for local situations and which use locally available materials. This should be supplemented by the use of cooperatives for access to resources like land and uptake by members, in addition to the public sector providing housing infrastructure, financial guarantees, which recorded a frequency of 19 or 21.1%. Thirdly, the success of PPPs depends on heavy government investment in the programme through incentives, laws, institutions, part financing and creating an enabling environment, which recorded a frequency of 13 or 15.1%.

Fourthly, the stakeholders in a country which intends to apply PPPs should work together to address the likely challenges in the application of PPPs, create an enabling environment and setting up special housing financing funds and institutions, which recorded a frequency of 13 or 14.6%. Fifth, the government should incentivize the private sector through elaborate incentive structures, which are targeted enough to reach the actual targets of the incentives, in this case, the low-income urban households, which recorded a frequency of 12 or 14.1%. Sixth, there is need to simplify the PPP application procedures, processes by developing standard housing designs, typologies, costing, and other innovative financing models, which recorded a frequency of 12 or 14%, as illustrated in table 13 below.

Table 13: Observations key on the application of PPPs

S/No	Item	Frequency	Percentage	Rank
1.	PPPs are applicable but requires careful implementation	19	21.1	1.
2.	Develop models of housing suited to local situations	19	21.1	2.
3.	Need for heavy government investment	13	15.1	3.
4.	Address challenges in PPPs, enabling environment	13	14.6	4.
5.	Government to incentivize private sector	12	14.1	5.
6.	Simplify PPP procedures & processes,	12	14	6.
Total		88	100	

Source: Author (2020).

4.3 Final and third round Delphi Discussion and analysis

This is the final round during which the actual measurement of the strengths of each statement and argument were tested through the calculation of the mean and the standard deviation. The mean was used to show how close to the average or centre a given statement was while the standard deviation was used to show how such a statement differed from the mean. This design follows the standard deviations and means interpretation in data as used by Somerville, 2008; Hasson et al., 2000 and Mitchel, 1991.

The study's main objective was "To evaluate the applicability of PPPs for down-market urban housing in Kenya", which was tested through three major sub-objectives. To effectively address these propositions, the statements of each panel on all the matters under inquiry were taken and measured.

i. The first objective was to evaluate the frameworks for the application of PPPs in down-market urban housing in Kenya

The assessment of this objective began with the measurement of the preliminary issues which are central in the application of PPPs in down-market urban housing in Kenya. Six issues of a general nature and which arose from the first to the second rounds were gauged as per panel, and these were whether: the structuring of PPPs can make the concept applicable in down-market urban housing; PPPs have been used before in some areas related to housing; PPPs are applicable in down-market urban housing; there is consensus on the application of PPPs; there are laws,

regulations and institutions in Kenya to support the application of PPPs; there exist general knowledge and experiences on PPPs application in Kenya.

The Housing Financiers ranked the six preliminary issues as follows. On whether structuring PPPs can make it applicable in down-market urban housing, they ranked it with a standard deviation of 0.35 or 14%, and on whether PPPs have been used before in some areas of down-market urban housing, they ranked it with a standard deviation of 0.35 or 14%. Thirdly, they ranked the statement that PPPs are applicable in down-market urban housing with a standard deviation of 0.37 or 14%. Fourthly, they ranked the statement that there is a consensus on the need for the application of PPPs in Kenya at a standard deviation of 0.39 or 15%. Fifth, they ranked the statement that there are laws, regulations and institutional support in the application of PPPs for down-market urban housing, at a standard deviation of 0.53 or 21%. Sixth, they ranked the statement that there exists general knowledge in the application of PPPs in Kenya, at a standard deviation of 0.58 or 22%.

These rankings by the housing financiers show that the first four items were highly important to them as regards preliminary issues in the order of: 1. Structuring PPPs can make the concept applicable; 2. PPPs have been used before in other sectors related to housing; 3. PPPs are applicable in down-market urban housing; 4. there exists a consensus on the applicability of the concept in housing. This ranking by housing financiers is presented in figure 13 below.

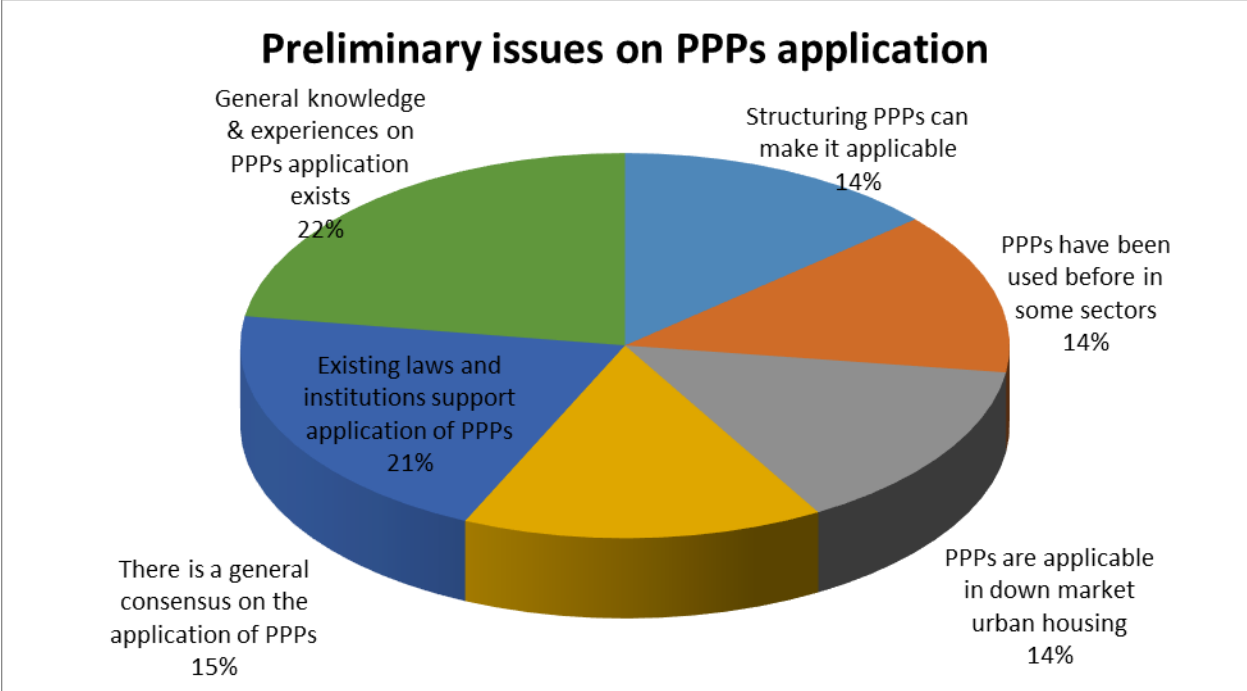


Figure 13: preliminary issues in the application of PPPs by Housing Financiers
Source: Author (2020).

Housing developers differed with housing financiers regarding preliminary issues in the application of PPPs. The first statement was that structuring PPPs can make the model applicable in down-market urban housing, with a standard deviation of 0.3 or 12%. Secondly, PPPs have been used before in some areas of down-market urban housing, with a standard deviation of 0.4 or 17%; Thirdly, there are laws, regulations and institutional support in the application of PPPs for down-market urban housing, with a standard deviation of 0.4 or 17%; Fourthly, there exists general knowledge in the application of PPPs in Kenya, with each scoring a standard deviation of 0.4 or 17%. The fifth was the statement that PPPs are applicable in down-market urban housing, with a standard deviation of 0.5 or 21%; sixth, there is a consensus on the need for the application of PPPs in Kenya, with a standard deviation of 0.5 or 16%.

These rankings show that for the housing developers, four major items are highly important: 1. Structuring PPPs can make the model applicable; 2. PPPs have been used before in other sectors; 3. There are laws and regulations which exist to support PPPs application; 4. There exists some know-how on PPPs application. This ranking is presented in figure 14 below.

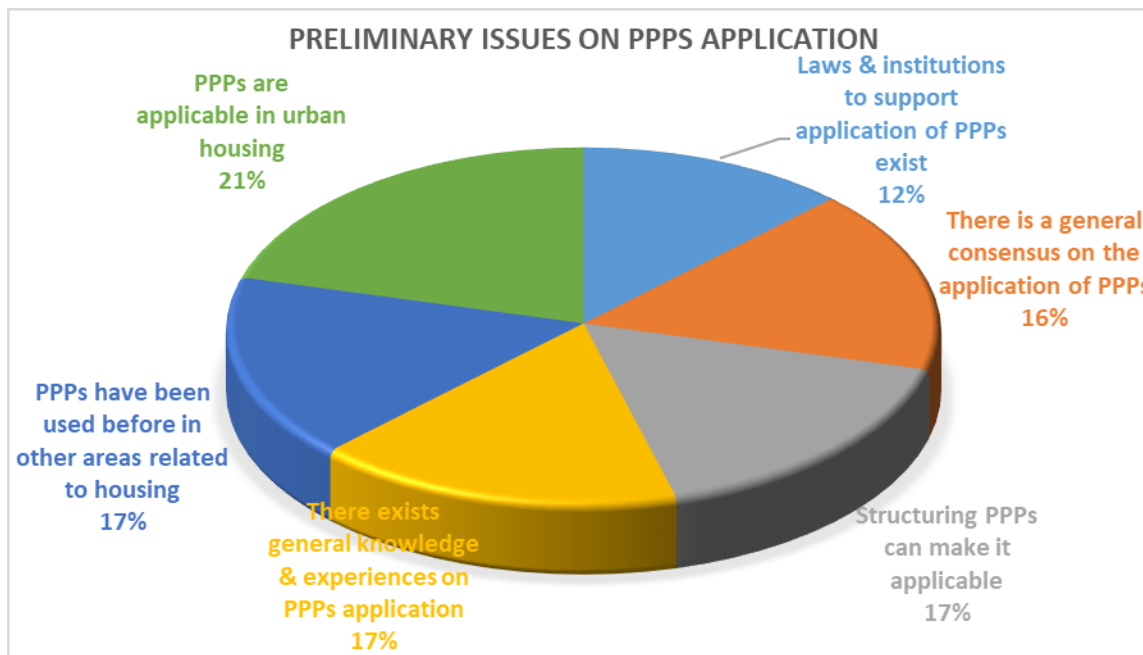


Figure 14: Preliminary issues in the application of PPPs by Housing Developers

Source: Author (2020).

Housing Practitioners differed further with the other two panels in the ranking of the preliminary issues. Their first ranking was the statement that there are laws, regulations and institutional support in the application of PPPs for down-market urban housing, with a standard deviation of 0.3 or 12%. Secondly, there is a consensus on the need for the application of PPPs in Kenya as a result of the financing challenges facing the government, with a standard deviation of 0.4 or 16%; thirdly, structuring of PPPs can make them applicable in down-market urban housing, with a standard deviation of 0.4 or 17%; fourthly, there exists general knowledge in the application of PPPs in Kenya, with a standard deviation of 0.4 or 17%; fifth, PPPs have been used before in some areas of down-market urban housing, with the four scoring a standard deviation of 0.4 or 17%. Sixth, they noted that PPPs are applicable in down-market urban housing, with a standard deviation of 0.5 or 21%.

These rankings show that for the housing practitioners five issues are highly important: 1. Laws and institutions to support PPPs exist; 2. There exists a consensus on the application of PPPs; 3. Structuring PPPs can make the concept applicable; 4. There exists some knowhow on the application and experiences with the concept; 5. PPPs have been used before in other sectors of the economy, as illustrated in figure 15.

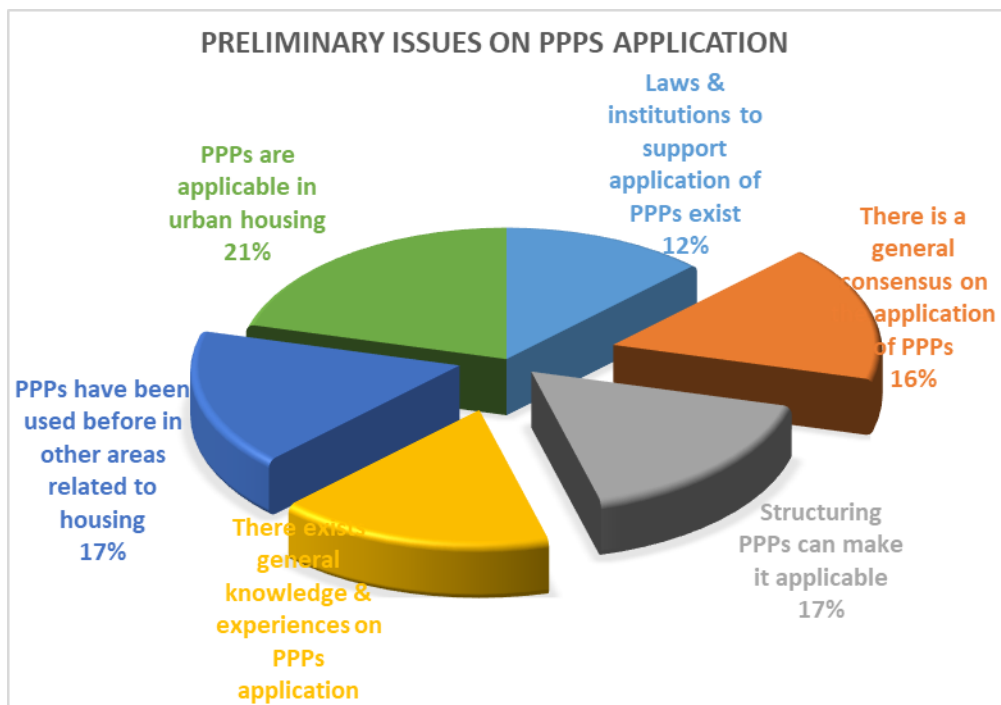


Figure 15: Preliminary issues in the application of PPPs by Housing Practitioners

Source: Author (2020).

A combined ranking of the opinions of the three panels was further undertaken to make a conclusive ranking which takes into account individual prioritization and opinions, out of which the first ranked item was the issue that PPPs are applicable in the development of down-market urban housing with a standard deviation of 0.31. This was because of the challenges facing the public sector and the neglect of the sector by the private players, hence the need for partnerships exemplified by PPPs to address financing, technology, new management, innovation and efficiency in public service delivery. Secondly, they ranked the issue of the availability of legal, regulatory and institutional arrangements for PPPs application in Kenya, with a standard deviation of 0.35. They cited various laws enacted for PPPs application including the PPP Policy 2011, PPP Act, 2013, PPP National regulations 2014 and PPP project facilitation fund regulations, 2017. The project facilitation funds regulations 2017 for example, aims to assist contracting authorities in procuring PPP projects through grants, loans, equity, guarantees and other financial instruments, thereby providing viability gap funding (VGF) and liquidity for contingent liabilities among other facilitative activities.

The third issue in ranking was that the respondents believed that structuring PPPs can make the models applicable in down-market urban housing, at a standard deviation of 0.36, and such

structuring should address legal, regulatory and institutional arrangements, which will give stakeholders confidence in embracing PPPs in housing development. The unique characteristics and demands of developing down-market urban housing require adequate structuring and formulation of enabling reforms, which will pave way for the enactment of special institutions, funds and resource mobilization strategies. Fourth, respondents ranked the statement that there was some level of general knowledge and experiences on PPPs application, at a standard deviation of 0.61. This was borne out of the fact that the country had implemented projects in energy, water, transport and other infrastructure to completion, and various ministries have attempted some form of PPPs in service delivery, including Housing Directorate, which through its National Housing Corporation did some PPPs in housing through Turnkey models.

The fifth in ranking was that there exists some familiarity and agreement on the need to apply PPPs in down-market urban housing, with a standard deviation of 0.63. The need to apply PPPs has been heavily acknowledged in the budget policy statement for the years 2018 -2020/2021 in Kenya, where the government intends to utilize the concept to deliver housing, roads, water and university hostels to address the huge demands which the public sector cannot meet if it acted alone. The sixth in ranking was that PPPs have been used before in some forms of down-market urban housing, at a standard deviation of 0.71. The Ministry of Housing for example used a unique form of partnership with the local authorities of Thika, Mavoko and Mombasa (Kiambeni), where the Ministry would provide housing infrastructure, while the local authorities would undertake supervision on a day to day basis. This led to the private sector construction of housing units in the areas where such infrastructure had been provided. In Kisaju, off Kitengela Town of Kenya, the National Cooperative Housing Union (NACHU) has put up 212 affordable housing units under some form of partnerships, where the government offers some form of infrastructure.

The combined rankings by the panels show that three issues were highly important: 1. PPPs are applicable in the development of down-market urban housing; 2. There exists some legal, regulatory and institutional frameworks for the application of PPPs in Kenya; 3. Structuring PPPs can make it applicable to developing down-market urban housing, as presented in figure 16.

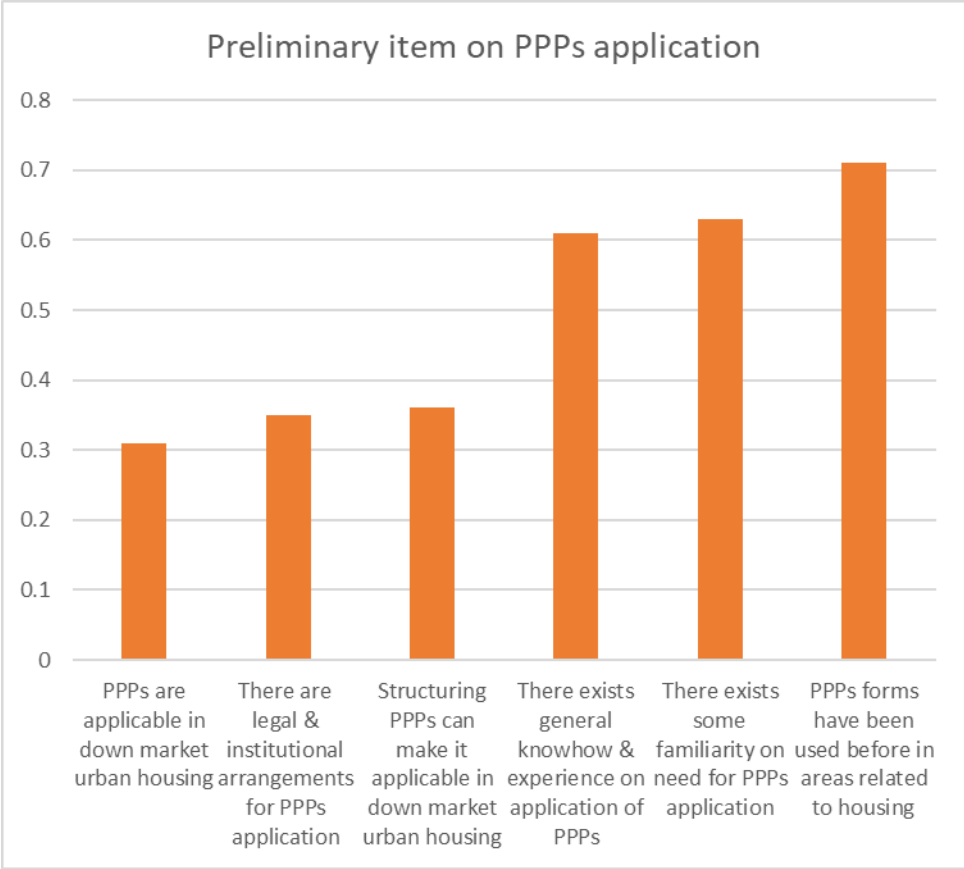


Figure 16: Preliminary items on the application of PPPs in low cost urban housing

Source: Author (2020).

The panels then tackled the question on the possible ways through which PPPs would become applicable in down-market urban housing in Kenya. Housing Financiers ranked the issues as: First, there was need for the county to utilize international experience, which would be obtained from the international and national financial institutions. The country could also utilize the case studies on successful countries in various sectors on PPPs application, with a standard deviation of 0.36. Second, the government should offer adequate and structured guarantees, incentives and above that create an enabling legal, regulatory and institutional environment for PPPs application in housing development for urban low-income households at a standard deviation of 0.37. Third, the roles of partners in a PPP project for down-market urban housing should be clearly defined, with a standard deviation of 0.41. Fourth, the country should enact favourable legal environment and make housing PPP regulations, with a standard deviation of 0.55.

Fifth, the country should come up with diverse and cheaper ways of funding down-market urban housing, such instruments could include: utilizing sovereign wealth funds, National Social

Security Funds (NSSF), National Hospital Insurance Fund (NHIF) among others, 0.56. Sixth, the country needed to address housing commodification challenges, which makes housing to occupy a middle ground between a social and a public good, depending on how it is looked at, 0.72. Seventh, it was noted that there is need to utilize various mixtures of models, such as Turnkey, Joint ventures, land swap, that are suitable locally, with a standard deviation of 0.78.

These rankings show that the housing financiers have three major possible ways for PPPs application in down-market urban housing: 1. The need to utilize international experiences concerning the application of PPPs; 2. The government should provide guarantees, incentives and an enabling environment for the PPPs to be successfully applied; 3. The parties should clarify their roles in the partnerships, as shown in table 14.

Table 14: Possible ways of PPPs application in down-market housing by Housing Financiers

No	Item	Mean	standard Deviation	Rank	Remark
1.	Utilize international experiences on PPPs	1.20	0.36	1	Highly Important
2.	Enabling environment by Government	1.33	0.37	2	Highly Important
3.	Clearly define roles of partners in a PPPS	1.53	0.41	3	Highly Important
4.	Enact favourable legal environment	1.63	0.55	4	Moderately important
5.	Diversify housing funding sources	2.43	0.56	5	Moderately important
6.	Address housing commodification challenges	2.17	0.72	6	Important
7.	Utilize various & mixture of models	2.10	0.78	7	Important

Source: Author (2020).

The Housing Developers thought that the first issue in possible ways through which PPPs could be applied in down-market urban housing would be need for enacting favourable legal environment and making appropriate regulations, with a standard deviation of 0.36. The second was the need for utilization of diverse and cheaper housing funding - sovereign wealth funds, NSSF, NHIF, at a standard deviation of 0.36. The third was clearly defining the roles of partners in a PPP arrangement, with a standard deviation of 0.36. The fourth was the need to address housing commodification challenges, at a standard deviation of 0.37. The fifth was the need to utilize various delivery initiatives of PPPs and a mixture of models including Turnkey, Joint

ventures, land swap, which can work and are suitable locally, with a standard deviation of 0.40. Sixth was the need to utilize international experience, which could be from international and national financial institutions and case studies on successful countries on PPPs application, with a standard deviation of 0.66. Seventh, the government should offer guarantees, incentives, enabling environments for PPPs application, at a standard deviation of 0.81.

These rankings show that for the housing developers, five aspects were highly important: 1. Enact favourable legal and enabling environment; 2. Diversify housing funding sources; 3. Clearly define the roles of the partners in a PPP arrangement; 4. Address the housing commodification challenges; 5. Utilize a variety and mixture of models for effective PPPs like joint ventures, turnkey, land swap and cooperatives/Saccos, as illustrated in table 15.

Table 15: Possible ways of PPPs application by Housing Developers

No	Item	Mean	Standard Deviation	Rank	Remark
1.	Enact favourable PPP legal environment	1.18	0.36	1	Highly Important
2.	Diversify housing funding sources	1.29	0.36	1	Highly Important
3.	Clearly define roles of partners in a PPP	1.32	0.36	1	Highly Important
4.	Address housing commodification challenges	1.36	0.37	4	Highly Important
5.	Utilize various and mixture of models	1.43	0.40	5	Highly Important
6.	Utilize international experiences on housing PPPs	2.29	0.66	6	Moderately important
7.	Government to offer guarantees & incentives	2.07	0.81	7	Important

Source: Author (2020).

The Housing Practitioners thought that the first issue should be the identification of diverse and cheaper sources of housing development funding, which should include utilization of sovereign wealth funds, NSSF, NHIF, at a standard deviation of 0.35. Secondly should be the enactment of favourable legal environment, alongside making regulations for housing delivery under PPPs, at a standard deviation of 0.37. Third should be the need for utilizing international experience gained by financial institutions and development partners and the application of successful case studies on the utilization of PPPs, at a standard deviation of 0.41. Fourth is the need to address housing commodification challenges, at a standard deviation of 0.47. Fifth is the importance attached by the group of utilizing various ways and a mixture of PPP models –Turnkey, Joint ventures, land swaps, which were available and suitable locally, with a standard deviation of

0.50. Sixth was the rationale for clearly defining the roles of partners in a PPP arrangement, with a standard deviation of 0.58. Seventh for this panel was the need for the government to offer guarantees, incentives and an enabling environment for PPPs to thrive, at a standard deviation of 0.70.

These rankings show that housing practitioners thought that there were four possible ways for effective PPPs application in down-market urban housing: 1. Diversifying the funding sources for housing through PPPs; 2. Enacting and creating a favourable environment including legal backing; 3. Utilizing the international experiences in countries that have actively used the concept; 4. Stakeholders must address the housing commodification challenge, as per table 16.

Table 16: The possible ways of PPPs application by the Housing Practitioners

No	Item	Mean	Standard Deviation	Rank	Remark
1.	Diversify housing funding sources	1.27	0.35	1	Highly Important
2.	Enact favourable PPP legal environment	1.17	0.37	2	Highly Important
3.	Utilize international experiences on housing PPPs	1.07	0.41	3	Highly Important
4.	Address housing commodification challenges	1.53	0.47	4	Highly Important
5.	Utilize various and mixture of models	1.57	0.50	5	Moderately important
6.	Clearly define roles of partners in a PPP	1.67	0.58	6	Moderately important
7.	Government should offer guarantees & incentives	1.80	0.70	7	Important

Source: Author (2020).

Seven ways through which PPPs would be made applicable in the development and construction of down-market urban housing in Kenya were identified by the panels by combining their individual opinions. The first one was the need to utilize the international developers, financial institutions like the World Bank, IMF and African Development Banks; also seek to learn from successful case studies of the countries which have succeeded in using PPPs in down-market housing, with a standard deviation of 0.36. From the best practice, it can also be learnt that for such programmes to succeed, there is need to have a mixed social housing programme, which integrates middle and low-income households. The programme works where the middle-income payments can subsidize low-income households. This was done in the development of Regent

Park, in Toronto Canada, where the developer constructed 3,300 housing units, out of which 300 was set for affordable housing and the rest for social housing (UN Habitat, 2011). Kenya can borrow only what works locally and adopt it with modifications to suit the local environment, as this will make it successful and replicable.

Secondly, it was found that there is need to clearly define the roles of the partners in a PPP programme, with a standard deviation of 0.36. Under such a definition of roles, the public sector can for example provide land, which is then serviced with social and physical infrastructure. The private partner can take the role of providing technology, innovative project design and implementation, managerial acumen, capital and financial resources, which are a challenge for public authorities. The public land together with the on-site and off-site social and physical infrastructure can have a significant reduction in the overall pricing of the final housing unit, which makes it affordable for low-income urban households. In the Department of Housing Kenya programme for housing infrastructure from 2012 to 2015, the sites which were upgraded and infrastructure installed developed good housing standards as opposed to areas where the department had not intervened.

Thirdly, it was noted that such partnerships should not utilize only the commonly known PPP models, but should seek to either mix the models, use a variety of the possible relationship models under PPPs like turnkey, joint ventures, land swaps and other models found suitable for local scenarios, with a standard deviation of 0.36. The Kenyan PPP law (2013) recognizes the need to use a variety of arrangements for the application of PPPs. This is supported by Nathan Associates (2017), who quoting from the PPP reference Guide 2.0 of the World Bank, notes that the applicable PPP models that a particular project chooses depend on: first the adopted structure for the allocation of the responsibilities for the parties, secondly the rights and risks; thirdly, concludes that the models can vary. The application of such models is determined by the purpose of the project, the services and goods to be provided, the scope of the project, the length of the contact and how the risks and benefits have been proposed to be shared. Kenya has a lot of land with private entities for example who can provide land swaps, joint ventures and collaborations with financiers and governments to deliver down-market urban housing.

Fourth, it was found that diverse sources of financing for down-market urban housing PPPs should be utilized at a standard deviation of 0.38. The diversification should include the

utilization of pension funds and sovereign wealth funds which makes housing financing cheaper because of the applicable borrowing interest rates in such funds are cheaper. The question that many countries face when deciding to use PPPs is the source of funds for the envisaged projects, with experts advising such countries to diversify their financing arrangements. They should introduce government financing of the concession agreement, in addition to the allocated public land, fiscal incentives, permits and utilization of ministerial budgets, taxes, donor and official development assistance. The government can also utilize sovereign bonds to generate more finances for such ventures.

Funding for PPPs could come from private entities through capital contributions, shareholder loans, mezzanine financing and senior debts. Private financing of PPP ventures could also come from bilateral and multilateral banks and financial institutions like DFID, USAID, AfDB, World Bank. These agencies can fund PPP projects through grants, debt instruments, contributions to infrastructure financing facilities. These institutions can also issue partial credit guarantees to shore up more financing sources and assure investors of the safety of their investments. PPP projects for down-market urban housing could also get financing from equity investors like the Africa Infrastructure Investment Fund, private equity firms, pension and insurance funds and venture capital funds. This is supported by PPP Lab insight 4 series 2014-2018, by the Dutch Government, which adds the need to cultivate the financing of impact investors, who are interested in financial returns and environmental impacts of projects like in housing developments.

Fifth, it was on the need to undertake various legal and regulatory frameworks review to make them favour down-market urban housing, with a standard deviation of 0.39. The review of the frameworks should provide for the creation of special funds for PPPs, a special method of procurement, uptake of the completed housing units through outright purchase or renting as appropriate and guarantees to be offered by the government. The current PPP Act, 2013, should be amended to allow expressly for the application of PPPs in social sectors like housing. The review should provide for special regulations for funding PPPs in social sectors where profits and returns on investments may not be big enough compared to hard physical infrastructure. These regulations should consider housing as a social and economic right, despite the unaffordability of the majority of the urban residents in Kenya to the market supply of housing.

The regulations should eliminate red tapes and bureaucracy, corruption, minimize risks and conflict of interest and above all, the regulations should be consistent with a country's PPP policy and intended objectives.

Sixth, it was noted that the government has a bigger role to play if PPPs in down-market urban housing is to succeed, with a standard deviation of 0.42. It should be noted that the government's role cannot be substituted with private entities as there is always the need to protect the public interests in all development programmes. The Government will always be obligated to come up with adequate guarantees and incentives, while creating an enabling environment – economically, socially, politically. It should also establish champions and pacesetters for the utilization of PPPs in down-market urban housing. These entities will be critical in drumming up support and being the benchmarks for such a noble initiative. Strong government policies and laws on PPPs for down-market urban housing through adequate government support and guarantees can change the risk perceptions in the sector. This will attract more private entities in down-market urban housing. The Republic of Kenya has for example formulated the Policy on the issuance of government support measures for investment programmes of 2018, which details the support measures and guarantees the government will give to investors in all sectors of the economy, including in down-market urban housing. The intended support measures include: political, risks covers, undertakings, co-investments with the private parties for enhancing the credit rating of the project and which is necessary for sectors like down-market urban housing.

Seventh, there is need to address housing commodification challenges, with a standard deviation of 0.64. The private developers view housing development as just another commodity to be traded with. The private sector has all along noted that housing will be accessed through a willing buyer and willing seller scenario. The users for such housing products, especially in low-income urban households see it as a social good to be provided to them as a national obligation and duty. The government should encourage the trading of housing and housing infrastructure-related shares, units, bonds and other derivatives. This will attract more developers and investors in housing and down-market urban housing for that matter, which will reduce the cost of production of such housing products.

These rankings by the combined panels show that six aspects are highly important: 1. Utilizing the international experiences with the application of PPPs; 2. Clearly defining the roles of the

partners in the framework; 3. Utilizing various PPP models as necessary and a mixture/hybrid of them; 4. Utilizing diverse sources of funding development of housing through PPPs; 5. Enacting favourable PPP application environment; 6. The government should offer guarantees, incentives and an enabling environment. The combined ways through which PPPs could be made applicable are as presented in table 17.

Table 17: Combined ways through which PPPs can be made possible

S/No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Utilize international experiences on PPPs	1.17	0.36	1	Highly Important
2.	Clearly define roles of partners	1.32	0.36	1	Highly Important
3.	Utilize various PPP models	1.60	0.36	1	Highly Important
4.	Utilize diverse sources of housing funds	1.64	0.38	4	Highly Important
5.	Enact favourable PPP legal environment	1.11	0.39	5	Highly Important
6.	Government should offer guarantees & incentives	1.11	0.42	6	Highly Important
7.	Address Housing commodification challenges	1.74	0.64	7	Mild Important

Source: Author (2020).

On the question of the existing legal, regulatory and institutional framework for PPPs application in down-market urban housing, the panels had mixed opinions on the same.

The Housing financiers, they noted that first, there is the need to amend the current legal and regulatory environment for PPPs applicability in down-market urban housing, with a standard deviation of 0.35. Secondly, there is the need to build capacity for counties to enter into PPP arrangements, at a standard deviation of 0.36. Thirdly, there is need to develop county-specific PPP laws and guidelines with broader areas of application, with a standard deviation of 0.43. Fourthly, there is need to address the inherent challenges in PPPs application, recoding a standard deviation of 0.45. Fifth, there is need to address the housing commodification challenges, recording a standard deviation of 0.76. Lastly and sixth, there is need to use innovative financing strategies for PPPs, recording a standard deviation of 0.76.

These rankings show that housing financiers highly ranked four issues: 1. Amending the current legal environment for PPPs application to be effective; 2. Building capacity for counties to enter into PPPs arrangements; 3. Developing county-specific guidelines and policies for broader

application of the concept; 4. Addressing the likely challenges in PPPs application, as illustrated in figure 17.

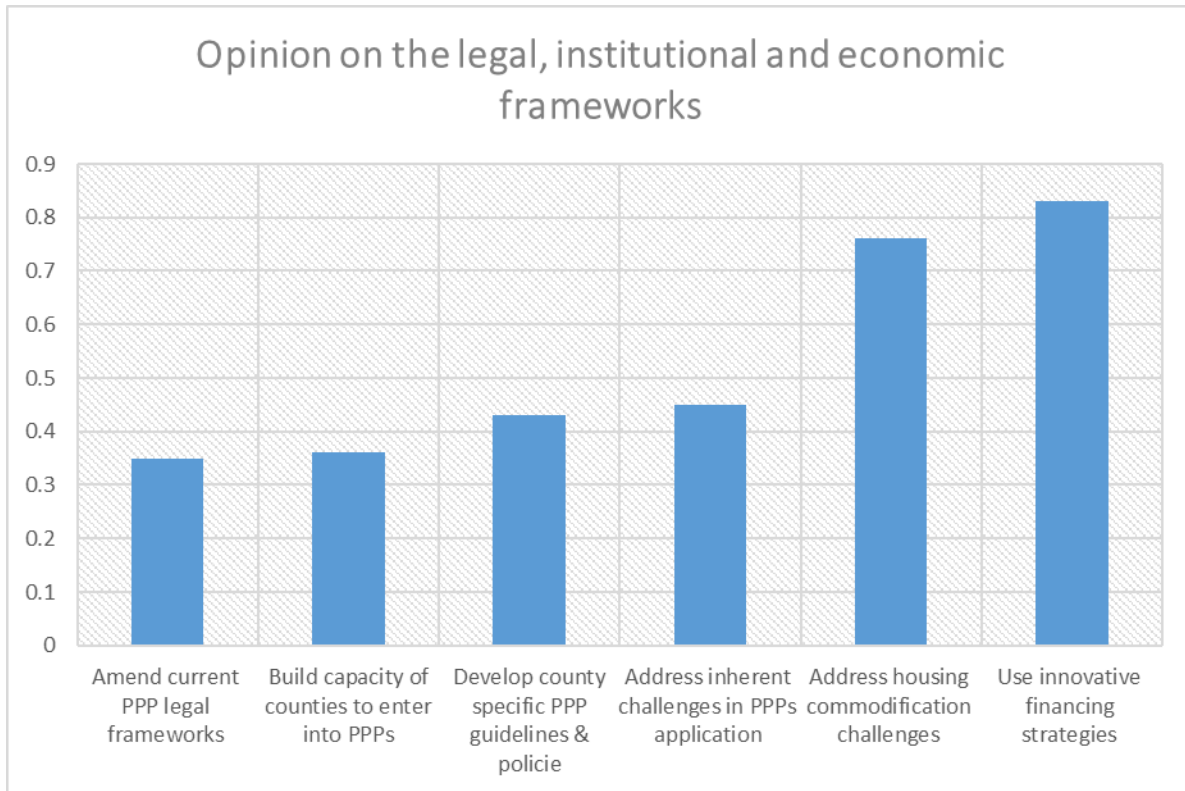


Figure 17: Opinion on the legal, institutional and economic frameworks for PPPs by Housing Financiers.

Source: Author (2020).

The Housing developers noted that first, there is need to make laws to enable the use of innovative financing strategies, like the unit trusts, shares, housing bonds, which recorded a standard deviation of 0.36. Secondly, laws should be made to address the inherent challenges in PPPs application, alongside the creation of mechanisms for awareness creation and uptake. The laws should also simplify the application procedures, this recorded a standard deviation of 0.36. Thirdly, there is need to amend the current legal and regulatory environment to make it responsive to the housing situation, which recorded a standard deviation of 0.45. Fourth, there is need for capacity building of counties to make them tap into the PPP arrangements, which recorded a standard deviation of 0.62. Fifth, there is need for stakeholders to address housing commodification challenges, at a standard deviation of 0.65. Sixth, there is need to develop

county-specific PPP guidelines and policies with broader areas of application, which recorded a standard deviation of 0.75.

These rankings show that housing developers rated highly three issues: 1. The need to use innovative financing strategies for developing down-market urban housing through PPPs; 2. The need to address inherent challenges in PPPs application alongside the creation of awareness and simplifying the procedures; 3. Amending the current legal and regulatory framework to suit the unique housing characteristics, as illustrated in figure 18.

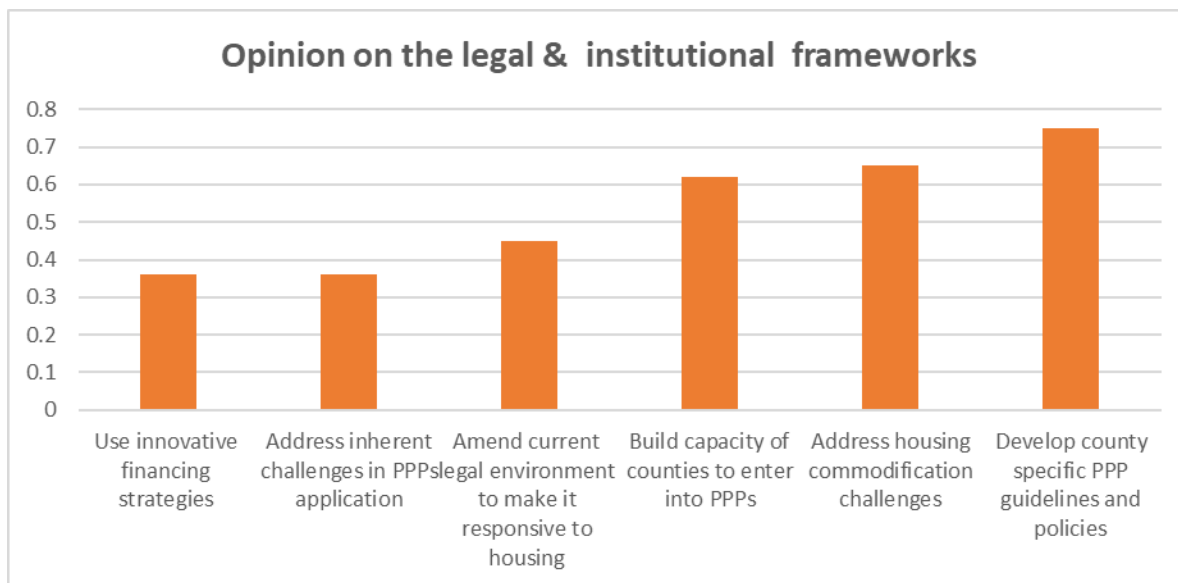


Figure 18: Opinion on legal and institutional frameworks for PPPs by Housing Developers.

Source: Author (2020).

The Housing practitioners agreed with the Housing financiers on the first three items and ranked them as follows. First, they pointed out the need for amending the current legal and regulatory environment including the PPP Act, 2013 to make it more responsive to housing issues. This observation recorded a standard deviation of 0.35. Secondly, they pointed out the need to build the capacity of counties to freely tap into PPP arrangements for complementing their development needs. This observation recorded a standard deviation of 0.35. Thirdly, they observed the need to develop county-specific PPP guidelines and policies which make them adopt PPPs and undertake down-market urban housing, at a standard deviation of 0.36. Fourthly, they ranked the need to make PPP laws in such a way that it allows for the utilization of innovative financing strategies, at a standard deviation of 0.37. Fifth, they noted that the laws should address the inherent challenges in PPPs application, at a standard deviation of 0.38. Sixth, they pointed out that laws

should also address the housing commodification challenges, recording a standard deviation of 0.39.

These rankings show that housing practitioners highly rates all six issues: 1. There is need to amend the existing legal and regulatory environment; 2. There is need to build capacity for counties and other entities to apply PPPs; 3. Develop county-specific PPP guidelines and policies; 4. Use innovative financing methods in PPPs for housing development; 5. Address inherent challenges in its application; 6. Address the housing commodification challenge, as presented in figure 19.

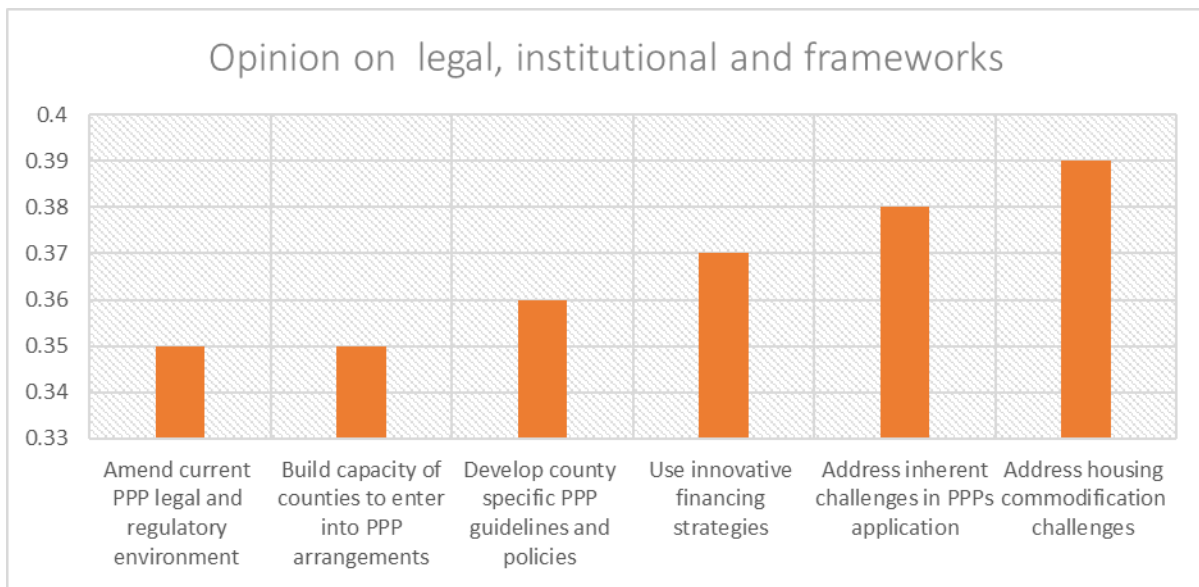


Figure 19: Opinion on legal and institutional frameworks for PPPs by Housing Developers.

Source: Author (2020).

When the views of the panels were aggregated and weighted, the emerging ranking was that: Firstly, there was need to address the existing bottlenecks in the application of PPPs in down-market urban housing, which recorded a combined standard deviation of 0.28. These bottlenecks are brought about by the legal, regulatory and institutional frameworks in Kenya which are in most cases inhibitive. This is a position supported by the researcher based on two fronts. One, the State Department of Housing and Urban Development identified 34 pieces of legislation which were deemed as being inhibitive to the construction of 500,000 housing unit as per the President’s agenda in Kenya. PPP laws were singled out for review to make them permit the procurement of housing, which is not a proper commodity for trading. This is because of the

profitability drives for the private sector and the need for governments to provide the service to low-income urban households, who have limited purchasing power.

The need for a review of the existing PPPs laws in Kenya has been supported by the Strategic Legal Group, which while making its review of the PPP Act, 2013, noted that there is need to develop strong laws for the application of PPPs. This will clarify the legal authority for government agencies and ministries to grant concessions and special procurement of housing projects. These mechanisms will accelerate the development of down-market urban housing by utilizing public assets for down-market urban housing. It will address the lingering issue of government granting land for the development of housing, which is later sold, an idea which to critic's amounts to the government releasing its land to the private sector through the backdoor. Many observers have opined that government land can only be used for developing rental social housing programmes. In cases where the land has been used for developing housing units for sale, the government should retain the master title of the land, with the buyers being issued with section titles as per the section Property's Act, 1987 of Kenya and as amended in 2012.

Secondly, there is need for the national government to develop county-specific PPP laws and regulations, which recorded a standard deviation of 0.29. This will enable counties to independently undertake and utilize PPPs on a wide range of projects, since schedule IV part II of the constitution of Kenya allocates counties 14 major functions, including housing development. The formulation of county-specific laws on PPPs is supported by what the British Columbia undertook for its local authorities in 1999. The Ministry of Municipal Affairs of Colombia developed a PPP guide for local authorities by amending the existing PPP law, which served four major purposes. First, it enabled local authorities to freely and legally enter into PPP projects for a wide range of facilities and programmes. Secondly, the guide clarified the legal standing (*Locus standi*) of counties to enter into PPP arrangements. Thirdly, it assisted local authorities to determine when, where and how to enter into PPP arrangements for service delivery. Fourthly, it helped local authorities to know how to prepare to enter into PPP arrangements. The developed local authority guide on PPPs application in Colombia had recommendations for each stage of the PPP process.

Thirdly, the respondents noted that there was need to address the housing commodification challenges, a position that had a standard deviation of 0.31. This is because to the developers,

housing development is to be treated like the other products, which are available in the market place. They opine that housing should be tradable and hence accessed by those who can afford, but the low-income urban households, housing should be seen within the broader group of rights. They observe that the state and other stakeholders must work out ways of providing the same to them profitability notwithstanding. The need to provide such groups with adequate housing provision is because this has both preventive or ameliorative impacts on poverty, which is a major issue for low-income urban households. This is because the provision of high quality and affordable housing to such groups reduces the living costs and in the process contributes to positive living conditions in terms of health and overall welfare. In the process of developing down-market urban housing, the residents can indirectly benefit from training and employment opportunities, which in the process reduces the existing poverty levels. The local labour can be used as sweat equity and hence reducing overall housing construction costs and offering the net savings to such persons for their welfare.

Fourth, there was need to use a variety of financing strategies for down-market urban housing PPPs, which recorded a standard deviation of 0.35. This research supports the need for diverse housing development financing strategies because the needs and the economic classes of people to serve vary. The proposed application of PPPs will work with diversified sources of funding for the programme because the public sector must meet the demands of housing for all. This is supported by the KIPPRA brief (2018), which notes the need for domestic savings mobilization for the utilization in the development of down-market urban housing. The financing instruments should be designed in a way that allows access to long term and affordable housing development credits. The government should come up with various incentives and institutional support for the alternative and affordable housing financing in line with the government support measures policy, 2018.

Fifth, the respondents noted that the national government should build the capacity of counties to enter into PPP arrangements, with a standard deviation of 0.35. In Kenya, counties have been assigned some fourteen major functions which require huge financial outlays and which cannot be met by the existing financing arrangements.

The combined panels ranked five issues under consideration as highly important: 1. Addressing the bottlenecks in PPPs application; 2. Developing county-specific PPP policies and guidelines;

3. Addressing housing commodification challenges; 4. Using diversified sources of financing for housing development; 5. Building the capacity of counties to enter into PPP transactions, as presented in figure 20.

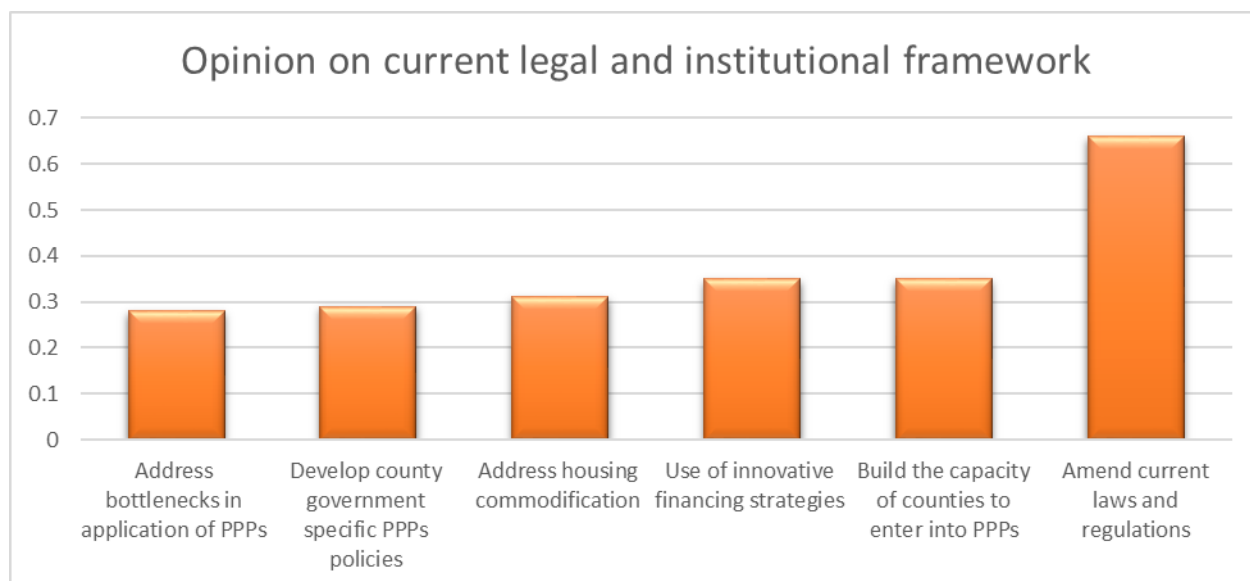


Figure 20: The combined opinion of panellists on the legal and institutional arrangements for PPPs in Kenya

Source: Author (2020).

The panellists provided four major unique factors which should be addressed by stakeholders to make PPPs applicable in down-market urban housing. The Housing financiers ranked the four major items as follows: The first was the need for the government to create an enabling environment to make the application of PPPs in down-market urban housing be realized, which recorded a standard deviation of 0.35. The enabling environment could be achieved through the provision of serviced land, housing infrastructure, development of standard housing designs and manuals to make it possible for low-income urban households to adopt in their housing developments. The creation of an enabling environment is so important to the financiers because they would like to put their funds where they are sure of recouping back investments, and where the principal amounts borrowed will be repaid.

The second was a need to have clear project goals, financing and uptake models, innovation and technologies to be utilized in the project development at the beginning, which recorded a standard deviation of 0.36. The need for adequate financing and uptake models determines

whether a project will attract the necessary financing and hence be implemented. As a Ministry of Housing official, the researcher has experienced this first hand, because all potential housing financiers who are interested in partnering with the ministry, have always sought to know the goals of the project, financing and uptake models before they can commit their funds to the process.

The third was the need to form strategic partnerships with all stakeholders, which recorded a standard deviation of 0.70. The envisaged partnerships could be structured with professionals in the built environment, developers and housing construction material manufacturers. Stakeholders in such a category may offer some of the services they specialize in as part of corporate social responsibility or as part of giving back to the community they work in. Fourthly, there was need to address the housing commodification challenges, which recorded a standard deviation of 0.76.

These rankings show that the housing financiers highly rated two issues as the unique factors to be addressed to make PPPs applicable: 1. The government should create an enabling environment, develop standard designs and manuals for accelerated applicability; 2. There is need to formulate clear project goals, financing and uptake models for the effectiveness in PPPs for down-market urban housing. This ranking of the opinions of the housing financiers is provided in table 18 below.

Table 18: Unique factors to be addressed to make PPPs applicable by Housing Financiers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Government should create enabling environment	1.27	0.35	1	Highly Important
2.	Formulate clear project goals, financing & uptake models	1.30	0.36	2	Highly Important
3.	Form strategic partnerships with stakeholders	1.80	0.70	3	Important
4.	Address housing commodification	1.87	0.76	4	Important

Source: Author (2020).

The Housing Developers stated that the most important thing was the need to have clear project goals, financing, uptake models, innovation and technologies to be used in the project, a statement that recorded a standard deviation of 0.35. The second was the need for the government to create an enabling environment for the application of PPPs for down-market urban housing, which recorded a standard deviation of 0.36. Third, was the need to form

strategic partnerships with all stakeholders in the built environment sector, which recorded a standard deviation of 0.36. The fourth was the need for addressing the Housing commodification challenges, which recorded a standard deviation of 0.62.

These rankings show that housing developers highly rated three issues to be addressed to make PPPs applicable in down-market urban housing: 1. Formulating clear project goals, financing and uptake models, alongside standard manuals and procedures; 3. The need to form strategic partnerships with stakeholders. The ranked opinions of the housing developers on the unique issues which needed to be addressed to make PPPs applicable in down-market urban housing are highlighted in table 19 below.

Table 19: Unique issued to make PPPs applicable in housing by Housing Developers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Formulate clear project goals, financing & uptake models	1.25	0.35	1	Highly important
2.	Government should create enabling environment	1.21	0.36	2	Highly important
3.	Form strategic partnerships with stakeholders	1.32	0.36	2	Highly important
4.	Address housing commodification	1.71	0.62	4	Mild Important

Source: Author (2020).

The Housing Practitioners agreed with the housing financiers and noted that first, the government should create enabling an environment for PPPs application through the provision of serviced land, standard designs and manuals, which recorded a standard deviation of 0.35. Secondly, stakeholders in a PPP project should provide clear project goals, financing and uptake models, including how the innovation and technology will be utilized in the project, which recorded a standard deviation of 0.36. Thirdly, there was need to form strategic partnerships with professionals, developers and manufacturers of materials for housing development, which recorded a standard deviation of 0.37.

These ranked factors show that housing practitioners highly rated all four issues: 1. The government should create an enabling environment; 2. It should formulate clear project goals, financing and uptake models to be effective; 3. It should form strategic partnerships with all

stakeholders; 4. It should address the housing commodification challenges. The ranked opinions of the housing practitioners are highlighted in table 20.

Table 20: Unique issues to address to make housing applicable by Housing Practitioners

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Government create enabling environment	1.27	0.35	1	Highly important
2.	Formulate clear project goals, financing & uptake models	1.30	0.36	2	Highly important
3.	Form strategic partnerships with stakeholders	1.17	0.36	2	Highly important
4.	Address housing commodification	1.17	0.37	4	Highly important

Source: Author (2020).

A Combination of the panels and their opinions on the unique factors to be addressed to make PPPs applicable in down-market urban housing was undertaken. The combined opinion was that first, there is need to form strategic partnerships with professionals, developers and manufacturers of building materials in developing down-market urban housing through PPPs, which recorded a standard deviation of 0.28. Many professionals in the built environment can collaborate with the government if so invited to develop down-market urban housing. They will take this initiative as part of their corporate social responsibility or giving back to the community. In the same length, some of them may offer advice and solutions on the construction methods, while others can provide consultancy services on a pro bono basis in the development of the housing units. The developers can decide to waive some of their profit margins and the material manufacturers can develop materials for the construction of low-income urban households.

The second in ranking was that the promoters of the down-market urban housing programmes must come up with clear project goals, financing and uptake models. There should be a consideration of the adequate technologies and innovations to be used, which has a bearing on the final housing unit prices, which recorded a standard deviation of 0.31. The Kenyan government through State Department of Housing and Urban Development came up with the financing framework, uptake models and also had to develop clear project goals. The framework provided for example that 200,000 housing units will be for social housing and 300,000 housing units will be for affordable and mortgage gap housing. The clear project goals and objectives are

important in providing clear monitoring and evaluation frameworks and an assessment of the achievements and failures for enhanced performance.

The third in ranking was that the public sector should create an enabling environment for the application of PPPs in down-market urban housing. This should be done through the provision of serviced land, standard designs and manuals for the ease of adoption by the low-income urban households, which was weighted at a standard deviation mark of 0.38. The rationale for the provision of housing infrastructure far outweighs the cost the government may use to do actual housing units. This is because after the infrastructure has been installed, there are marked differences in that households can adopt many ways to shelter themselves. Developers can undertake investments in housing since the profits will be higher where they don't have to factor for housing infrastructure in their projects. The government can avail land free of encumbrances for the down-market urban housing including the construction of rental units or for sale. Land transactions in Kenya are prohibitive to developers of housing, especially low-income urban housing. The government employs many staff in the Housing and Urban Development departments, who can be able to develop standard designs for low-cost urban housing for adoption by households. Such measures taken by the government lessens the cost of designs and specifications for such units, making it easier to provide decent housing for Kenyans.

The fourth in ranking was that there is need to address the housing commodification challenges which face many low-income urban households, and which weighted a standard deviation of 0.78.

These rankings show that the combined panels highly rated three issues key to addressing the challenges facing the application of PPPs: 1. There is need to form strategic partnerships with stakeholders; 2. There is need to formulate clear project goals, financing and uptake models for effectiveness; 3. The government should create an enabling environment, alongside the development of standard manuals and procedures for ease of PPPs application. These ranked opinions of the whole three panels combined are as presented in table 21.

Table 21: Combined unique issues to be addressed to make PPPs applicable

S/no	Item	Mean	Standard Deviation	Rank	Remarks
1.	Form and utilize strategic partnerships	1.42	0.28	1	Highly Important
2.	Formulate clear project goals, financing & uptake models	1.32	0.31	2	Highly Important
3.	Government create enabling environment	1.11	0.38	4	Highly Important
4.	Address housing commodification challenges	1.89	0.78	5	Important

Source: Author (2020).

The panels also provided 6 factors which if implemented can make down-market urban housing affordable through PPPs. Housing Financiers listed them as the first being the need to amend the PPP Act, 2013 to make it responsive for housing issues, which recorded a standard deviation of 0.33 or 12%. Secondly was the need to come up with workable and bankable PPP projects with specifications and key performance indicators, which had a standard deviation of 0.35 or 12%. Thirdly was the need for timely delivery of projects under PPPs which reduces cost overruns and variations, which recorded a standard deviation of 0.35 or 12%. Fourthly was the need to address the demand and supply sides of the housing process, which recorded a standard deviation of 0.55 or 19%. The fifth was the need for well-structured partnerships with clear roles for each party, which recorded a standard deviation of 0.61 or 21%. Sixth was the need to have clear project goals, objectives, development strategies and a master plan of down-market urban housing, recording a standard deviation of 0.67 or 24%.

These rankings show that housing financiers highly rated three factors to make PPPs applicable: 1. There is need to amend the existing legal environment for PPPs application; 2. Formulate workable and bankable models with inbuilt specifications and key performance indicators; 3. Enhance timely delivery of projects, as illustrated in figure 21.

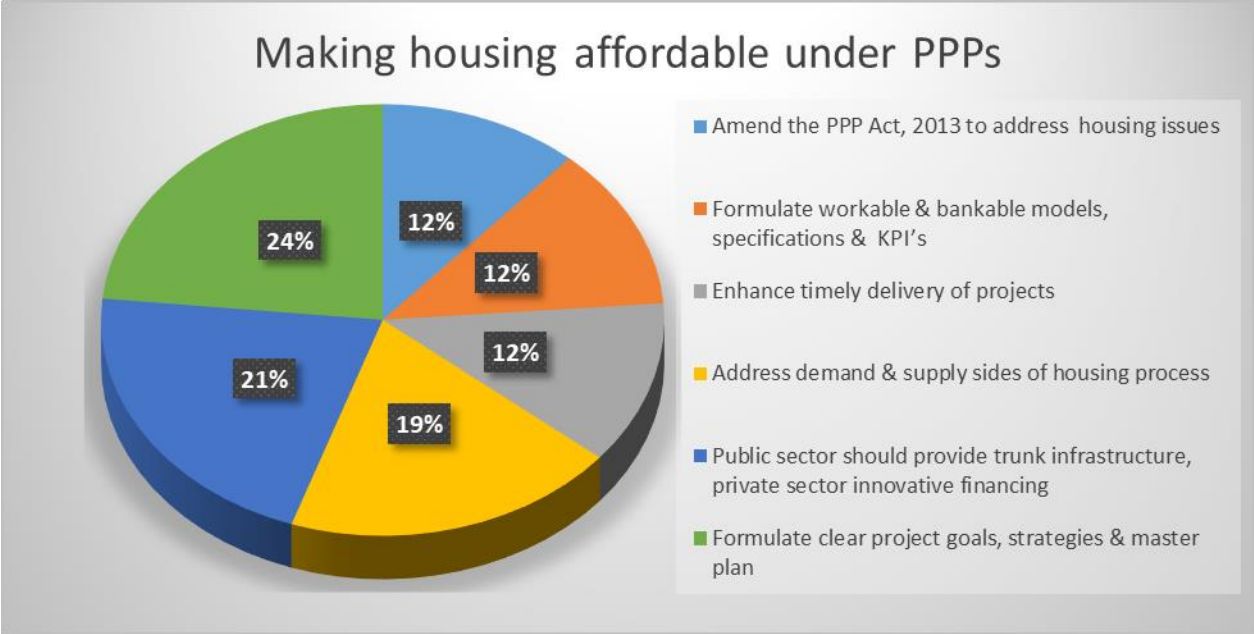


Figure 21: Factors to make housing PPPs affordable by Housing Financiers
Source: Author (2020).

The Housing Developers started that first, there was need for formulating clear project goals, objectives, development strategies and a master plan, which recorded a standard deviation of 0.28 or 11%. Secondly was the need to have timely completion and delivery of projects, which recorded a standard deviation of 0.29 or 11%. Thirdly was the need for developing workable and bankable PPP projects which have inbuilt specifications and key performance indicators, which recorded a standard deviation of 0.40 or 15%. The fourth was the need to address the supply and demand sides of the housing process, which recorded a standard deviation of 0.48 or 18%. The fifth was the need for public and private parties to undertake their core functions and roles adequately, which recorded a standard deviation of 0.59, or 23%, and sixth was the need to amend the PPP Act, 2013 to address legal issues which have a bearing on the unit costs, which recorded a standard deviation of 0.59 or 22%.

These rankings show that housing developers highly rated four factors to make PPPs applicable in down-market urban housing in Kenya: 1. Formulate clear project goals, development strategies and a master plan; 2. Enhance the timely delivery of projects; 3. Formulate workable and bankable PPP models, which include inbuilt project specifications and key performance indicators; 4. Address the demand and supply sides of the housing process and attendance challenges, as illustrated in figure 22.

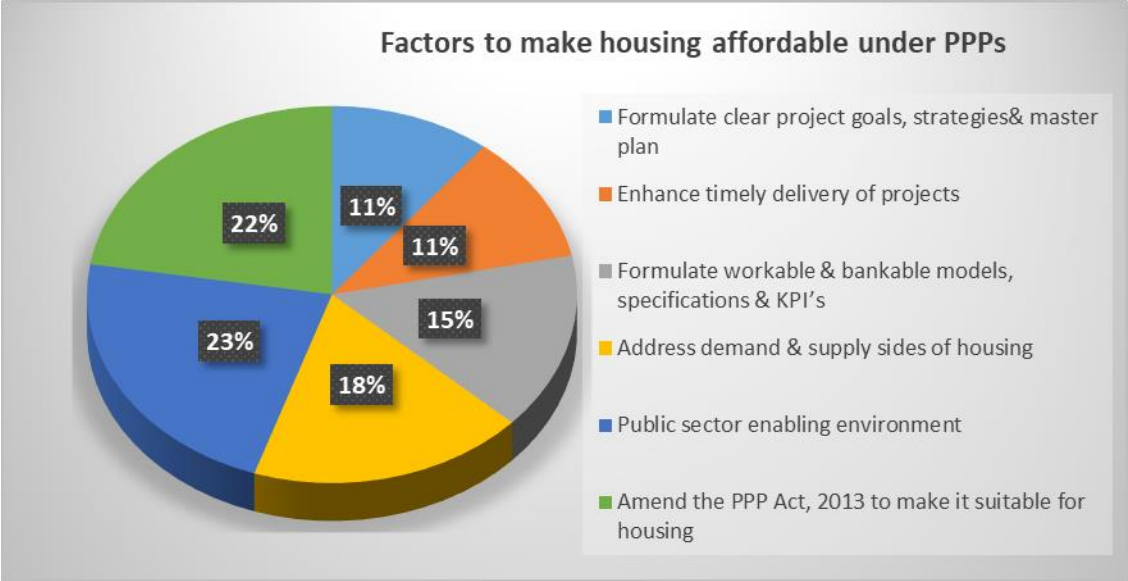


Figure 22: Factors to make housing PPPs affordable by Housing Developers

Source: Author (2020)

The Housing Practitioners thought that the factors which can make PPPs applicable should be ranked as follows: First is the rationale for addressing the demand and supply sides of the housing process, which recorded a standard deviation of 0.23 or 12%. Secondly, the public and private entities must undertake their functions in a way that they complement one another, which recorded a standard deviation of 0.25 or 14%. Thirdly, there should be workable and bankable PPPs projects in housing that have key performance indicators and inbuilt specifications, with a standard deviation of 0.33 or 18%. Fourthly was the need to amend the PPP Act, 2013 to make it suitable for down-market urban housing, which reduces costs for developers and consumers, a statement that recorded a standard deviation of 0.34 or 18%. The fifth was need to undertake the projects promptly, recording a standard deviation of 0.35 or 19%. Sixth was the need for the formulation of clear project goals, development objectives and developing a master plan, which recorded a standard deviation of 0.36 or 19%.

These rankings show that housing practitioners highly rated all the six factors which can make it possible for PPPs application: 1. Address the demand and supply side issues; 2. The public sector should provide trunk infrastructure, part financing while leaving private entities to undertake actual developments; 3. Formulate workable and bankable models of PPPs with inbuilt specifications and key performance indicators; 4. Amend the existing PPP Act, 2013 to make it

amenable to housing conditions; 5. Enhance timely delivery of projects; 6. Formulate clear project goals and objectives, as illustrated in figure 23.

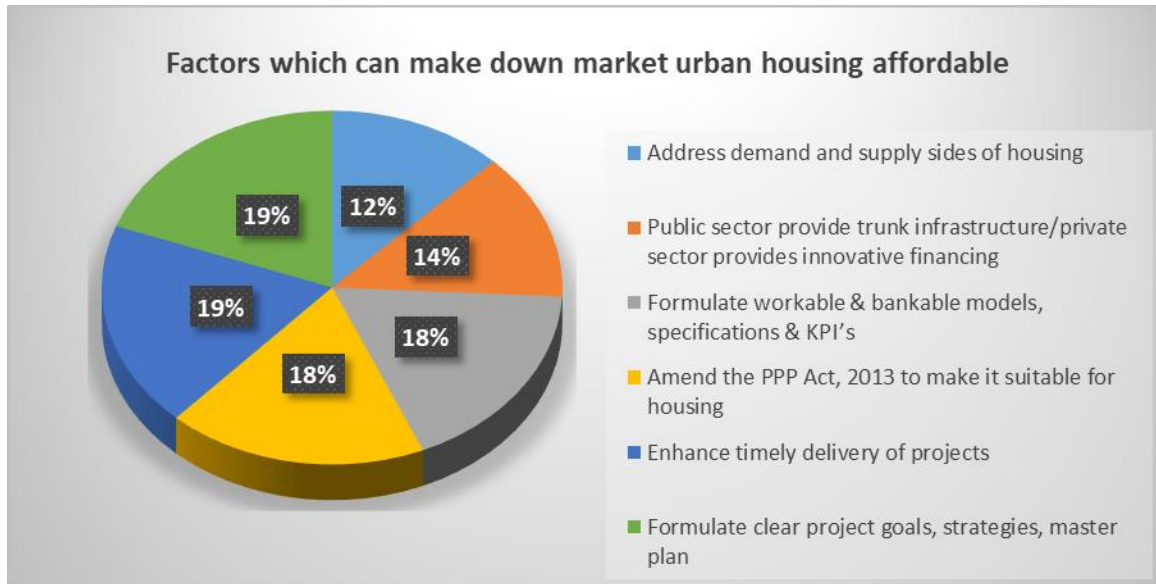


Figure 23: Factors to make housing PPPs affordable by Housing practitioners

Source: Author (2020).

When the opinions of the panel were combined, it was found out that the factors which should be addressed to make down-market urban housing affordable under PPPs should be arranged such that: First, is the need to amend the existing PPP Act, 2013 of Kenya, to make it suitable and amenable to the provision of housing. At the same time, the amendments should make it smoothen the operating environment for PPPs in such a fluid sector like down-market urban housing, which recorded a standard deviation of 0.22. The researcher as an insider in the housing department has for example been privy to a memorandum sent by stakeholders to amend section 61 of the PPP Act, 2013 for exemptions of the procedures under the act for privately initiated PPP projects. The amendment also sought to have a regulatory framework for the same developed for privately initiated PPPs.

Secondly, there was need to address the constraints in the supply and demand sides of the down-market urban housing, which recorded a standard deviation of 0.26. This could be done through relaxing the credit conditions which allows many low-income urban households to be in a position to access housing credits and house construction loans. The government can work with stakeholders to come up with housing typologies that low-income urban households can adopt in their quest for affordable housing. These typologies will ensure that local building materials can

be permitted for local construction needs through revision of the existing building codes in the country. The development of housing typologies should be done alongside permission to use appropriate building materials and technologies for housing construction. The State Department for Housing has for example constructed 93 Appropriate Building Technology Materials Centres (ABTMs), across the country. These have been used for the promotion of the use of stabilized soil blocks, a technology that has led to improved housing conditions in rural areas.

Third, it was noted was the need to formulate workable and bankable PPP models which have inbuilt output specifications and have also embedded key performance indicators (KPI's). This will be useful in enabling adequate monitoring and evaluation, which recorded a standard deviation of 0.27. The stakeholders should bring together the best ideas on how such a housing PPP project can succeed through enhanced planning, agreement on the key deliverables and also the expected outputs. This arrangement goes beyond the normal preoccupation of the government of focusing more on inputs than what is delivered at the end of the contractual relationship.

The fourth was the need for the public and private parties to endure to undertake their contractual and relationship obligations as per the division of the tasks after the bundling of the same in the PPP contract. They should collaboratively complement each other, a statement which recorded a standard deviation of 0.37. The public sector is best suited to provide the serviced land, trunk infrastructure, guarantees, reduction of the cost of building materials, addressing constraints in the ease of doing business in the country. In the cases for the production of down-market urban housing, the public sector should be able to undertake part financing of the project or some subsidies to low-income urban households. The private sector is good at undertaking the actual financing, construction, operation and maintenance of the housing projects. This is because it can maximize risks, plan effectively and apply technology, innovation and efficiency in project development.

Fifth is that the project should have clear project development objectives, goals and delivery strategy. It should also have the financing and uptake models for the finished housing units, a master plan and an attractive project structure which makes it appealing to the developers and financiers, this recorded a standard deviation of 0.50. Experience in the public sector shows that majority of the projects are executed without clear project development objectives and goals.

This ends up making majority of such projects not to be completed or delivered as intended. Such projects might end up not benefitting the intended beneficiaries but middle and high-income households.

Sixth is that the project should be undertaken promptly as per the agreed timelines, which recorded a standard deviation of 0.59. The experience in the construction industry shows that the cost overruns as a result of the sluggish implementation of housing projects bring about more variations, project extensions of time. This has in most cases led to an increase in the cost of the project, a factor which makes the consumers pay more for the final unit. This affects low-income urban households, who do not have a high disposable income to address cost variations and extensions due to longevity in executing such projects. The combined rankings by the panels show that five factors were highly rated: 1. Amending the PPP Act 2013 to make it amenable to unique housing conditions; 2. Addressing the demand and supply side issues in housing development; 3. Formulate workable and bankable PPP models; 4. Public and private entities should work in a cooperative and complementary manner; 5. There is need to formulate clear project goals, objectives, delivery strategy and financing and uptake models, as presented in figure 24.

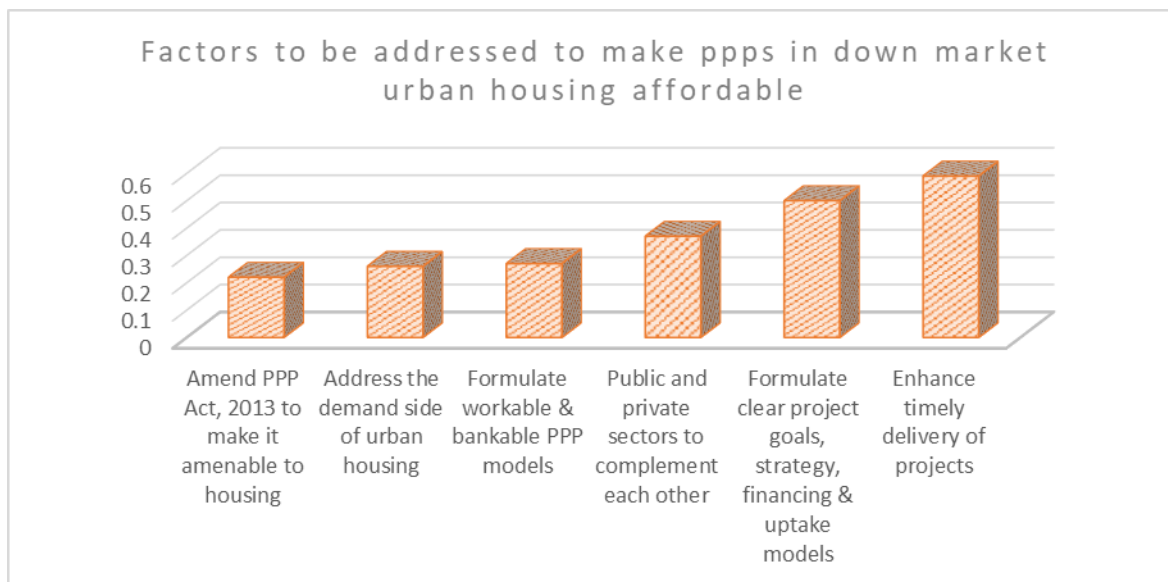


Figure 24: Combined factors to make housing PPPs affordable

Source: Author (2020)

It was noted that the national government and the counties in Kenya have a big role to play to make PPPs applicable in down-market urban housing. The housing financiers stated that the national government should undertake the following functions ranked in that order: First, it should provide incentives and subsidies to private developers and decentralize some decision-making activities to counties to make it faster for approvals in PPP programmes, a statement which recorded a standard deviation of 0.31. Secondly, it should create more awareness, put in place PPP project pacesetters, champions, structures and institutions to promote PPPs. It should also come up with regulations for PPPs which can favour and are applicable in down-market urban housing, a statement which recorded a standard deviation of 0.37. Thirdly, the government should create an enabling legal environment for the application of PPPs in the sector, which recorded a standard deviation of 0.50.

Fourthly, the government should scout for the international best practices in the application of PPPs and customize the same to the local situations, a statement which recorded a standard deviation of 0.52. Fifthly, the government should install housing infrastructure, provide serviced land, undertake land banking and utilize the cooperative or Sacco concept, a statement that recorded a standard deviation of 0.54.

These rankings show that the housing financiers highly rated three roles for the government in promoting the use of PPPs in down-market urban housing: 1. Providing incentives and subsidies

to developers; 2. Creating awareness, setting up pace setters, champions, regulations and structures; 3. Creating an enabling environment to increase efficiency in the sector. The opinions of the housing financiers on the role of government in promoting the use of PPPs is as presented in table 22.

Table 22: Role of government in promoting use of PPPs by Housing Financiers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Provide incentives & subsidies to private developers	1.50	0.31	1	Highly important
2.	Creating awareness, set up pace setters, champions	1.33	0.37	2	Highly important
3.	Create enabling legal environment	1.57	0.50	3	Highly important
4.	Use international best practice & customize locally	1.60	0.52	4	Moderately important
5.	Install housing infrastructure, serviced land	1.70	0.54	5	Moderately important

Source: Author (2020).

The Housing developers noted that the first thing that the national government should do to make PPPs applicable was the installation of housing infrastructure, provision of serviced land, land banking and encouraging the construction of housing through cooperatives, an opinion which recorded a standard deviation of 0.35. The provision of land with adequate trunk and social infrastructure has a big effect on the decision of developers to put up down-market urban housing. This is because its presence reduces the project costs and its absence means it can only be developed and its cost loaded to the consumers. The consumers might not be able to access the actual housing product and then add the extra cost of infrastructure due to the resultant high selling or rental prices.

Secondly, the national government should create awareness, pacesetters and champions alongside setting the regulations and institutions to promote PPPs, a statement which recorded a standard deviation of 0.36. Thirdly, it should create an enabling legal and regulatory environment that should aim at increasing efficiency in the sector, which recorded a standard deviation of 0.36. Fourthly is that it should scout for international best practices and customize it to the local situation, which recorded a standard deviation of 0.47. Fifth, it should provide incentives and subsidies to developers and decentralize some decision making to fast track approval of PPPs, which recorded a standard deviation of 0.53.

These rankings show that the housing developers highly rated four roles for the national government in promoting the use of PPPs in down-market urban housing: 1. Installation of housing infrastructure, serviced land, land banking and promoting the use of cooperatives in the housing development; 2. Creating awareness, pace-setters, champions, regulations and institutions for PPPs application; 3. Creating an enabling environment for increased efficiency; 4. Scouting and customizing international experiences on the application of PPPs to the local context. The opinions on the role of the National government in promoting PPPs by housing developers highlighted in table 23.

Table 23: The role of the national government in promoting PPPs by Housing Developers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Install housing infrastructure, serviced land	1.43	0.35	1	Highly Important
2.	Creating awareness, pace-setters, champions	1.29	0.36	2	Highly Important
3.	Create enabling environment	1.32	0.36	2	Highly Important
4.	Use international best practice & customize locally	1.54	0.47	4	Highly Important
5.	Provide incentives and subsidies to	1.61	0.53	5	Moderately Important

Source: Author (2020).

The Housing Practitioners seemed to agree with the Housing financiers where the first role they thought for the government was the provision of incentives and subsidies while decentralizing some functions, which recorded a standard deviation of 0.35. Number two, they stated that the government should install housing infrastructure, provide serviced land, land banking and utilize the concept of cooperative or Sacco housing, which recorded a standard deviation of 0.36. Thirdly, they noted that it should scout for the best international best practice and customize the PPPs to the local situation, which recorded a standard deviation of 0.36. Fourthly, it should create an enabling legal and regulatory environment to make the sector more effective and reduce the inefficiencies to the sector, which recorded a standard deviation of 0.38. Fifthly, the government should create awareness, pace-setters, champions, regulations, structures and institutions for PPPs, a statement that recorded a standard deviation of 0.38.

These rankings show that housing practitioners ranked all the five roles of the national government: 1. Providing incentives and subsidies to developers; 2. Installing housing infrastructure; 3. Scouting for international best practices in the application of PPPs; 4. Creating an enabling environment for the PPPs application; 5. Creating awareness, pace-setters, champions and regulations for effective application of the concept. The ranked opinions of the housing practitioners are as presented in table 24.

Table 24: The role of the national government in promoting PPPs by Housing practitioners

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Provide incentives and subsidies	1.23	0.35	1	Highly Important
2.	Install housing infrastructure, serviced land /land bank	1.30	0.36	2	Highly Important
3.	Scouting for international best practice & customize locally	1.20	0.36	2	Highly Important
4.	Create enabling environment to increase efficiency	1.37	0.38	4	Highly Important
5.	Creating awareness, pace-setters, champions	1.13	0.38	5	Highly Important

Source: Author (2020).

When the panels were combined and ranked, it was found out that the national government should undertake the following functions to make PPPs applicable in down-market urban housing: First, it was found out was there was the need for the national government to scout for best international practice in the practice of applying PPPs in the country, which recorded a standard deviation of 0.24. The government in Kenya should seek to learn from the Canadian, US, UK, France, Malaysia, Singapore, China, South Africa, Egypt, Ghana and a host of other nations that have successfully implemented PPPs in various sectors, including housing. The national government should then customize what has worked to the local situations; while at the same time seeking to modify some aspects or utilize the local situations to fit into the PPP agenda. This is because the PPP agenda has been recognized as one of the best alternative and available financing models for the development of housing in Kenya.

Secondly, the national government should seek to amend the existing PPP Act, 2013 and in the process create an enabling environment both legally and institutional wise to suit PPPs in social sectors like down-market urban housing. This statement recorded a standard deviation of 0.34.

The legal issues have been sorted by the PPP Act 2013 and other regulations made after this but the national government needs to go beyond the law and make the playing field for PPPs level. This will attract as many investors and developers as possible and more specifically provide policy directions on the utilization of PPPs. Stakeholders in the housing development for example have proposed the changes of the principal PPP law 2013 to allow for the cabinet secretary responsible for housing to exempt state organs from some PPP provisions.

Thirdly, it was found out that the national government should install social and physical infrastructure in the prime land which has been zoned as a housing estate, this opinion recorded a standard deviation of 0.37. The national government should provide serviced land and undertake land banking within its prime land to avail land at all times for the private developers to construct down-market urban housing. There should be concerted efforts in utilizing cooperatives movement methods of resource mobilization, savings and investments to develop down-market urban housing. Kenya according to the State Department for Cooperatives has over 700 housing cooperatives, through which adequate housing can be provided by just installing housing infrastructure in the land which they own and have earmarked for housing development. It was found out that the United Nations favour the use of the cooperative model in the delivery of housing for citizens.

Fourthly, it was found out that the national government should develop a package of incentives and targeted subsidies to the private developers who meet pre-agreed conditions; have shown the potential to partner with the public sector to deliver housing. This recorded a standard deviation of 0.38. The incentive structure should include relaxation or fast-tracking of the project approval processes. The beneficiaries could have also some incentives directed to them like quantifying their contribution to the development of the down-market urban housing. This could be done through for example counting their labour as sweat equity contribution, tax rebates for the first time homeowners; allowing their savings in cooperatives and other group investment channels to attract some tax deductibility. This has the effect of encouraging more to save and hence own a home in the process. Developers who are incentivized can utilize more efficiently the assets of the public authorities like land, dilapidated housing stock and human resources to deliver more housing stock.

Fifth, it was found out that the national government should create more awareness on how PPPs work, their benefits and how counties and other contracting agencies can tap into PPPs. This should also include the processes which the contracting authorities should follow to ensure success in PPPs, a statement which recorded as standard deviation of 0.57. There should be some pacesetters set up by the government who will set a learning curve for others to follow. The national government should galvanize support for PPPs through national symposiums, seminars, workshops, setting up PPP champions and also promoting the learning of PPPs in the technical and vocational institutions and other higher learning institutions in the country. The national government should also set up various funds to promote the construction of down-market urban housing, which should have diverse sources of funds including donations and contributions from the High Net Worth Individuals (HNWI's), who are willing to contribute to such worthy causes. This is what is envisaged under article 68 of the Kenyan PPP Act, 2013. The PPP Unit should be strengthened further and in some cases make it autonomous and free of control by ministries and be left to be answerable to the President. The human resource capacities for the PPP unit should be strengthened by recruiting more staff in diverse fields of knowledge, who will in turn build capacities of the Ministries and counties.

The combined rankings show that the panels collectively highly rated The combined ranking of the opinions of the three panels on the role of the national government in promoting PPPs is as four roles of the national government in promoting the use of PPPs for down-market urban housing: 1. Scouting for international best practices in the application of PPPs and customizing the same to the local situation; 2. Amending the existing PPP laws and making them amenable to the housing delivery situation; 3. Installing physical and social offsite and onsite infrastructure, alongside serviced land, land banking and promoting the use of cooperatives in the housing deliver strategies. This is as presented in Table 25.

Table 25: Combined roles that the national government should play to make PPPs applicable

S/No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Use international best practices & customize locally	2.11	0.24	1	Highly Important
2.	Amend the existing laws, create enabling environment	1.24	0.34	2	Highly Important
3.	Install physical and social infrastructure, land banking	1.14	0.37	3	Highly Important
4.	Provide incentives and subsidies to private developers	1.13	0.38	4	Highly Important
5.	Create awareness on PPPs, pace-setters	1.86	0.57	5	Moderately Important

Source: Author (2020).

It was noted that the counties too had some roles to play to make PPPs applicable in down-market urban housing. The Housing Financiers noted that the counties can: First, they can develop housing infrastructure within their counties, undertake adequate county planning and land banking for housing development, a statement which recorded a standard deviation of 0.35. Secondly, counties can create local-level incentives, develop local skills and create awareness on the application of PPPs, which recorded a standard deviation of 0.36. Thirdly, counties can undertake strategic negotiations and partnerships with stakeholders at the local level for the utilization of PPPs, which recorded a standard deviation of 0.39. Fourthly, counties can customize the national PPP laws and regulations which makes it possible for investors to come on board for the development of housing, a statement which ranked with a standard deviation of 0.58.

These rankings show that housing financiers highly rated three roles for counties in promoting the use of PPPs: 1. Providing housing infrastructure through county planning and land banking for housing development; 2. Creating local level incentives, skills and awareness creation; 3. Undertaking strategic negotiations and partnerships with stakeholders, as illustrated in figure 25.

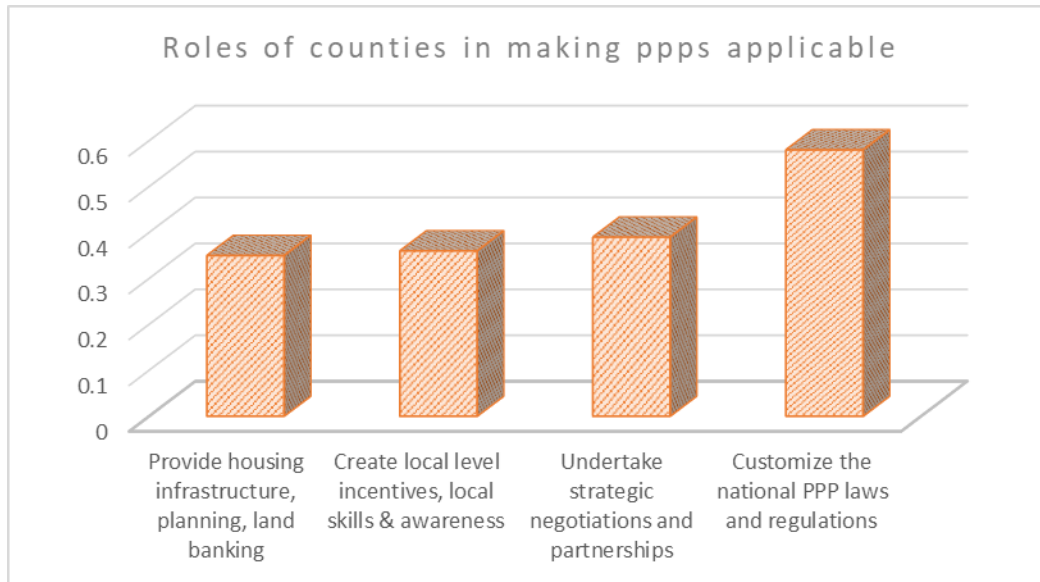


Figure 25: Role of counties in making PPPs applicable by Housing financiers

The Housing developers differed slightly and noted that counties should first create local level incentives, develop local skills and create awareness on the PPPs application in housing, an opinion which recorded a standard deviation of 0.35. Secondly, counties can provide housing infrastructure, undertake county planning and land banking for housing, a statement which recorded a standard deviation of 0.36. Thirdly, counties can undertake strategic negotiations and partnerships with stakeholders on the utilization of PPPs for down-market urban housing, which recorded a standard deviation of 0.39. Fourthly, counties should customize the national PPP laws and regulations, a statement which recorded a standard deviation of 0.56.

These rankings show that the housing developers highly rated three roles for the counties in promoting the use of PPPs for down-market urban housing: 1. Creating local level incentives, skills and awareness creation; 2. Providing housing infrastructure, county planning and land banking for housing development; 3. Undertake strategic negotiations and partnerships with stakeholders as illustrated by figure 26.

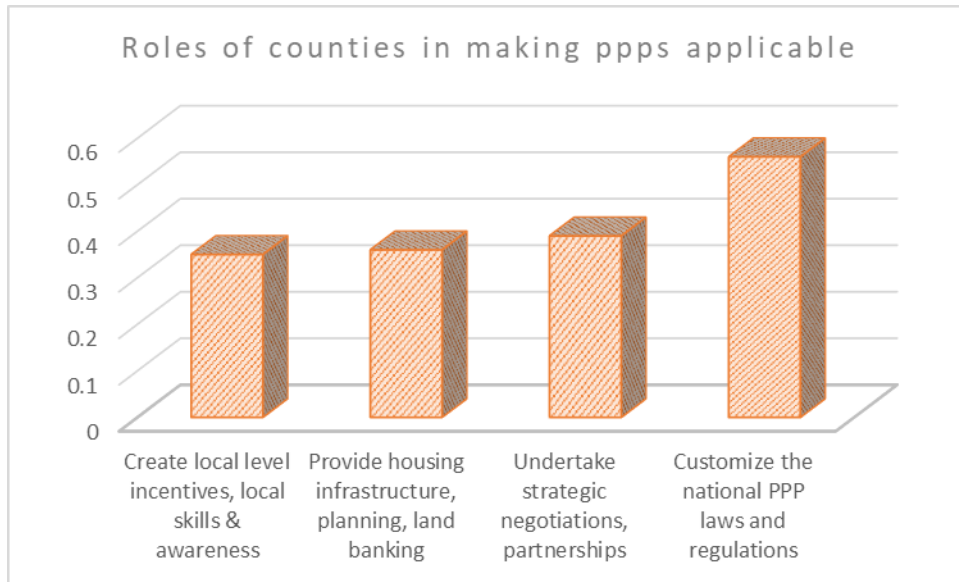


Figure 26: Role of counties in making PPPs applicable by Housing financiers

Source: Author (2020).

The Housing Practitioners noted that the counties should first provide requisite housing infrastructure, do adequate county planning, which will also set aside land for housing through land banking, recording a standard deviation of 0.35. Secondly, counties should create local level incentives, develop local skills, create awareness, a statement which recorded a standard deviation of 0.36. Thirdly, counties customize the national PPP laws and regulations to the local situations, which recorded a standard deviation of 0.37. Fourthly, counties should undertake strategic negotiations and partnerships with stakeholders at the local level to promote PPPs in down-market urban housing, a statement which recorded a standard deviation of 0.38.

These rankings show that the housing practitioners highly rated all the four aspects for counties in their efforts to promote the use of PPPs: 1. Providing housing infrastructure; 2. Creating local level incentives, skills and awareness; 3. Customizing the national PPP laws and regulations; 4. Undertaking strategic negotiations and partnerships with stakeholders, as shown in figure 27.

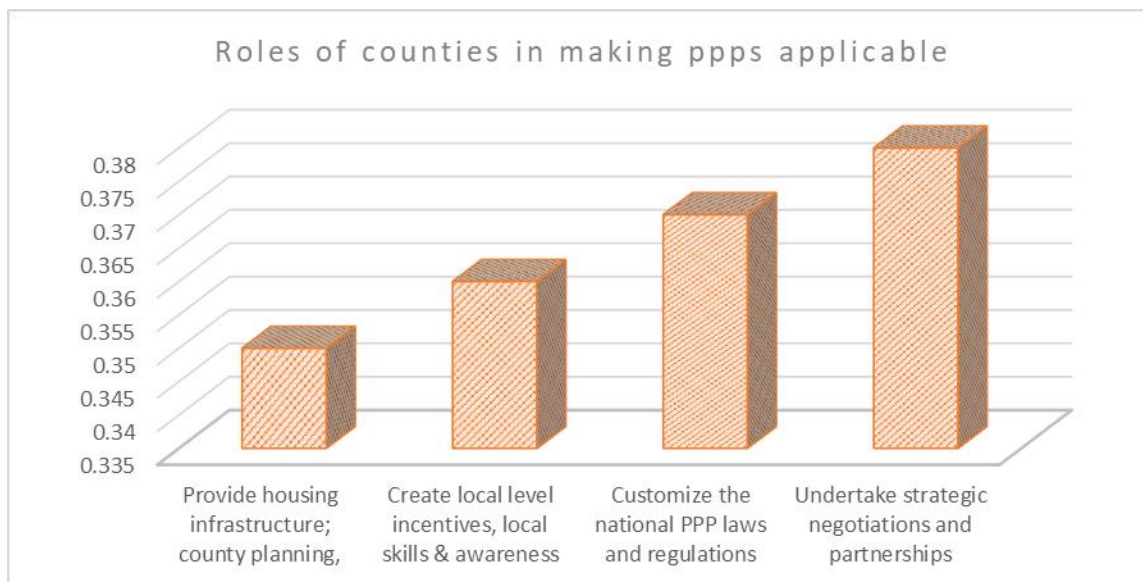


Figure 27: Role of counties in making PPPs applicable by Housing practitioners

Source: Author (2020).

Combined, the panels noted that the counties can undertake the following functions which will a long way in utilizing PPPs at the local level. Firstly, counties can create various incentives at the local levels targeted to the developers and consumers of down-market urban housing. Such incentives include land banking, which avails land to developers who have expressed an intention of developing down-market urban housing, this statement recorded a standard deviation of 0.33 or 19%. Through the polytechnics (Schedule IV part II of the constitution mandates counties to be in charge of village polytechnics), they can equip residents with requisite skills like the application of PPPs, which can be included in the curricula of such institutes. Counties can also create awareness alongside the national government and PPP unit and finally, they can operationalize the application of PPPs through adequate county laws and regulations. The application and utilization of PPPs should be included in the preparation of county integrated development plans (CIDPs) to attract more funding. It was noted that only three counties have tried the application of PPPs so far in Kenya, namely Nakuru, Murang’a and Laikipia but which have not succeeded as required due to a host of factors, among which is lack of local adequate skills and capacity.

Secondly, it was found out that counties through their budgetary support can provide social and physical infrastructure in the areas they have zoned and planned for housing development, a

statement which recorded a standard deviation of 0.34 or 20%. The infrastructure will attract homeowners or organized groups in addition to developers to put up affordable and down-market urban housing. This is because the cost of the off-site and on-site infrastructure will have been borne by the county government. Major urban areas have limited coverage of water, sewer, security or street lighting, footpaths and access roads to bitumen or cabbro standards. This has made investors to be less attracted for housing development in such areas, a situation that can get worse for down-market urban housing. Once counties provide such trunk infrastructure, it is a sure incentive to developers to put up down-market urban housing at a lower cost than is the tradition. On the same breadth, counties should undertake comprehensive county planning programmes through which land is set aside for various uses including for the development of down-market urban housing. Land set aside can be allocated to developers on the condition that they put up down-market urban housing. Counties should also come up with housing development master plans and strategic planning for housing provision; such plans can attract local and international developers as required.

Thirdly, counties should undertake strategic negotiations and enter into such strategic partnerships with developers, financiers, banks and owners of capital from within and outside the counties for the development of down-market, this statement recorded a standard deviation of 0.37 or 21%. Such partnerships can bring on board more technologies; innovative designs, financing, delivery and uptake models and replicable construction methodologies. This partnership then brings about a more successful construction of down-market urban housing more than it has been the practice.

Fourthly, counties should customize the national PPP legal and regulatory environment to the local situation, this recorded a standard deviation of 0.69 or 40%. They should also set up their own PPP county units and institutions to steer the PPP agenda as necessary for the local situations.

These rankings by the combined panels show that they highly rated three roles for counties: 1. creating various incentives at the local level, skills and awareness creation; 2. Providing social and physical infrastructure; 3. Undertaking strategic negotiations and partnerships with developers, as shown in figure 28.

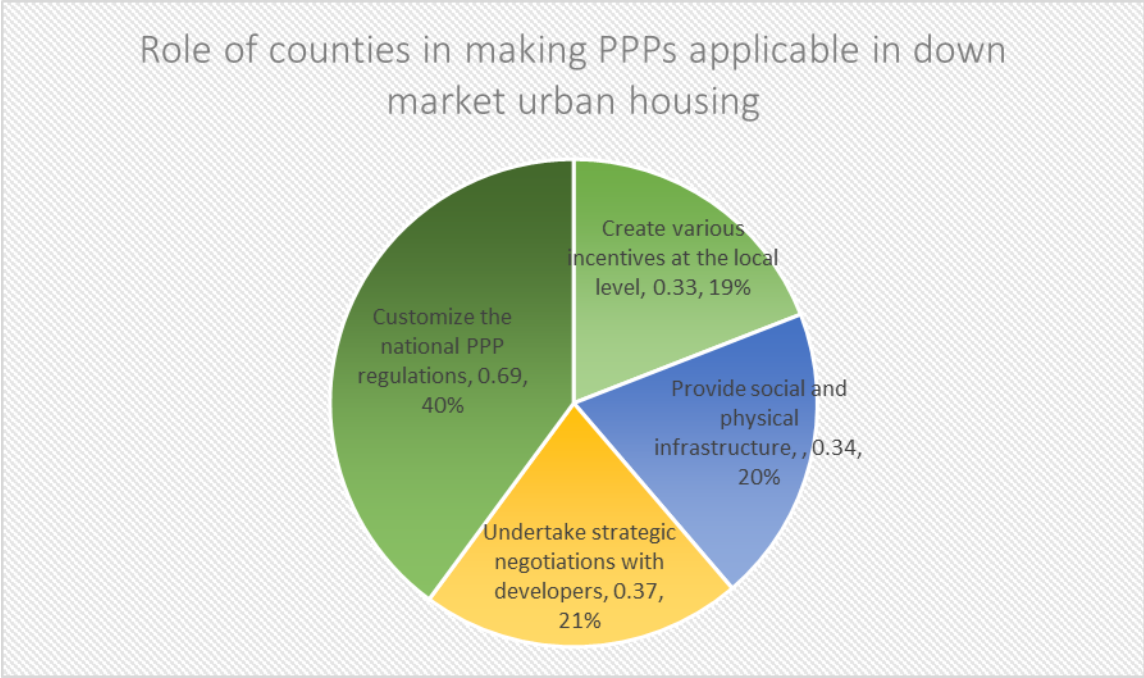


Figure 28: Role of counties in making PPPs applicable as per the panels

Source: Author (2020)

There have been debates in recent years on the need to utilize the public land for developing infrastructure, including down-market urban housing in Kenya. This is a suggestion that had been carried over from the first round and kept evolving as the rounds progressed to the final round. The Housing Financiers stated that first, land cannot be used for housing the low-income urban households as this would disenfranchise other Kenyans, a statement which recorded a standard deviation of 0.10. Secondly, another group within the panel stated that it can be used depending on some arrangements, which recorded a standard deviation of 0.35. Both the first and second statements are within the highly important category, hence it was argued that it depends on the modalities of using such land developed within the project structure. These rankings show that the housing financiers highly rated the two issues under consideration, implying that the process could go either way depending on the structuring of the PPP transaction, as illustrated in table 26.

Table 26: Opinion on the utilization of public land for housing PPPs by Housing Financiers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	No it should not be (9%) round two	2.43	0.10	1	Highly Important
2.	Yes it should be used (91%) round two	1.23	0.35	2	Highly Important

Source: Author (2020).

The Housing Developers stated that first, such land can be used for down-market urban housing, recording a standard deviation of 0.36. This weighting falls within the highly important remark. Another group within the panel noted that such land cannot be used for down-market urban housing, with a standard deviation of 1.55. This mark falls within the mild unimportant remark, implying that the statement does not have a lot of weight, hence this group is considered to have stated that such land can be used for housing development. These rankings show that the housing developers highly rated the first answer to the effect that public land should be used for developing down-market urban housing, as illustrated in table 27.

Table 27: Opinion on the utilization of public land for housing PPPs by Housing Developers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Yes it should be used (91%) Round two	1.29	0.36	1	Highly Important
2.	No it should not be (9%) Round two	4.71	1.55	2	Mild unimportant

Source: Author (2020).

Housing Practitioners stated that first, such land should be used for the down-market urban housing, with a standard deviation of 0.35. The second group within the panel noted that such land cannot be used for down-market urban housing, with a standard deviation of 1.52. The 1.52 standard deviation mark is ranked as being mild unimportant by the researcher showing that the housing practitioners agreed with the notion of using land for developing down-market urban housing. These rankings show that housing practitioners highly rated the fact that public land should be used for developing down-market urban housing in Kenya, as presented in table 28.

Table 28: Opinion on the utilization of public land for housing PPPs by housing practitioners

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Yes it should be used (91%) round one	1.27	0.35	1	Highly Important
2.	No it should not be (9%) round one	4.70	1.52	2	Mild unimportant

Source: Author (2020).

On a combined score, it was noted that first of all, the public land can be used for the development of down-market urban housing, which recorded a combined standard deviation of 0.11. This statement and ranking fall within the highly important range and which holds significant weight. Secondly, the combined panels noted that such land cannot be used for down-market urban housing, which recorded a combined standard deviation of 0.15, a remark within the highly important range, hence still a statement that holds some weight. This implies that the usage of the public land will depend on the structuring of the arrangements to use such land among other strategies. These rankings show that the combined panels highly rated the two answers, implying that structuring of the process is what would determine the use of such land or not for developing down-market urban housing, as illustrated in table 29.

Table 29: Combined opinion on the utilization of public land for housing development

S/no	Item	Mean	Standard Deviation	Rank	Remark
1.	Yes (91%) Round two	2.37	0.11	1	Highly Important
2.	No (9%) Round two	2.42	0.15	2	Highly Important

Source: Author (2020).

It was also noted for such public land to be utilized for down-market urban housing, there must be arrangements and frameworks which should be implemented. Housing Financiers stated that four modalities must be worked on in the utilization of such land. First, joint ventures should be undertaken which should be made in such a way that developers can recoup their money and the government must offer guarantees in addition to such land, a statement that recorded a standard deviation of 0.35. Secondly, the government should provide housing infrastructure in addition to the land offered for housing development, which recorded a standard deviation of 0.41.

Thirdly, the public sector should only partner with strategic developers and partners who are capable of mobilizing resources and implementing the project, which recorded a standard

deviation of 0.43. Fourthly, the public sector should use such land provided for down-market urban housing as collateral in the project, which recorded a standard deviation of 0.56. These rankings show that the housing financiers highly rated three modalities for using public land for housing development: 1. The use of joint ventures and the additional role of government in offering guarantees and incentives; 2. The government should provide housing infrastructure and other enabling packages; 3. The public sector can partner with strategic partners where they use such land for down-market urban housing, as presented in table 30.

Table 30: Modalities for using Public land for housing by housing financiers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Joint ventures, government offer guarantees	1.27	0.35	1	Highly Important
2.	Government provides housing infrastructure	1.43	0.41	2	Highly Important
3.	Public sector partner with strategic & capable developers	1.47	0.43	3	Highly Important
4.	Public sector use land as equity contribution	2.00	0.56	4	Moderately important

Source: Author (2020).

The Housing Developers had a slight change in the order of modalities that must be used for the utilization of public land for housing development. First, they noted that the government should provide housing infrastructure in such land to lower the associated costs of construction and hence the final pricing of the developed units. This recorded a standard deviation of 0.35. Secondly, the public sector should use such land as equity contribution in the development process, with a standard deviation of 0.36. Thirdly, the public sector should partner with strategic and capable partners who can develop the assigned land, which recorded a standard deviation of 0.36. Fourthly, the government should implement a joint venture with selected private developers and structure it in a way that allows the private sector to recoup their investment. The government should also provide some guarantees in such a deal, a statement which recorded a standard deviation of 0.62.

These rankings show that the housing developers highly rated three modalities for the use of public land for the development of down-market urban housing: 1. Government should provide infrastructure in such land; 2. Public sector should use such land as equity contribution in a partnership with a private developer; 3. Public sector should partner with strategic partners who

have the requisite skills, technology and finances where they offer such land, as illustrated in table 31

Table 31: Modalities for the utilization of public land for housing by housing developers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Government provides housing infrastructure	1.25	0.35	1	Highly Important
2.	Public sector to use land as equity contribution	1.29	0.36	2	Highly Important
3.	Public sector partner with strategic developers	1.21	0.36	2	Highly Important
4.	Joint ventures, government offer guarantees	1.71	0.62	4	Moderately important

Source: Author (2020).

The Housing Practitioners differed with the rest in that they stated that: First, the public sector should partner with strategic and capable partners who can develop the assigned land, recording a standard deviation of 0.35. Secondly, the government should provide housing infrastructure in addition to the assigned land, a statement which recorded a standard deviation of 0.37. Thirdly, the public sector should the land it has assigned to a developer for down-market urban housing as an equity contribution in the project, which recorded a standard deviation of 0.39. Fourthly, the partners should form a joint venture which allows the private sector to recoup their investments and also the public sector should provide some guarantees to the developers, which recorded a standard deviation of 0.58.

These rankings show that housing practitioners highly rated three modalities: 1. Public sector should partner with strategic partners where it has offered such land for housing development; 2. Government should provide housing infrastructure in addition to such public land availed for the project; 3. The public sector should equate such land to equity contribution in the development process, as illustrated in table 32.

Table 32: Modalities for using Public land for housing by Housing practitioners

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Public sector partner with strategic developers	1.23	0.35	1	Highly Important
2.	Government provides housing infrastructure	1.33	0.37	2	Highly Important
3.	Public sector to use land as equity contribution	1.40	0.39	3	Highly Important
4.	Joint ventures, government offer guarantees	1.67	0.58	4	Moderately important

Source: Author (2020).

A combination of the three panels showed that the need for undertaking joint venture partnerships between the public sector which offers land is the first preferred model in developing down-market urban housing. This opinion recorded a standard deviation of 0.35. The joint venture arrangement must be structured in such a way that allows the private developer to recoup their investment, while the government should undertake some guarantees for offtake of the developed housing units. Joint ventures have become popular because they are increasingly being viewed as strategic substitutes for the highly competitive world. It has been used to absorb investments held by both public and private entities in developing commonly agreed project outcomes, which could include down-market urban housing.

Secondly, where the public sector offers land for such housing programmes, the government agencies should partner with the private sector who shows the capacity to have adequate financial resources, who can then construct the houses as desired. This opinion recorded a standard deviation of 0.35. The government should further set the necessary regulations to guide the development process, where for example 70% of the developed housing units are to be allocated to the low-income urban households and 30% goes to middle-income urban households. The capacity of the private developer should be examined in terms of financial, technological, managerial, innovativeness and capabilities to develop down-market urban housing. The government can undertake land swaps where the developer is allocated prime land on which commercial housing units are done but a given percentage is set aside for low-income urban households. This should go hand in hand with the provision of targeted incentives, social and physical infrastructure all of which will lead to a reduction of the final housing unit prices to be afforded by the low-income urban households. This ensures that there is an integration of

economic classes, which can achieve national cohesion aspirations; through this integration, the middle-income households can subsidize the low-income urban households, thereby pulling them away from the poverty curse. Land swap has been recognized as one of the PPP models in Kenya as per the PPP Act, 2013.

Thirdly, where the public sector offers such land, it should also provide physical and social infrastructure, which should be done where land is ideal. It should be developed in such a way that such housing units will be located near jobs and employment opportunities, hence reducing the need for much travel by the residents. The housing developed in such land should be done after a master planning which incorporates all the requirements of modern living. The government must undertake mass housing developments in such land and ensure it incorporates all the classes of people. The housing development must ensure that residents can access the public transport system easily, which makes more of the citizens be interested in such schemes. This opinion recorded a standard deviation of 0.36. The importance of housing infrastructure has been recognized by the Kenyan ministry of housing which in 2009 set up a section to deal with its provision.

Fourthly, in cases where the government provides public land, it should use the contributed land resource as an equity contribution in the down-market urban housing development. This recorded a standard deviation of 0.59. Instead of the public sector contributing actual money, such land can be costed and hence the value of the land can be taken as the government equity contribution. This has the effect of leading to a bigger reduction in the cost of the final units of down-market urban housing. This is taken in the Kenyan context where the price of land accounts for almost 30% in the actual cost of developing a housing unit.

These rankings show that on a combined level, the panellist highly rated three modalities which should be used where public land has been availed for the development of down-market urban housing: 1. Undertake joint ventures and structure the partnership such that the investors can recoup their investment on time; 2. The public sector should partner with developers who are strategic and can deliver as per specifications; 3. It should provide social and physical infrastructure in ideal locations in addition to such land provided, as shown in table 33.

Table 33: Combined opinion on the modalities of PPPs where public sector contributes land

S/No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Undertake joint ventures (JVs), investors recoup investments	1.27	0.35	1	Highly Important
2.	Partner with developers with capacity	1.23	0.35	1	Highly Important
3.	Provide social & physical infrastructure ideal location ,	1.19	0.36	3	Highly Important
4.	Government land can be used as equity contribution	1.68	0.59	4	Moderately Important

Source: Author (2020).

The panels also provided the idea that the Harambee spirit which is well entrenched in Kenya can be applied in the development of down-market urban housing. The Housing Financiers thought that the development of down-market urban housing can benefit by recording a standard deviation of 0.36. Another group within the panel believed that such a process cannot benefit from the Harambee spirit, recording a standard deviation of 1.64. This is a rank deemed mild unimportant, hence the first statement is more significant and carries the greater weight. Hence it was concluded that Housing Financiers agreed with the statement that some elements of entrenched Harambee spirit can benefit PPPs processes for down-market urban housing.

These rankings show that the housing financiers highly rated the fact that indeed PPPs can benefit from the entrenched Harambee spirit in Kenya as illustrated in table 34.

Table 34: Benefit of PPPs from Harambee spirit in Kenya by Housing financiers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Yes it can (87.5%) Round two	1.30	0.36	1	Highly Important
2.	No it cannot (12.5%) Round two	4.07	1.64	2	Mild unimportant

Source: Author (2020).

The Housing Developers agreed with the Housing financiers, in that first, they thought PPPs could benefit from the Harambee spirit, a statement which recorded a standard deviation of 0.36. Other members of the panel believed that PPPs could not benefit from the spirit, a statement which recorded a standard deviation of 1.24. This is a rank deemed highly unimportant, hence it is not significant enough, with the first one, which holds that PPPs can benefit from the Harambee spirit being statistically significant. It was taken therefore that the Housing

Developers agreed with the Housing Financiers that PPPs could benefit from the Harambee practice in Kenya.

The rankings show that the housing developers highly ranked the fact that the application of PPPs in down-market urban housing can benefit from the entrenched Harambee spirit, as shown in table 35.

Table 35: Benefit of PPPs from the Harambee concept by Housing Developers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Yes it can (87.5%)	1.18	0.36	1	Highly important
2.	No it cannot (12.5%)	4.50	1.24	2	Highly unimportant

Source: Author (2020)

The Housing Practitioners too agreed with the other panellists in that they thought that PPPs can benefit from the entrenched Harambee spirit, recording a standard deviation of 0.50. A small portion of the panel believed that it could not benefit from the concept, which recorded a standard deviation of 1.46. This statistic was deemed highly unimportant; hence it was not statistically significant enough. The research concluded that the Housing Practitioners too supported the idea that PPPs could benefit from the Harambee concept as practiced in Kenya.

These rankings show that the housing practitioners highly rated the fact that indeed PPPs can benefit from the entrenched Harambee spirit in Kenya, as illustrated in table 36.

Table 36: The benefits of PPPs from Harambee concept by Housing Practitioners

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Yes it can (87.5%) round two	1.57	0.50	1	Highly Important
2.	No it cannot (12.5%) round two	4.67	1.46	2	Highly unimportant

Source: Author (2020).

On a combined point for the three panels, it was found out that PPPs can benefit from the entrenched Harambee concept in Kenya, which in round two Delphi had a score of 87.5%. The panels combined recorded a standard deviation of 0.25, a statistic that was ranked as highly important in this research. This made it be concluded that PPPs can benefit from the Harambee spirit in which some features are key in promoting the actualization of PPPs in Kenya.

The panels who thought that PPPs could not benefit from the entrenched Harambee spirit, who in round two Delphi scored 12.5%, in round three they registered a standard deviation of 1.27, which is ranked as highly unimportant in the research, hence it did not register an adequate and significant score. The rankings show that the indeed the application of the PPP process can benefit from the entrenched Harambee spirit in Kenya, because the earlier score was 87.5%.

It was found out that the panellists thought that PPPs could benefit from the Harambee concept because of two main related issues with PPPs which are practiced under the latter.

The Housing Financiers thought that the first has to do with the aspects of borrowing and utilizing the Saccos or the concept of cooperatives. This has been occasioned by the fact that such organized groups buy land, undertakes gradual savings and sometimes use their labour in the housing construction as sweat equity, this statement recorded a standard deviation of 0.35. This is a highly important score, as it is within the highly important range. Secondly, through the Harambee concept and which can be of use in PPPs, the public sector undertakes to provide housing infrastructure, fast track the project approval processes, issue guarantees, incentives and part financing. The developers who come under this cooperative spirit can provide technology, capital, innovation and managerial expertise which speeds up the housing construction, which is a way of cooperation between the public, private and the target beneficiaries themselves. This recorded a standard deviation of 0.55.

The ranking shows that the housing financiers highly rated the fact that application of PPPs can borrow from the Harambee spirit the issue of applying the Saccos and cooperative method, where organized Saccos buy land, keep savings and the households provide labour as “sweet equity” in developing down-market urban housing, as shown in table 37.

Table 37: Features of the Harambee concept which can benefit PPPs by Housing Financiers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Saccos concept of buying land, savings & labour (sweat equity)	1.27	0.35	1	Highly important
2.	Government provides housing infrastructure, incentives, part financing; developers = technology, capital, innovation	1.63	0.55	2	Moderately important

Source: Author (2020).

The housing developers agreed with the housing financiers and stated that the first thing was that the PPPs could borrow aspects of the cooperative or Saccos. This has been practiced where the organized groups can buy land, save gradually and use their labour as sweat equity in the development of down-market urban housing, this recorded a standard deviation of 0.36. The second idea was that the government can provide physical and social infrastructure, fast track approval processes, offer guarantees, incentives and part financing. Developers can come up with adequate technology, capital and innovation, a statement that recorded a standard deviation of 0.37.

The ranking shows that the housing developers ranked the two issues almost at the same score, implying that the application of PPPs in down-market urban housing can borrow from the Harambee spirit. In the Saccos resource mobilization method, the government can bring on board their contribution to the organized groups through the provision of housing infrastructure, fast-tracking approval processes, incentives and part financing, as presented in table 38.

Table 38: Features of the Harambee concept PPPs can borrow from by Housing Developers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Saccos concept of buying land, savings & labour (sweat equity)	1.29	0.36	1	Highly important
2.	Government provides housing infrastructure, incentives, part financing; developers = technology, capital, innovation	1.36	0.37	2	Highly important

Source: Author (2020).

The Housing practitioners agreed with the rest and noted that the PPPs can borrow from the cooperative method of buying land, gradual savings and provision of labour as form of sweat equity. This statement according to the panel had a standard deviation of 0.36. Secondly, the concept can be borrowed such that the government provides housing infrastructure, faster approvals, guarantees, incentives, offer some part financing; while the developers are left to offer capital, technology and management expertise. This statement recorded a standard deviation of 0.58.

The ranking shows that housing practitioners highly rated the aspect of utilizing the Saccos method of resource mobilization in the application of PPPs for down-market urban housing, as shown in table 39.

Table 39: Features of the Harambee concept that PPPs can borrow by Housing practitioners

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Saccos concept of buying land, savings & labour (sweat equity)	1.30	0.36	1	Highly important
2.	Government provides housing infrastructure, incentives, part financing; developers = technology, capital, innovation	1.67	0.58	2	Moderately important

Source: Author (2020).

When the opinions of the three panels were put together, it was found out that the current entrenched Harambee spirit in Kenya has some features which can be adopted in the provision of down-market urban housing through PPPs. First, the Savings and Cooperative Societies (Saccos) have evolved as a form of corporate Harambee which should be harnessed in the provision of down-market urban housing. This recorded a standard deviation of 0.30. Saccos buy land in bulk, accumulate savings over time for advancing soft loans to members. Members may offer labour in some instances as equity financing for the construction of down-market urban housing. It was found that there are over 77,000 housing cooperatives all over Kenya, which have been able to mobilize resources for the construction of housing units for members. According to the Financial Sector Regulators report (2018), Saccos had advanced 331,212,000,000 worth of loans to members in 2017 up from 297,604,000,000 in 2016, representing an 11.29% increase. This shows that they remained the single most source of loans for Kenyans; the same can be used for the development of down-market urban housing.

Secondly, it was found out that Saccos can be assisted by the government to develop down-market urban housing, through the provision of trunk social and physical infrastructure. This is the assistance from the government that cooperatives have always cited for them to robustly develop housing for members. They have cited inadequate housing infrastructure as an inhibitor for housing development within the land they hold. This recorded a standard deviation of 0.36. The government can offer targeted incentives, in some cases give part of the financing to reduce the final housing product price to increase affordability to low-income urban households. The developers who partner with such organized groups and the government can then provide capital, innovation and expertise in form of the latest building technologies all of which can lead to faster completion and delivery of the down-market urban housing units. Cooperatives have a huge

potential for developing down-market urban housing with the right enabling environment, including increased access to debt financing, equity funding, pre-development purchase, purchasing developed units for members and also the facilitation for the development of existing assets like land and uncompleted housing units.

The combined panels ranking of the Harambee spirit features show that first, the application of PPPs can benefit from the Saccos resource mobilization method; while at the same time, it can benefit from the public sector providing the necessary housing infrastructure and other government support, as shown in table 40.

Table 40: Features of Harambee concept which PPPs can borrow from by combined panels

S/No	Item	Mean	Standard deviation	Rank	Remarks
1.	Utilize the Sacco methods	1.45	0.30	1	Highly Important
2.	Government provides support through infrastructure	1.20	0.36	2	Highly Important

Source: Author (2020).

The panellists highlighted some lessons which have been learnt in the application of PPPs in other sectors of the economy in Kenya, which can be applied in down-market urban housing. There were six major lessons learnt, which the panels were asked to rank. The housing financiers ranked the lessons as follows: First was the need to identify PPP Champions, pace-setters, which bring about workable case studies on PPPs with key performance indicators. This statement recorded a standard deviation of 0.35. Secondly, PPPs have succeeded where bureaucracy is reduced and contracts with the private developers are legally binding, a statement that recorded a standard deviation of 0.35. Thirdly, there is need to build local expertise for PPP transactions and making the concept fit in the local context, a statement that recorded a standard deviation of 0.36. Fourthly, PPPs must be structured in a win-win arrangement through adequate balancing of the stakeholder's interests, a statement which recorded a standard deviation of 0.36.

Fifth, there is need to use various forms and models of PPPs which are best suited for the local environment, which recorded a standard deviation of 0.37. Sixth, there is need to develop manuals, standard designs, procedures and format for application of PPPs so that proponents can just adopt them in the project delivery, which recorded a standard deviation of 0.38.

These rankings show that the housing financiers ranked all the six lessons as highly important. 1. There is need to identify PPP champions and pacesetters; 2. There is need to reduce bureaucracy; 3. There is need to build local expertise for PPP transactions; 4. There is need to structure partnerships that satisfy all the parties; 5. The partnerships should use a diversity of models; 6. The public sector should develop standard manuals, procedures and standards for effective application of the concept, as illustrated in figure 29.

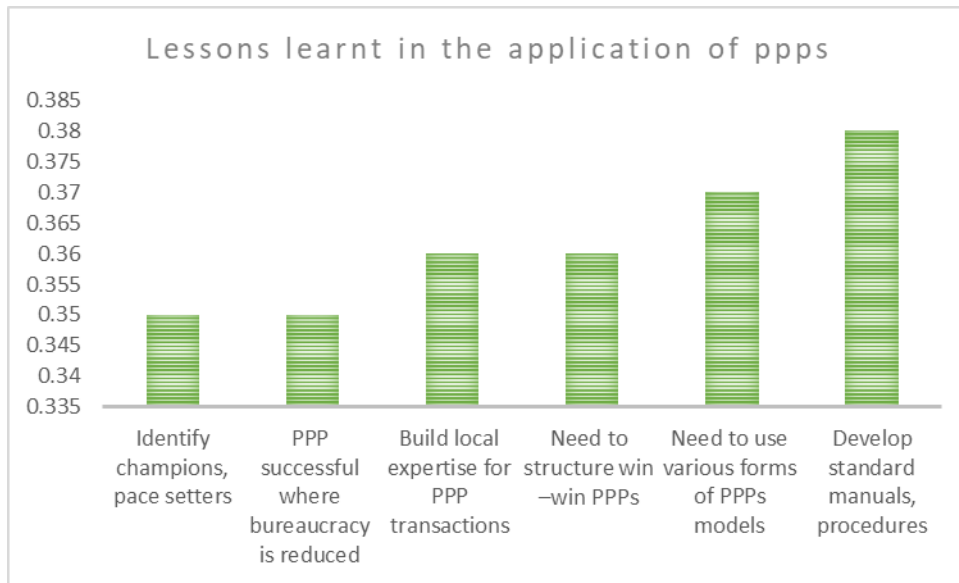


Figure 29: Lessons learnt in the application of PPPs by Housing Financiers

Source: Author (2020).

The Housing Developers slightly deviated from the housing financiers by noting that first, there is need to utilize various forms of PPP models and variations which fit into the local economy. This recorded a standard deviation of 0.36. Secondly, there is need to structure win-win PPPs models and arrangements through an adequate balancing of the stakeholder interests, which recorded a standard deviation of 0.36. Thirdly, it was the need for the identification of champions, pacesetters and formulating workable and bankable PPP arrangements that have key performance indicators embedded herein to guide the developers and stakeholders, which recorded a standard deviation of 0.37.

Fourthly, it was noted that successful PPPs arise from reduced bureaucracy and where the contracts entered into are legally binding, a statement which recorded a standard deviation of 0.39. Fifth, it was noted that there was need for building local expertise for PPP transactions,

which recorded a standard deviation of 0.40. Sixth, there was need to develop standard manuals, procedures and standard designs, recording a standard deviation of 0.65.

The rankings show that housing developers highly rated five lessons: 1. There is need to use various forms and models of PPPs; 2. There is need to structure win-win PPPs which address the needs of all stakeholders; 3. There is need to identify PPP champions and pacesetters for other sectors to learn from; 4. Reduction of bureaucracy; 5. Building of local expertise for the implementation of PPPs, as illustrated in figure 30.

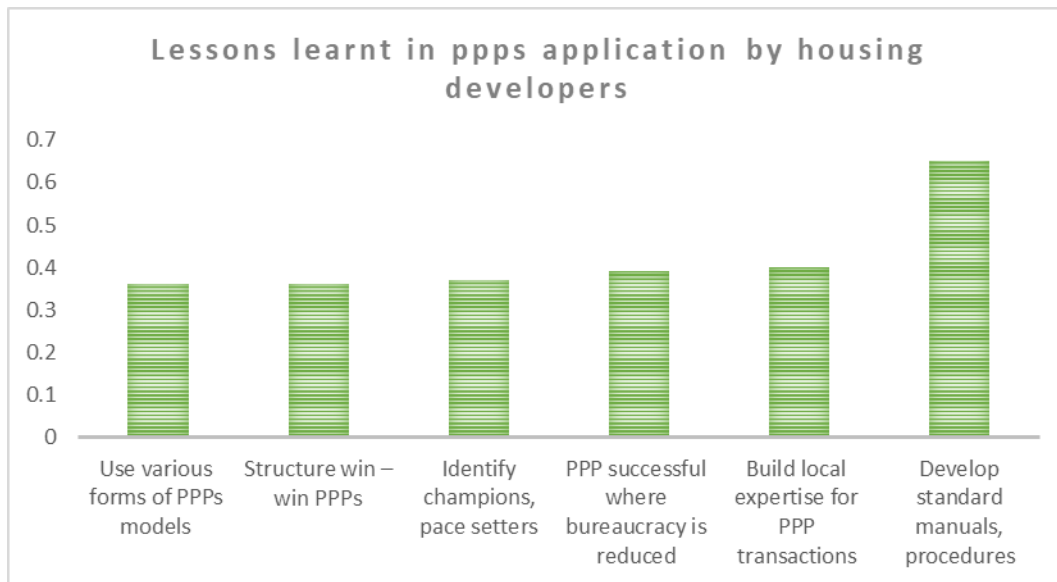


Figure 30: Lessons learnt in the application of PPPs by Housing Developers

Source: Author (2020).

The housing practitioners noted that the first thing should be to identify the PPP champions, pace-setters’ formulation of workable and bankable PPP projects, with embedded key performance indicators, a statement which recorded a standard deviation of 0.35. Secondly was the need to reduce bureaucracy and entrench a culture of honouring contracts entered into legally, which recorded a standard deviation of 0.36. Thirdly, there was the need to structure PPPs which balanced all the stakeholder’s interests and which are termed win-win, reaching a standard deviation of 0.37. Fourthly, the country should build local expertise for PPP transactions, with a standard deviation of 0.37. Fifth, Kenya should use various suitable models of PPPs in down-market urban housing, a statement that reached a standard deviation of 0.41. Sixth, there was need to develop standard manuals, designs and procedures, all of which would make application of the concept easier, which reached standard deviation of 0.64.

The rankings show that housing practitioners highly rated five lessons: 1. Identify pace setters and champions; 2. Reduce bureaucracy; 3. Structure win-win partnerships that address needs for all stakeholders; 4. Build local expertise for PPPs application; 5. Use various models and forms of PPPs, as shown in figure 31.

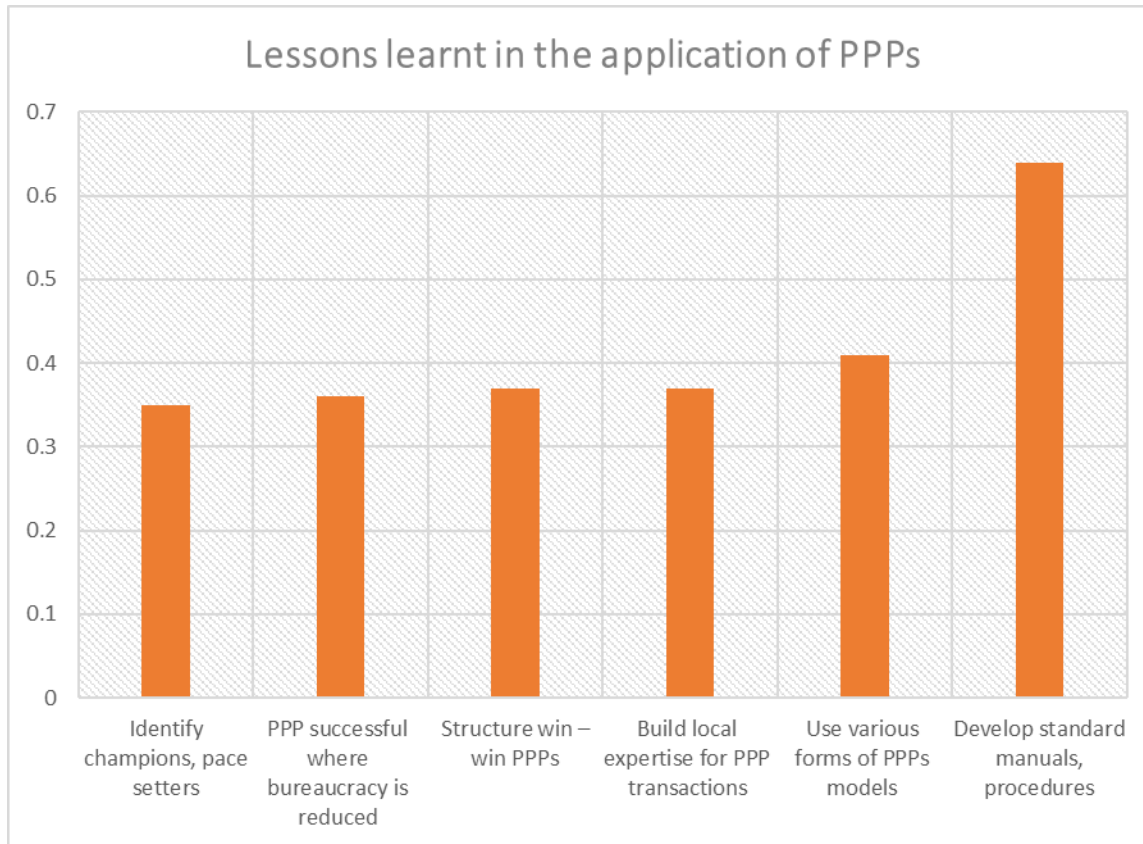


Figure 31: Lessons learnt in the application of PPPs by Housing Practitioners

Source: Author (2020).

When the panels' opinions were combined, it was noted that they all agreed that: First, was the need to build local expertise to undertake PPP transactions, a statement that had a combined standard deviation of 0.30 or 13%. This should be done alongside customizing international PPPs practice to the local Kenyan context.

Secondly, it was pointed out that PPP is a workable and bankable development model for the development of down-market urban housing in Kenya, which recorded a standard deviation of 0.32 or 13%. The concept should be explored further and bureaucracy that follows the utilization of such models be reduced over time. The country should develop an appropriate legal and regulatory framework for the application of PPPs. This is because PPPs have an invaluable role

to play in promoting investments and developments in down-market urban housing across the world.

Thirdly, there should be the development of standard PPP procurement, structuring and development manuals, which also provide adequate procedures and processes to be followed in the PPP development concept. This statement recorded a standard deviation of 0.36 or 15%. The public sector can tie this with the development of housing typologies and designs for down-market urban housing which serves to reduce the cost of designing which is mostly borne by low-income urban households. The development of these standard procedures offers an opportunity to all stakeholders who can either make money or also accelerate the national development through the construction of down-market urban housing to address the huge demand.

Fourthly, there is need to structure, negotiate, construct and come up with workable PPP transactions and programmes through balancing the stakeholders' needs and interest. This recorded a standard deviation of 0.37 or 15%. It has been established that once all the parties have their concerns addressed in a PPP programme, they can come on board and deliver the much needed housing units. Balancing the interests of parties provides another opportunity in developing down-market urban housing, alongside the provision of stable incomes, contracts and opportunities for the private entities over a long period.

Fifth, there is need to identify PPP champions, pace-setters, workable case studies and at the same time establish key performance indicators for all emerging PPPs in down-market urban housing amongst other issues. This recorded a standard deviation of 0.41 or 17%. There is need to set clear roles and functions of all parties to such a contract. The process of identifying the champions and pacesetters has the effect of arousing more interest in PPPs and hence creating more opportunities for financing and developing down-market urban housing. This in turn jumpstarts the economy through creating backward and forward linkages.

Sixth, it was noted that the application of PPPs should follow and utilize various PPP models and approaches like joint ventures, turnkey, land swaps and a mixture of PPP models; all of which creates more opportunities for partnering between the public and private entities in the country. This recorded a standard deviation of 0.65 or 27%. It has been pointed out that in developing down-market urban housing through PPPs, the country should not be limited to the conventional

PPP types but can craft and customize international models to suit the local situation. It was for example found out that the Savings and credit cooperative societies can be used as an example of local PPPs; a method that can be used going forward to develop housing units for low-income urban households.

The rankings show that on a combined level, the panels highly rated five lessons: 1. Build local expertise for PPP transactions to be cost-effective; 2. Reduce bureaucracy; 3. Develop standard manuals, procedures and tools; 4. Structure partnerships in ways that ensure all parties have a win-win situation; 5. Identify champions and pacesetters, as shown in figure 32.

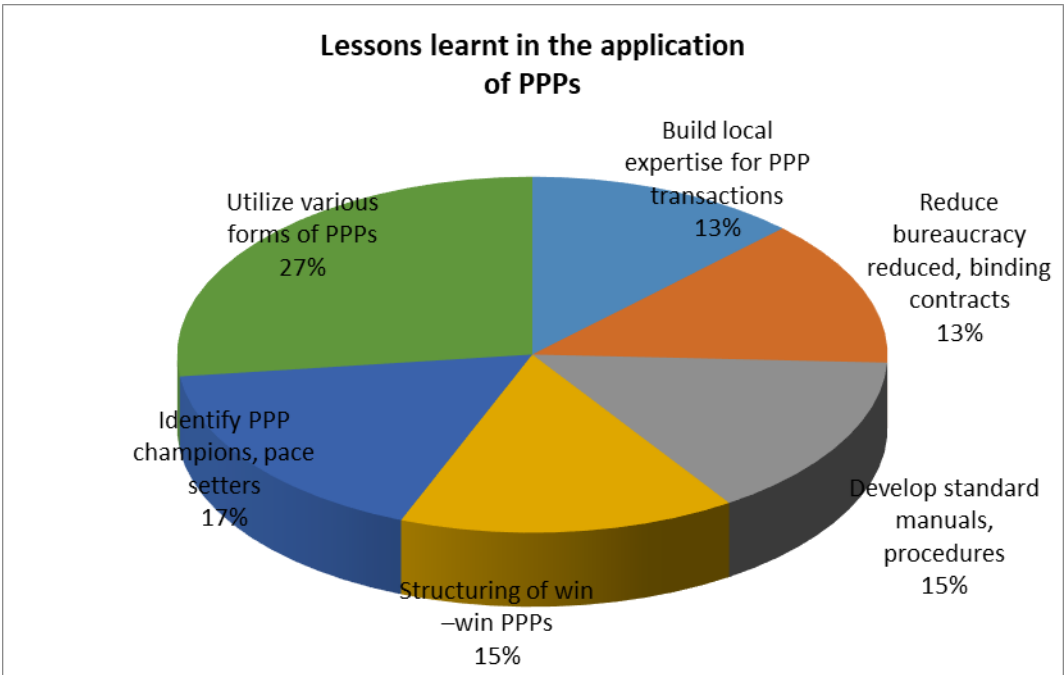


Figure 32: Combined lessons learnt in the application of PPPs by the panels

Source: Author (2020).

The panellists made six suggestions that should be applied in the development of down-market urban housing through PPPs. The Housing Financiers arranged them in the order of: First, there is need to incentivize the private sector through financial and other enabling environments for their optimal performance, this recorded a standard deviation of 0.35. The literature review has shown the power of a well applied incentive structure and how it can lead to the delivery of housing by financiers and developers. Secondly, is the need for the government to enact adequate laws and setting up requisite institutions for PPPs for down-market urban housing, which received a standard deviation of 0.37. Thirdly, PPPs were noted to be a sure way

of meeting the prevailing housing demand in the country, with a standard deviation of 0.38. PPPs when well-structured they can increase the housing stock and deliver adequate housing for citizens. It is the responsibility of the public sector to create a suitable environment for enhanced private sector participation in housing and housing infrastructure through PPPs. There should be positive government interventions at all levels to create the necessary environment for the realization of the benefits of PPPs.

Fourthly, there is need to simplify the PPP procedures and also develop standard designs, manuals for the procurement and operationalization and financing purposes of the PPP process. This recorded a standard deviation of 0.38. Fifthly, it was noted that the government cannot abdicate its role in creating an enabling environment and promoting the application of PPPs in the housing sector. PPPs cannot work without the involvement of the public sector and hence there must be heavy government presence in a PPP framework for housing development for it to succeed. This opinion recorded a standard deviation of 0.39. Sixth, there is need to formulate and apply suitable local PPP models, a statement that recorded a standard deviation of 0.58.

The rankings show that housing financiers highly rated five suggestions: 1. There is need to incentivize the private entities by creating an enabling environment; 2. Enacting adequate laws and regulations with requisite institutions; 3. PPP models present one of the sure ways of delivering down-market urban housing; 4. Simplify the PPPs application procedures, develop standard designs and models; 5. Government role in promoting PPPs is always bigger and heavy, as illustrated in table 41

Table 41: Suggestions on the applicability of PPPs by housing financiers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Incentivize & create enabling environment by govt	1.27	0.35	1	Highly important
2.	Enacting adequate laws & setting adequate institutions	1.33	0.37	2	Highly important
3.	PPP is a plausible way of meeting housing demand	1.37	0.38	3	Highly important
4.	Simplify procedures, standards designs, models	1.13	0.38	3	Highly important
5.	Need for heavy government investment	1.40	0.39	5	Highly important
6.	Formulate & apply suitable local models of PPPs	1.67	0.58	6	Moderately important

Source: Author (2020).

On the part of the Housing Developers, the first suggestion is that PPPs is one of the surest ways through which the adequate housing supply can be attained in Kenya, a statement which was supported by a standard deviation of 0.35. This implies that housing developers see PPP as the next frontier in accelerating the housing delivery in Kenya as other means have tended to fail or produce mixed results.

Secondly, PPPs work with heavy government involvement, a statement that weighted a standard deviation of 0.36. This implies that the public sector must be involved in monitoring and evaluation, setting the standards and regulations for the housing development and in some cases providing partial financing and guarantees. Thirdly, they noted that there was need for formulating adequate laws and institutions, a statement that recorded a standard deviation of 0.37. Fourthly, the government must offer incentives alongside the creation of an enabling environment for optimal private sector performance, a statement which recorded a standard deviation of 0.39. Fifth, there is need to simplify the procedures for the application of PPPs and also the need to develop standard designs, procurement and financing guidelines. This recorded a standard deviation of 0.40. The sixth and last in ranking was that there was need for formulating and applying suitable models of PPPs in the local context. This statement recorded a standard deviation of 0.62, which was ranked as being mildly important in the analysis.

The ranking shows that housing developers highly rated five suggestions: 1. PPPs is one of the sure ways of meeting the huge housing demand in the country; 2. There is always need for heavy

government involvement for the process to succeed; 3. Enacting adequate laws, regulations with requisite institutions; 4. incentivize the private players to be attracted in down-market urban housing; 5. Simplify the procedures and set up standards, manuals and designs, as presented in Table 42

Table 42: Suggestions on the applicability of PPPs by Housing Developers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	PPP plausible way of meeting housing demand	1.25	0.35	1	Highly important
2.	Need for heavy government investment	1.21	0.36	2	Highly important
3.	Enacting adequate laws & setting adequate institutions	1.14	0.37	3	Highly important
4.	Incentivize & create enabling environment	1.11	0.39	4	Highly important
5.	Simplify procedures & develop standards designs, models	1.07	0.40	5	Highly important
6.	Formulate & apply suitable local models of PPPs	1.71	0.62	6	Moderately important

Source: Author (2020).

Housing Practitioners agreed with the housing financiers. They noted first that the public sector must incentivize the private sector and create an enabling environment for their optimal operations. This statement recorded a standard deviation of 0.35. Secondly, there is need to enact adequate laws and setting up requisite institutions to handle PPPs, a statement that weighted a standard deviation of 0.36. Thirdly, there was need to simplify the PPP procedures and at the same time develop manuals for the procurement, finance and financing models. This recorded a standard deviation of 0.36. The need to simplify the procedures has made the government of Kenya to develop the draft County PPP regulations and the National PPP regulations 2015. These guidelines will guide the practitioners and other users of PPPs going forward. The government has also come up with a PPP disclosure portal where the stakeholders have access to the key laws and procedures for conducting PPPs in the country.

Fourthly, the government must be heavily involved in the PPP process in one way or the other for it to succeed. This received a standard deviation mark of 0.37. The Kenyan government has set up a PPP unit based at the Treasury which is responsible for guidance and technical advice so

that contracting agencies follow the laid down laws. The unit also ensures that contracts under PPP are within the debt ceilings for the country. Fifth, PPP is recognized as one way through which the housing deficit can be met. This statement recorded a standard deviation of 0.38. This implies that other ways can be pursued for housing development. Sixth, there is need to formulate and apply PPP models among the available ones which fit the local situation. This statement recorded a standard deviation of 0.39.

The rankings show that the housing practitioners ranked all the six suggestions as being important: 1. Incentivize the private sector and create an enabling environment; 2. Enacting adequate laws and regulations; 3. Simplify the procedures and set up institutions; 4. Heavy government investment needed; 5. PPPs is a sure way of meeting the huge housing demand; 6. Formulate and apply locally suited models as illustrated in table 43.

Table 43: Suggestions on the applicability of PPPs by Housing practitioners

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Incentivize & create enabling environment	1.23	0.35	1	Highly Important
2.	Enacting adequate laws & setting adequate institutions	1.20	0.36	2	Highly Important
3.	Simplify procedures, standards designs, models	1.30	0.36	2	Highly Important
4.	Need for heavy government investment	1.17	0.37	4	Highly Important
5.	PPP is one way of meeting demanded housing units	1.13	0.38	5	Highly Important
6.	Formulate & apply suitable local models of PPPs	1.10	0.39	6	Highly Important

Source: Author (2020).

When the panellists were combined and weighted, it was found out that six major suggestions and way forward on the application of PPPs for down-market urban housing was highlighted. The first suggestion was the fact that PPPs is one of the ways of meeting the housing demand in the country. This statement received a combined standard deviation of 0.18. This makes the application of PPPs in the construction and development of down-market urban housing a big opportunity for the country going forward, through aligning the interests of the public and private players as required.

Secondly, there is need to simplify the PPP procedures and processes while developing standard housing typologies and designs, coming up with adequate PPP financing models, standards, guidelines and manuals for the application of the concept. This statement received a standard deviation of 0.31. This provides an opportunity for institutions of higher learning in developing the manuals and the public sector in implementing the same. Through such manuals and information, the private entities will finally get an opportunity to construct and develop down-market urban housing.

Thirdly, it was pointed out the need for heavy government investment in the development of PPPs for down-market urban housing. This received a standard deviation of 0.35. This can be done through laws, regulations, setting up institutions, construction of social and physical trunk infrastructure, provision of various guarantees and setting up a housing fund. This will finance down-market urban housing, act as an off-taker and aggregator of the demand and supply sides of the down-market urban housing. The public sector will need to plan and budget for some part financing. This should be done alongside the need for governments to determine if such ventures through PPPs have inbuilt value for money, affordability and long term fiscal affordability to the public sector. The government must ensure that the intended beneficiaries are reached by the programme, a role which cannot be adequately performed by the private sector without public sector control.

Fourth, it was pointed out that there is need for the enactment of adequate laws, regulations and setting up institutions. This recorded a standard deviation of 0.35. This will create room for innovative project design and setting up of the housing fund as envisaged under item 3 above. It will eliminate inhibiting laws and constraints which are legal in nature, while establishing institutions which can fast track the development of down-market urban housing in Kenya. The Act should define the eligible projects, procurement methods and procedures, roles of various players and policy support measures by the government. It details the procedures to be followed during project implementation, applicable regulations for project financing and refinancing and applicable risk management mechanisms. The need for laws and regulations on PPPs is important in that it makes it possible for the development of complex and long term projects like down-market urban housing. Laws reduce the transaction costs due to the inbuilt procedures and

certainties, it ensures the regulatory controls are in place and provides legal and economic mechanisms for resolving disputes and conflicts which might arise.

Fifth, it was noted that there is need to come up with down-market urban housing PPP models that can work locally. This recorded a standard deviation of 0.38. There are many models that can be used according to the local economic and political contexts. He noted that because PPPs are placed between traditional procurement method and privatization, the concept can be activated in many models including: informal cooperation like Saccos in Kenya; concessions (public law cooperation's); long term renting, leasing, supply and delivery mode of contracts (civil law cooperation's); partial privatization or joint project ventures and societies. There is need to utilize the Saccos method of delivering down-market urban housing in Kenya. Through this method, the government can provide social and physical infrastructure to organized Saccos and accelerating the development of urban housing. The government can finance partly such housing cooperatives, provide guarantees to developers and amend the building codes to allow for the utilization of local building materials in the construction of down-market urban housing.

Sixth, the panellists noted that there was need for the government to incentivize the private entities to attract them to the construction of down-market urban housing. This statement recorded a standard deviation of 0.68. This arises from the fact that some of the proposed incentives are not difficult for governments to achieve or some are more of an administrative process than anticipated. The envisaged incentives may include ease of payment of the legal fees and acquisition of developable land, installation of trunk off-site and on-site infrastructure, provision of financial support to the various organized groups and developers. This study notes that incentives should be structured in such a way that they address financial, legal, construction and materials, which are a great issue in the construction of down-market urban housing. The incentives should include creating an enabling environment in terms of financial, capacity, political, legal and regulatory environments and hence providing more opportunities for the economy in the construction of down-market urban housing.

The ranking by the combined panels shows that they highly rated five suggestions: 1. PPPs is one of the best ways of meeting the housing demand; 2. Simplify the PPP procedures; 3. There is need for heavy government investment in the process; 4. Enact adequate laws and institutions; 5. Formulate local workable and bankable PPP models, as shown in table 44.

Table 44: Suggestions on the application of PPPs by the combined panels

S/No	Item	Mean	Standard Deviation	Rank	Remarks
1.	PPPs plausible way of meeting housing demand	0.41	0.18	1	Highly Important
2.	Simplify PPP procedures & processes, models	1.38	0.31	2	Highly Important
3.	Heavy government investment is key	1.26	0.35	3	Highly Important
4.	Enacting adequate laws & institutions	1.23	0.35	3	Highly Important
5.	Formulate workable local PPP models	1.13	0.38	5	Highly Important
6.	Incentivize private sector , enabling environment	2.00	0.68	6	Moderately Important

Source: Author (2020).

ii. The second objective was to determine challenges facing the application of PPPs in down-market urban housing in Kenya

The panellists were asked to rank the various challenges which in their opinions would affect the application of PPPs in down-market urban housing. Six major challenges that have an impact on the success of PPPs were highlighted. The Housing financiers ranked them as follows: First, there were inadequate knowledge, awareness, sensitization and capacity in PPPs in Kenya on the applicability of PPPs. This statement recorded a standard deviation of 0.31. Secondly, there were inadequate laws, regulations, structures and there was also an improper environment for the application of PPPs in down-market urban housing in Kenya. This statement weighted a standard deviation of 0.47. Thirdly, the long period which it takes for PPP project to be concluded, which has a bearing on the time the investor takes before recouping their investment and hence hampering faster return on investments. This statement recorded a standard deviation of 0.50.

Fourth, there are instances of political interference, corruption and low resource mobilization towards down-market urban housing. This statement recorded a standard deviation of 0.55. Fifth, the nation did not have a common goal and vision on housing low-income urban households. The country has conflicting goals between parties and government agencies and a lack of champions to rally behind housing PPPs. This statement had a standard deviation of 0.63. The sixth challenge was cited as the existence of inadequate housing infrastructure in the areas earmarked for housing development. This recorded a standard deviation of 0.66.

The ranking shows that housing financiers highly rated three major challenges: 1. Inadequate knowledge, awareness and capacity at the local level to implement PPPs; 2. Inadequate laws, regulations and structures; 3. Long period taken in the structuring and implementing PPP transactions, which has a bearing on the returns on the investment made by the developers, this is as per figure 33.

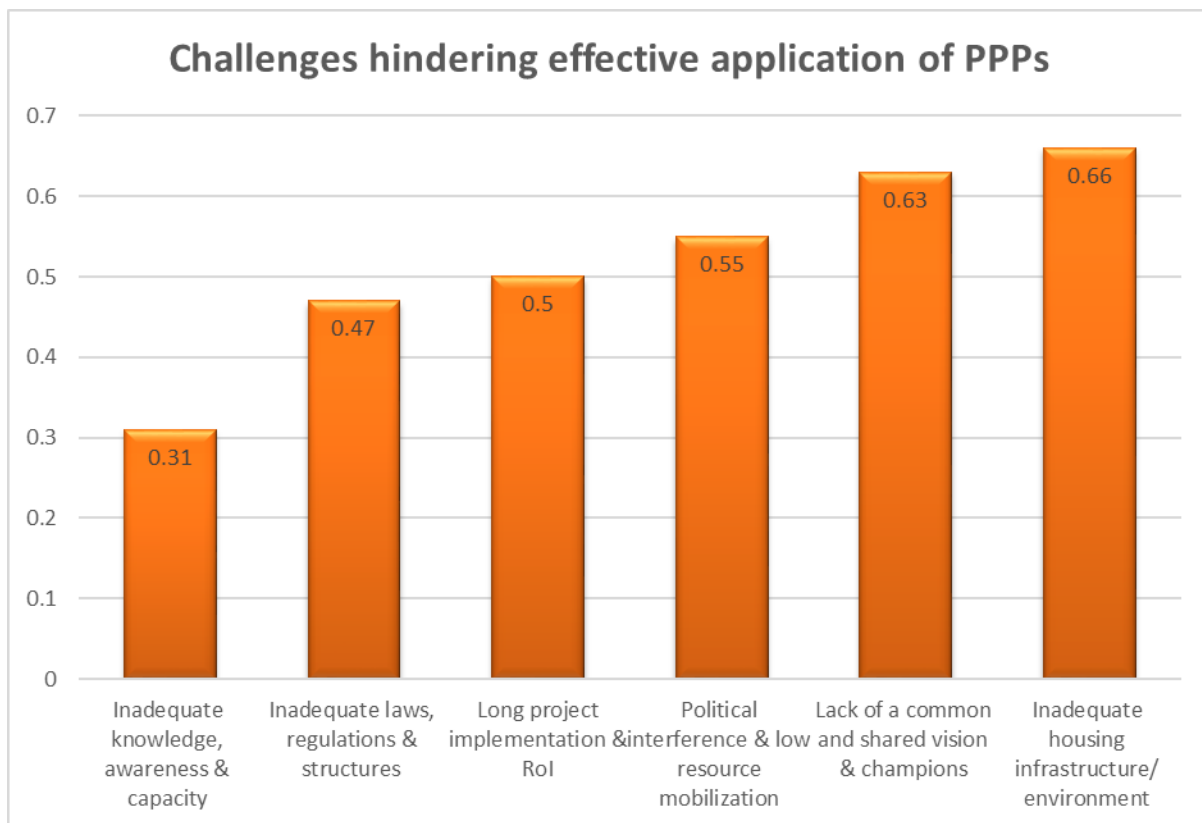


Figure 33: Challenges likely to face application of PPPs in down-market urban housing by Housing Financiers
Source: Author (2020).

The housing developers ranked the first thing as the existence of inadequate laws, regulations, structures and lack of an enabling environment for the operationalization of PPPs in down-market urban housing. This statement weighted a standard deviation of 0.24. Secondly, Political interference, corruption and low resource mobilization towards the down-market urban housing in Kenya. This statement recorded a standard deviation of 0.29. Thirdly, there was lack of a common and shared vision on how to house the urban poor. In some instances, there were conflicting goals and lack of champions on the utilization of PPPs. This statement recorded a

standard deviation of 0.32. Fourthly, there was inadequate housing infrastructure, which would contribute to the lowering of the final housing prices hence increase affordability to low-income urban households. This statement recorded a standard deviation of 0.36. Fifth, the long period taken during negotiation, project commencement and completion in a PPP project. This long duration has a bearing on the returns on investment for the developers. This statement recorded a standard deviation of 0.36.

The sixth challenge was provided as the existence of inadequate knowledge, awareness, sensitization and capacity to enter and implement PPPs in the country. This hampered adequate and structured way of applying the concept in the development process. This statement recorded a standard deviation of 0.62.

The rankings show that housing developers highly rated five challenges: 1. Inadequate laws and regulations; 2. Political interference, corruption and low resource mobilization for the down-market urban housing; 3. Lack of a common vision and champions for the sector; 4. Inadequate housing infrastructure, which increases the cost of housing development; 5. Long period it takes to develop and implement PPP projects, which has a bearing on returns on the investments made, as illustrated in figure 34.

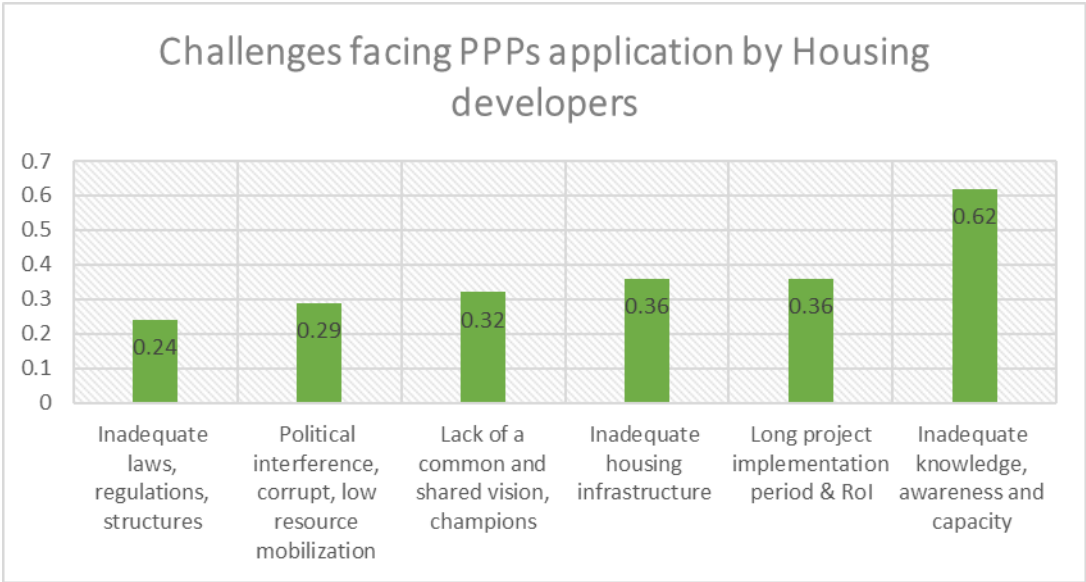


Figure 34: Challenges likely to face application of PPPs in housing development by Housing Developers

Source: Author (2020)

The Housing Practitioners arranged the challenges as follows: First, they cited the long periods taken for the maturity and hence recouping of the investments in a PPP project. They noted that this would be the most probable reason the developers they scouted for Park road and other Nairobi county projects did not show interest in the project. This statement recorded a standard deviation of 0.35. Secondly, they cited the instances of political interference in designing and implementing projects, corruption and low resource mobilization in down-market urban housing. They noted that the existing budgetary process was skewed against the urban poor and hence the allocations to such areas was always below the expected amounts to undertake meaningful interventions. This statement recorded a standard deviation of 0.39. Thirdly, they cited lack of a common and shared vision and goal of housing the low-income urban households, and lack of champions for PPPs in down-market urban housing. This recorded a standard deviation of 0.41.

The fourth challenge was cited as the inexistence of adequate housing infrastructure alongside the serviced land, where there is onsite and offsite infrastructure. This would lower the final housing unit prices and hence increase expected uptake by the low-income urban households. The need for housing infrastructure led to the creation of a unit to deal with it in the State Department for Housing and Urban development, but which has not received adequate financing. This statement recorded a standard deviation of 0.43. Fifth, they cited the inadequate laws, regulations, structures and enabling environment for the operationalization of PPPs. This received a standard deviation of 0.58. The sixth challenge was given as the inadequate knowledge, awareness and capacity to implement PPPs project in the down-market urban housing sector. It was argued that the country has recorded some achievements in the physical and hard infrastructure like roads and energy, but there was little experience and capacity for social sectors like housing. This statement recorded a standard deviation of 0.58.

The rankings show that housing practitioners highly rated four challenges: 1. The long periods taken in structuring and implementing PPPs which slows the rate of returns on the investments made; 2. Political interference, which brings about corruption and low resource mobilization for down-market urban housing; 3. Lack of a common and shared vision for housing the urban poor, which brings about conflicting approaches and visions; 4. Inadequate provision of housing infrastructure, which increases the cost of housing development, as shown in figure 35.

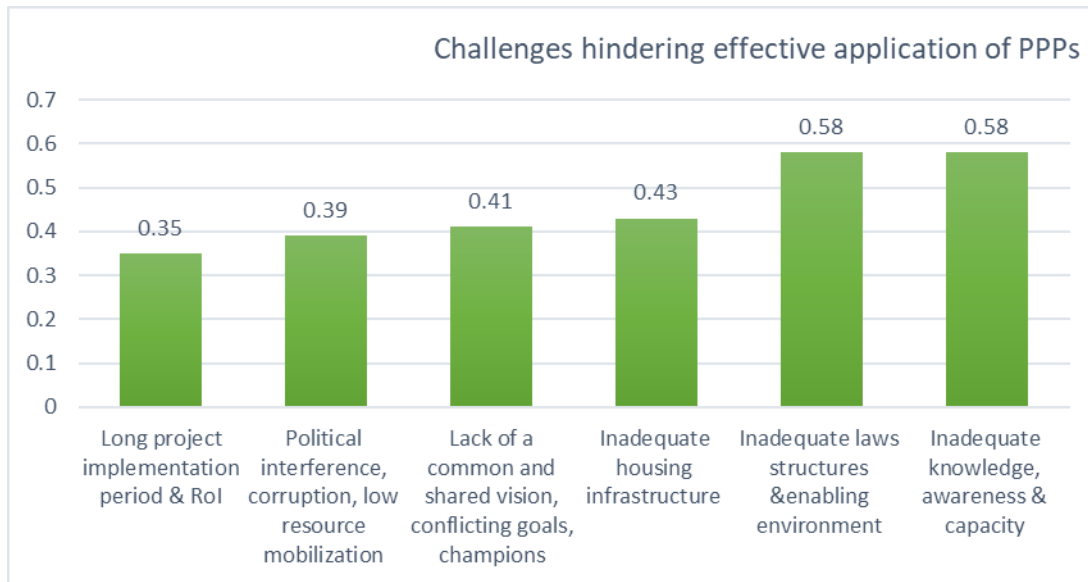


Figure 35: Challenges likely to affect application of PPPs in housing development by Housing practitioners

Source: Author (2020).

On a combined level for all the three panels, it was found that even though PPPs have been utilized for a long time in the world and in Kenya in other sectors of the economy, the concept was yet to be fully utilized in down-market urban housing. This study found out that six major challenges had hindered the application of PPPs in down-market urban housing in Kenya, as ranked by the combined panels and which must be addressed to make the concept amenable to housing, especially the low-income urban households.

The first one was the long periods which are taken to implement and deliver PPP projects before the investors can recoup their investments. This situation has a bearing on the kind of private entities that can afford such an arrangement. This recorded a standard deviation of 0.25. In developing housing units through PPPs, the investors and proponents may need long periods of negotiations, discussions and planning before the actual rollout of construction work can begin. The government on the other hand may have to undertake some market sounding, undertake stakeholder engagement, come up with the areas to be developed and make a decision on commencing the PPP works. In some cases, the developers may be required to pay for some performance guarantees and other monetary contributions that are deposited with the government for a long time before the same can be refunded to them. This has been found to have a bearing

on the cost of money and hence increasing the final housing unit price. The government may be forced then to offer more concessions and guarantees because developers are concerned about the long period it takes under PPP transactions.

The second challenge in the application of PPPs for down-market urban housing was cited as the inadequate laws, regulations and institutional frameworks and other enabling environments for the construction of down-market urban housing. This statement has a standard deviation of 0.29. The existing laws and regulations were cited as being the major hindrance and obstacle to the application of PPPs. The Kenyan PPP laws were found to be focusing more on the hard and physical infrastructure without paying attention to softer infrastructure like down-market urban housing, which requires different procurement methods and delivery processes. It was found out that the laws prescribe how the developers can recoup their money through user payments and in some cases government direct payments. The bigger focus was on the developed asset being able to generate enough revenue bases to pay for the principal investment amounts and the accruing interests. It was found out that the laws have not envisaged the peculiar characteristics of housing which may be needed by low-income urban households whose mode of repayment may be different than for the physical infrastructure like roads and energy plants. There is need to inculcate flexibility and practical mind-sets in the stakeholders for PPPs in down-market urban housing to succeed.

Thirdly, it was found out that the political interference in implementing PPPs for down-market urban housing and attendant corruption might offer a challenge in the process. This statement recorded a standard deviation of 0.30. It was found out that most panellists believed that there is a lot of political interference in most housing projects done for low-income urban households in Kenya. This according to the panellists would make the final units not to end up with the actual target groups. The political interference was also associated with low resource mobilization for the construction and development of down-market urban housing by the stakeholders, which was reflected in the national budgeting process in the country. It is within this thinking that panels were of the idea that programmes that seek to utilize PPPs for down-market urban housing might not be strongly supported. There is need for political support to create an environment that favours the enhanced role of private players in the housing development for low-income urban households. The political support for development in Kenya has partly been addressed by the

Kenya Vision 2030, through its social pillar, which dwells on value-based politics; the Government Support Measures of 2018.

Fourthly, the panellist cited the lack of a common shared vision and goal for the development of down-market urban housing through PPPs. This statement recorded a standard deviation of 0.31. Many stakeholders do not see the need and rationale for the development of such housing programmes to target low-income urban households. Such stakeholders do not realize the danger of inadequate housing standards for low-income urban households portends for the general welfare and safety of the society and the other middle and upper-middle classes in society. People who do not have adequate housing are likely to be criminals, and since they have nothing to lose in any eventuality of civil strife and chaos which are mostly manifested in the political season. It has been argued that providing such low-income urban households with decent and quality housing has the effect of making them more responsible in the overall national development discourses. It has therefore been proven that providing down-market urban housing through PPPs is a stabilizing factor. The vision for housing the urban poor lies with the Kenya Vision 2030 and other policy pronouncements by the government, including the big four agenda.

The Kenya Vision 2030 envisages a nation that is adequately and decently housed nation within a sustainable environment. The vision aims to increase the annual production of housing to increase from 35,000 to over 200,000 housing units per year. The intended housing developments and planning will also factor in slum and informal settlements upgrading and housing provision. This can only be done using the enhanced role of the private parties through PPPs.

The fifth challenge was identified as the inadequate knowledge on how PPPs operate and work in some sectors like the construction of down-market urban housing (0.37). It was found out that there is limited awareness on how PPPs are structured, how they work and how they should be applied in the construction of down-market urban housing. It was found out that there were inadequate sensitization and education on the application of PPPs in down-market urban housing, which has hindered the effective application of PPPs in down-market urban housing. Stakeholders should have the skills of negotiations, operationalizing the concept and the technical application of the concept in the development process. Once the necessary skills are provided, the concept of PPPs has the potential of meeting the intended goals and objectives. The

challenge is that in most cases, it is the private sector that possesses most of the skills on the PPPs and hence makes it gain undue advantage from the public sector. This makes the private entity in a PPP arrangement to gain more preferential agreement which advances their interests at the expense of the general public good. Inadequate experience in structuring and implementing PPPs from the government side has been blamed in the literature as one of the hindrances to the successful application of the concept.

The sixth challenge was cited as a lack of adequate serviced land with social and physical infrastructure. This recorded a standard deviation of 0.38. This makes the development and construction of down-market urban housing to become a challenge. This is because developers have to include the cost of developing off-site and on-site infrastructure in their final pricing, which places the final product away above the target groups.

The rankings show that on a combined level, the panels highly rated the six challenges: 1. There is a long period taken to structure PPPs; 2. Inadequate laws and regulations; 3. Political interference which brings about corruption and low resource mobilization to the sector; 4. Lack of a common and shared vision on housing the urban poor; 5. Inadequate knowledge on the application of the concept; 6. Lack of serviced land and housing infrastructure, as per figure 36.

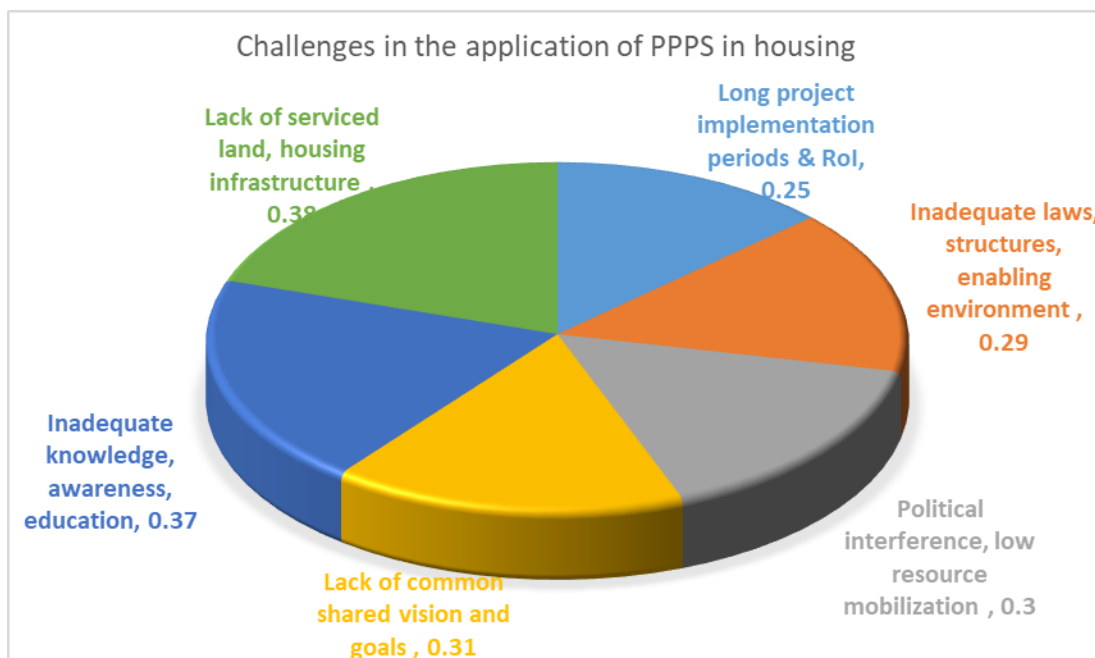


Figure 36: Combined challenges likely to face the application of PPPs in housing development

Source: Author (2020)

The panels were asked to state ways in which the identified challenges would be resolved to make PPPs applicable in the much needed down-market urban housing. They stated five major ways of addressing the challenges facing the application of PPPs in down-market urban housing. The Housing financiers ranked them as follows. First, stakeholders must undertake the structuring of PPPs models in ways that respond to the unique housing characteristics. This recorded a standard deviation of 0.34. Secondly, there is need to formulate a common vision for undertaking PPPs for down-market urban housing, a statement that recorded a standard deviation of 0.36. Thirdly, there was need to provide incentives to the developers and financiers of PPPs in down-market urban housing. This statement recorded a standard deviation of 0.43.

Fourthly, there is the need to undertake adequate development laws, regulations and institutions for PPPs application, a statement which weighted a standard deviation of 0.52. The fifth solution to the challenge as provided by the housing financiers was the need for the public sector to negotiate cheaper housing financing options. This means that the first three solutions for identified challenges were most important for housing financiers: 1. Stakeholders should structure PPP models to respond to the unique housing supply issues; 2. the country should formulate common vision and goals for supporting the development of low-income urban housing; 3. The public sector should provide incentives and an enabling environment for housing development through PPPs.

The Housing Developers ranked the solutions for the challenges likely to affect PPPs in down-market urban housing in Kenya as follows: The first solution was the formulation of a common vision, goals and objectives for the application of PPPs in addressing the huge backlogs in housing supply. This recorded a standard deviation of 0.32. The formulation of common vision and goals is important as it makes the stakeholders have a clear picture of what the intentions of the government are in the down-market urban housing. It enhances public participation in the development process, which is critical in buy-ins and hence support throughout the project cycle.

Secondly was structuring PPPs in ways that respond to the unique housing characteristics, a statement which recorded a standard deviation of 0.34. Thirdly was undertaking adequate development laws formulation which would create an enabling environment for PPPs in the housing sector, a statement that weighted a standard deviation of 0.39. The fourth was

undertaking negotiations for cheaper housing finance options, which would be possible in the Kenyan environment, where the private sector has been growing and expanding rapidly. This statement recorded a standard deviation of 0.42. The fifth solution was the need for government and other agencies to provide adequate and well-structured incentives to developers, with a standard deviation of 0.43, and which further shows that all the five solutions proposed by the Housing Developers were ranked highly important: 1. Formulation of common vision and goals for housing the urban poor; 2. Structuring PPPs in ways that address unique housing development needs; 3. Undertaking adequate laws and regulations to support housing development through PPPs; 4. Undertaking and implementing cheaper housing development financing options; 5. The public sector should develop well-structured incentives and subsidy programme for the low-income urban housing

The Housing practitioners noted that the first thing was the provision of incentives to the developers and financiers to offset the unprofitability of the target group. This recorded a standard deviation of 0.35. The second solution was the need for the formulation of adequate laws and regulations, a statement which recorded a standard deviation of 0.37. Thirdly was the need for negotiation for cheaper housing financing options, which recorded a standard deviation of 0.39. The fourth was the need to structure PPPs in ways that respond to unique housing characteristics and make the sector attractive to a variety of stakeholders. This statement recorded a standard deviation of 0.43. The fifth solution was the need for the formulation of a common vision, goals and objectives in housing the urban poor, which will necessitate adequate attention by all parties. This statement recorded a standard deviation of 0.45.

On a combined note, the panellist noted that these challenges were not difficult to address to make PPPs applicable in down-market urban housing. They identified five ways through which the identified challenges would be addressed.

First, they noted that PPPs in down-market urban housing should be structured in a way that responds to the unique characteristics of the housing process. This statement had a standard deviation of 0.32. The unique housing characteristics include: the short term construction period for housing; commodification of housing; high interest rates as developers seek loans and other financings for the development of down-market urban housing. It includes issues of access and costs of land; the low purchasing power of low-income urban households hence some prices of

housing might exclude them from accessing such units. The government should boost and incentivize both the developers and consumers of down-market urban housing through PPPs. The government should do this by ensuring the efficient functioning of the demand and supply sides of the economy. These measures, among them application of PPPs, will ensure adequate supply to affordable and quality housing in the country, which is a growing and recurrent problem in Kenya.

Secondly, the government should undertake adequate sensitization, awareness creation, formulate workable and common goals and vision for housing the low-income urban households in Kenya. This statement recorded a standard deviation of 0.33. The government should sell the idea and rationale of housing the urban poor on the understanding that such efforts go a long way in reducing crime and acts of violence in the country. The provision of down-market urban housing makes such urban households economically productive and hence contribute to the overall development of the country. The government should build consensus on the need for housing the urban poor, which has the effect of availing more resources and expertise in the sector. The government should partner with Technical and Vocational Training Institutes (TIVETs) and other institutions of higher learning to rollout the curricula on PPPs and its justification in national development discourse.

Thirdly, the government should negotiate for cheaper and long term financing strategies with local and international developers and financing institutions to develop down-market urban housing through PPPs. This statement recorded a standard deviation of 0.37. The government can use the Saccos resource mobilization skills to rope in many urban households into savings and credit cooperative societies, which has the effect of housing a large number of households. These methods of pooling resources constitute equity finance methods. The government can come up with structures that allow low-income urban households to use their labour as sweat equity in the construction of down-market urban housing. Different approaches and methodologies of financing, PPP models and delivery methods should be encouraged without necessarily using only conventional PPPs models.

Fourthly, the government should provide targeted incentives through serviced land with social and physical infrastructure. This recorded a standard deviation of 0.37. The government can

provide targeted guarantees, subsidies and develop such affordable housing units near the places of work or where residents can have access to modern mass transit systems.

Fifth, the stakeholders led by the government should come up with and formulate adequate down-market urban housing laws and regulations. They should amend others which exist to make PPPs applicable in down-market urban housing. This should be done to suit the PPP models in the construction of down-market urban housing for national and county governments.

The combined panels' solutions to the challenges presented show that they highly rated the five solutions: 1. Structure PPPs to respond to the unique housing characteristics; 2. Undertake sensitizations and formulate common goals on housing the urban poor; 3. Negotiate for cheaper housing financing options; 4. Provide incentives to the developers; 5. Formulate adequate laws and regulations alongside institutions, as illustrated in figure 37.

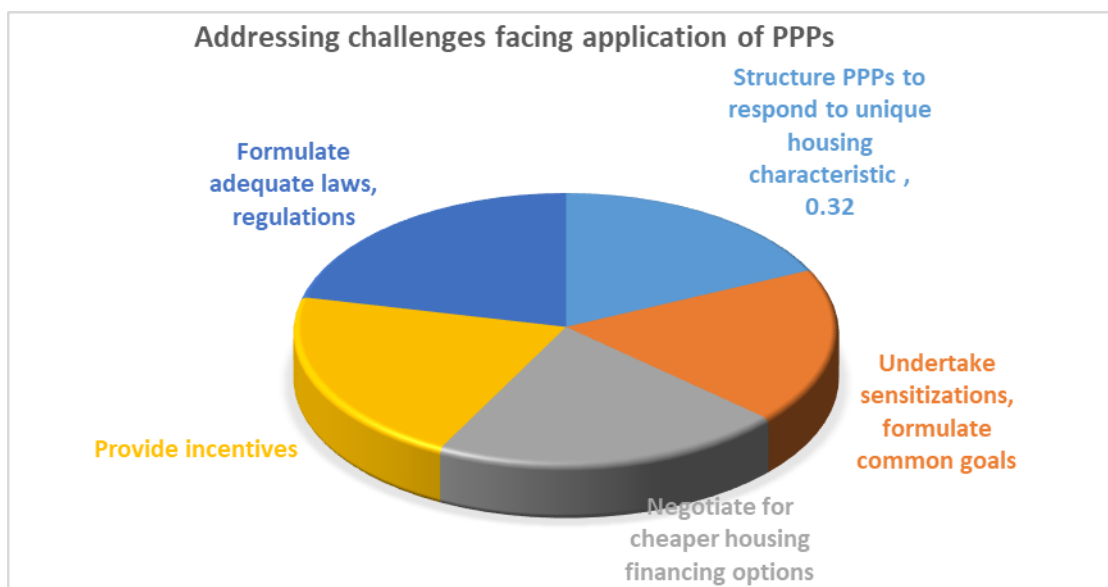


Figure 37: Combined solutions to challenges facing the application of PPPs in down-market urban housing

Source: Author (2020).

The panellists also delved into the reasons as to why the private sector has not fully participated before in down-market urban housing in Kenya. The Housing financiers noted that first, it has to do with the inadequate incentive structures, the way PPPs are structured and the challenges of the commodification of housing. This statement recorded a standard deviation of 0.33. Secondly, it has to do with the inadequate awareness, lack of clarity on the application of

the concept, lack of a common vision and institutions which are to oversee PPPs, may have some limitations. This statement recorded a standard deviation of 0.35. Three has to do with the inadequate financing models which are complicated by cumbersome rules in the formation of special purpose vehicles for PPPs in Kenya. Further, the challenge comes due to the high-risk nature of down-market urban housing projects. This statement recorded a standard deviation of 0.36. The fourth reason was the long periods taken before a PPP project can commence due to the need for robust preparation and scheduling of tasks. This long period has a bearing on time for recouping the benefits. This statement recorded a standard deviation of 0.76.

The rankings show that housing financiers highly rated three reasons why private entities have not fully participated in PPP transactions: 1. Inadequate incentives, structures and commodification; 2. Inadequate awareness, clarity on the laws and institutors; 3. Inadequate financing models, as illustrated in figure 38.

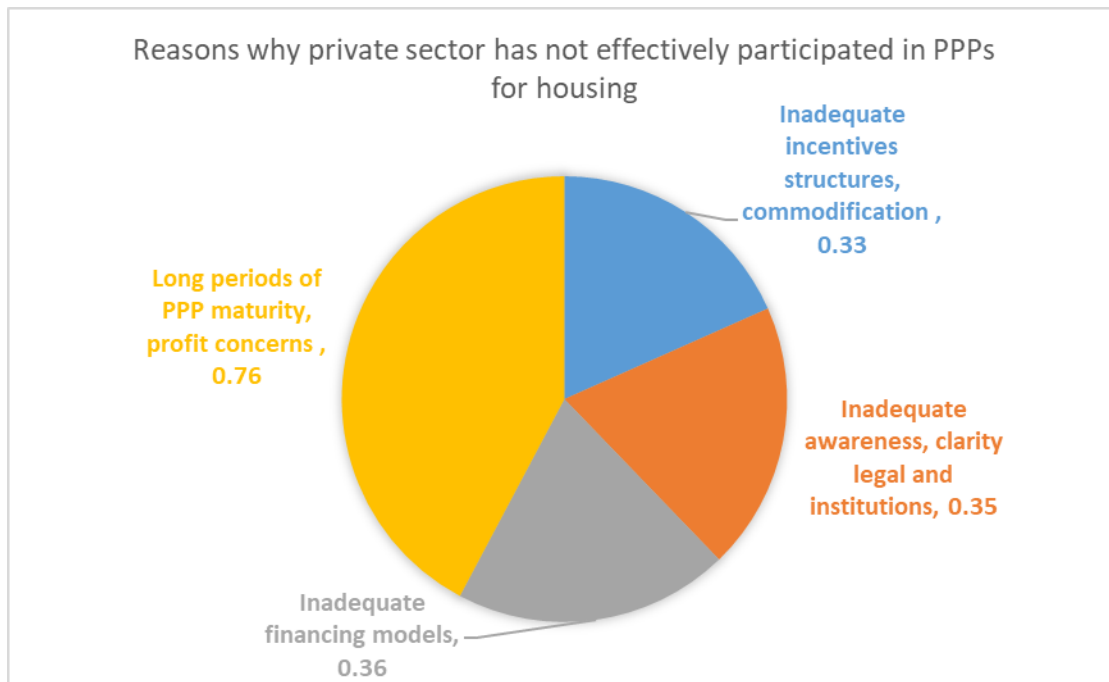


Figure 38: Reasons why private parties have not effectively participated in PPPs by housing financiers

Source: Author (2020).

The Housing Developers started with the inadequate financing models as the first hindrance, which also includes cumbersome SPV’s formation rules and laws and the highly risky nature of low-cost housing development. This statement recorded a standard deviation mark of 0.36.

Secondly, there are inadequate incentive structures, high commodification challenges and the final structure of a PPP project should be done. This statement recorded a standard deviation of 0.59. Thirdly, there are inadequate awareness, clarity on the application of the concept in the national development, and absence of a common goal for PPPs. This challenge is worsened by the inadequate institutional capacity for PPPs. This statement recorded a standard deviation of 0.62. Fourthly, the long periods taken for PPPs projects to commence, recoup investments and hence make the services and goods available is a reason the private sector shied away from such transactions. This statement recorded a standard deviation of 0.65.

The rankings show that housing developers ranked the inadequate financing models for PPPs in down-market urban housing as the only challenge which made private entities shy away from PPP transactions as illustrated in figure 39.

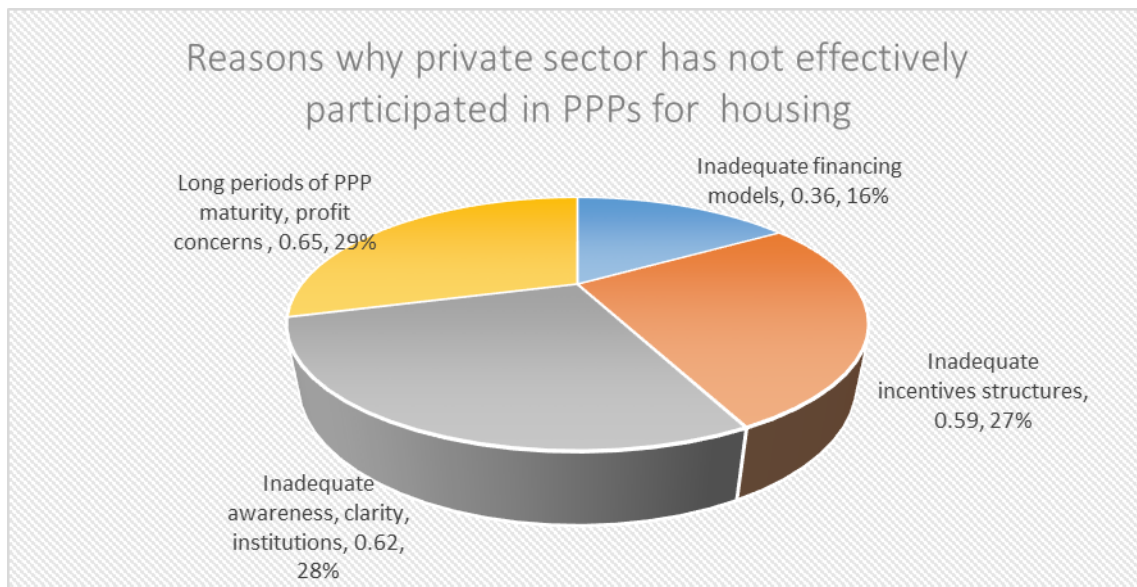


Figure 39: Reasons why private entities have not effectively participated in PPPs by housing developers

Source: Author (2020).

The Housing practitioners agreed with the housing developers by noting that: First, there are inadequate financing models for PPPs in down-market urban housing, cumbersome procedures in the registration of SPV's. This is also compounded by the highly risky nature of low-income urban housing programmes in Kenya. This statement recorded a standard deviation of 0.35. Secondly, is the long periods it takes for a PPP project to start, recoup investments and hence avail services to the consumers. This statement recorded a standard deviation of 0.37. Thirdly, is

the inadequate awareness levels on how PPPs work, lack of clarity on its application and lack of a common goal on the need for housing the urban poor. This is exacerbated by the fact that some legal and institutional arrangements may not favour such housing programmes. This statement recorded a standard deviation of 0.38. The fourth reason is the inadequate incentive structures, the arrangements which are made for PPPs in housing and the commodification of housing as a product. This statement recorded a standard deviation of 0.41.

The rankings show that the housing practitioners highly rated the four reasons as impediments to the private sector full participation in PPPs. 1. Inadequate financing models; 2. Long periods it takes to develop and recoup investments alongside the profit concerns; 3. Inadequate awareness, clarity on applicable laws and institutions; 4. Inadequate incentive structures, as illustrated in figure 40.

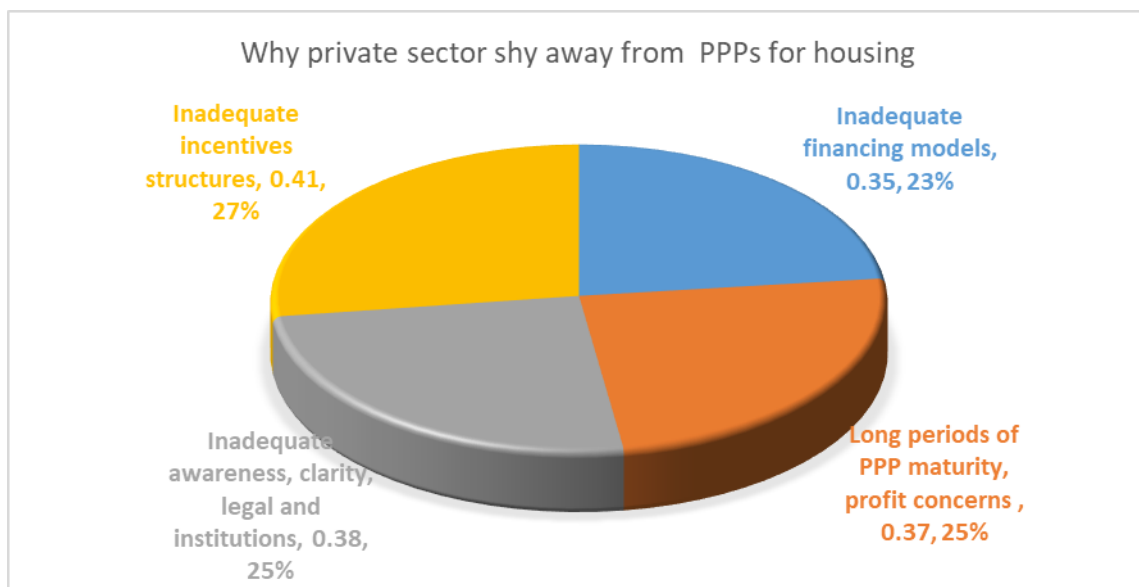


Figure 40: Reasons why private sectors have not effectively participated in PPPs for housing development by Housing practitioners

Source: Author (2020).

The combined panellists provided four reasons they thought hindered private sector participation in the application of PPPs for down-market urban housing. They noted that if these reasons were addressed, PPPs would be applicable for housing the urban poor going forward.

First, most developers cited the long periods taken for the investors to recoup their investments, profit maximization concerns, corruption, political interference, uncertainties for the investors

and the fact that the government was not very clear on the applicability of PPPs. This statement recorded a standard deviation of 0.28. It was noted that if the government came out strongly and engaged more private developers on matters PPPs and down-market urban housing, more players would be willing to come on board. Strong government commitment will eliminate corruption, uncertainties and more so it will assure developers that they will recoup their investments and make profits in the process. Secondly, the developers have cited the inadequate incentive structures and lack of proper commodification of housing as a product, social good and something which must be traded and which also must be accessed by the urban poor. This statement weighted a standard deviation of 0.30. There have been incidences of inadequate structuring of PPPs, which would address the incentives and commodification challenges to make housing be developable through down-market urban housing PPPs.

Thirdly, private developers have cited inadequate financing structures and unaffordable financing models as a major reason why they are not attracted to PPPs. This statement weighted a standard deviation mark of 0.38. They cited the fact that it takes a long process to incorporate an SPV company which is the actual corporation that runs the affairs of the venture. The SPV finally develops down-market urban housing projects through an elaborate relationship structure. Developers have also cited the risky nature of low-income urban households as regards their ability to purchase and acquire the housing units once they are developed. They have therefore proposed that governments must provide more incentives and guarantees to cushion them against the low purchasing power, the fluidity of low-cost housing and the challenges of getting the developed units occupied.

Fourthly, it has been found out that there has been inadequate sensitization, awareness creation, limited information spreading on the application of PPPs. This statement recorded a standard deviation mark of 0.63. There has also been a lack of common goals, objectives and national vision on providing down-market urban housing, which if provided can contribute to a society that is more development-oriented and hence productive at the end of it.

The combined ranking shows that the panels highly ranked all the reasons why private players have not fully participated in PPPs for down-market urban housing: 1. Long periods it takes to develop and recoup investments and profits; 2. Inadequate incentive structures; 3. Inadequate

financing structures; 4. Inadequate sensitization, awareness creation and lack of a common vision for housing the urban poor, as illustrated in figure 41.

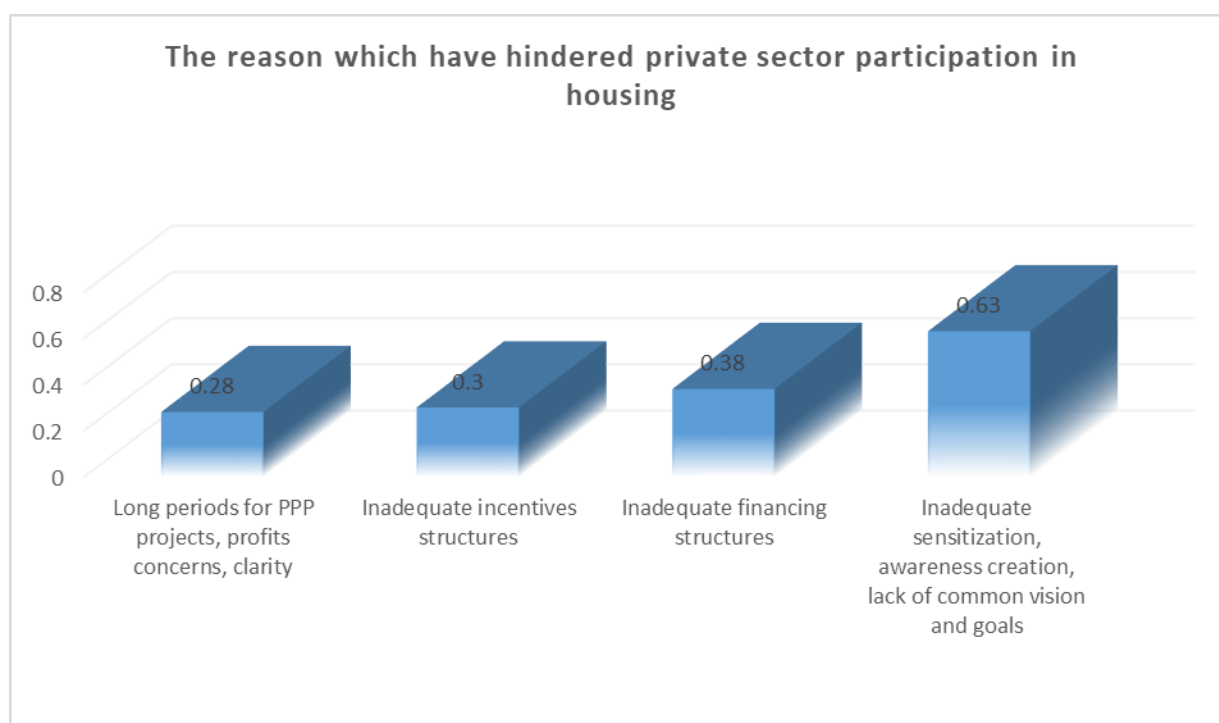


Figure 41: Combined reasons why private entities have not effectively participated in PPPs for housing

Source: Author (2020).

On further combined levels for the panels, it was found out that the reasons as to why the private entities did not participate in PPPs for down-market urban housing mirrored what constituted the constraints facing their participation in PPPs. The panellists provided five constraints that face the developers as they seek to come into the application of PPPs in down-market urban development.

The first constraint was cited as the many risk factors which are not properly addressed in the housing transactions, and which have a high chance of occurring and causing lots of financial loss to the developers. This statement was weighted at a standard deviation of 0.29. The construction of down-market urban housing is faced with financing challenges as a result of high risks in the process of developing such housing. There could be design, finance, construction, delivery, technology and force majeure risks as developers put up such down-market urban housing through PPPs. Corruption and high inflation rates of the currencies used in financing

down-market urban housing were cited as other risks that impact developers in the process of developing down-market urban housing.

The second constraint was cited as inadequate knowledge and information on the applicability of PPPs in down-market urban housing. This statement recorded a standard deviation of 0.29. Some developers have taken PPPs as being only suitable for hard and physical infrastructure while others have opined that such models cannot work in down-market urban housing. There is inadequate data on how PPPs can work in down-market urban housing, the applicability of the model and the various models which can be utilized in developing housing. The inadequate data on PPPs has had the effect of reducing its applicability as the people supposed to utilize it do not understand how the concept works. Further, it was found out that the technologies which should be applied in developing and utilizing PPPs in down-market urban housing. It was noted that the application of PPPs faces knowledge gaps arising from ambiguity in its application and meaning; equivocality, the existing frames of mind on the concept and the factors of trust between the government and the private sector.

The third constraint was linked to the fact that there are inadequate incentive structures for the financing, construction and development of down-market urban housing in Kenya. This recorded a standard deviation of 0.35. There were found to be inadequate social and physical infrastructure which would go a long way in reducing the costs of putting up down-market urban housing. Developers have to factor in the costs of such infrastructure in the development of down-market urban housing, which is transferred to the final consumer of the housing units. They identified four major incentives for PPPs to include: financial, operational, legal and intangible incentives – which could include the way the communication process is structured, collaborative efforts and reduction in political interferences in the housing development process.

The fourth constraint was found to be a long and tedious approval process, bureaucracy, affordability concerns of the target groups. This was weighted at a standard deviation of 0.57. This was coupled with the weak enforcement mechanism for the various planning and zoning regulations which has an impact on the available land for housing development. It was found out that reducing the approval process of either acquiring or getting possession of land to be developed has a bearing on the final housing units' prices, which has the effect of increasing affordability to the target group.

The fifth constraint was cited as the pricing of the final housing product against the income levels, purchasing power of the target groups and the high poverty levels of the target group. This statement recorded a standard deviation of 0.66. Housing has had the duo distinction of being a social and capital good hence the commodification of it has a benefit to developers but poses a challenge to consumers. The rankings show that the panels highly rated three major constraints to the effective application of PPPs in down-market urban housing in Kenya: 1. There are many risk factors inherent in the housing sector developments. Developers have the fear that low-income urban households may not be able to afford the units or the process might be politicized; 2. There is a knowledge and information gap alongside inadequate data on how PPP models can be structured; 3. There has been inadequate application of incentives or in some cases misapplication of the same, as shown in table 45.

Table 45: Constraints facing the private sector in the application of PPPs by combined panels

S/no	Item	Mean	Standard Deviation	Rank	Remarks
1.	Risk factors in housing	1.52	0.29	1	Highly Important
2.	Knowledge & information gap, inadequate data	1.45	0.29	1	Highly Important
3.	Inadequate incentives	1.23	0.35	3	Highly Important
4.	Long processes, bureaucracy, affordability concerns	1.91	0.57	4	Moderately important
5.	The pricing of housing against income levels	1.76	0.66	5	Moderately important

Source: Author (2020).

The different panels provided five major ways of addressing the constraints as listed above.

The Housing financiers noted that: First, there is need to undertake sensitization and awareness creation on how PPPs work and can be applied in housing development. This recorded a standard deviation of 0.35. Secondly, there is need to come up with long term financing options for PPPs in housing like pension funds, sovereign wealth funds and scouting for international financing options. This statement recorded a standard deviation of 0.36. Thirdly, there is need for public entities to provide land, incentives and adequate and favourable regulations for housing PPPs, a statement that recorded a standard deviation of 0.38. Fourthly, there is need to amend the existing PPP related laws and regulations to create an institutional and legal framework in the sector. This statement weighted a standard deviation of 0.39.

Fifth, there is the need to operate a non- profit or hybrid form of organization to promote the needs for down-market urban housing in Kenya. This statement recorded a standard deviation of 0.50.

The rankings show that housing financiers highly rated all the five suggested constraints: 1. There is need for sensitization and awareness creation on how PPPs work; 2. Long term financing of housing development through PPPs is required; 3. The public sector should stimulate the application of PPPs by providing public land, incentives and adequate laws and regulations; 4. There is need to amend existing laws and regulations to suit housing development; 5. Operationalization of non-profit entities for low-income urban housing is central, as illustrated in table 46.

Table 46: Ways of addressing the constraints in PPPs application by housing financiers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Sensitization & awareness creation	1.27	0.35	1	Highly Important
2.	Long term financing options	1.20	0.36	2	Highly Important
3.	Public entities provides land, incentives & regulations	1.13	0.38	3	Highly Important
4.	Amend the existing laws & regulations	1.10	0.39	4	Highly Important
5.	Operationalize non-profit organization	1.57	0.50	5	Highly Important

Source: Author (2020)

Housing Developers ranked the need for the creation and operationalization of a non-profit body for the promotion of the construction of down-market urban housing through PPPs as the first one. This statement had a standard deviation of 0.35. Secondly, they noted the need to amend the existing laws and regulations to create special institutions and legal structures for PPPs application in down-market urban housing. This recorded a standard deviation of 0.35. Thirdly, they stated the need for public entities to provide land, incentives and regulations to make laws more applicable to the sector. This statement weighted a standard deviation of 0.36. Fourth, they noted the need for long term financing of low-income urban households, utilization of pension funds, sovereign wealth funds and international financing arrangements. This recorded a standard deviation of 0.37. The fifth was the need to undertake sensitization and awareness

creation on how PPPs work and can be structured for housing delivery. This recorded a standard deviation of 0.37.

The ranking shows that housing developers highly rated four suggestions: 1. Operationalize non-profit entities for low-income urban housing developments; 2. Amend the existing legal environment to make it suitable for low-income urban housing; 3. The public sector should stimulate the provision of housing through PPPs through the provision of land, incentives and regulations; 4. The stakeholders must identify long term financing options for down-market urban housing, as shown in table 47.

Table 47: Ways of addressing constraints in PPPs application by Housing developers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Operationalize non-profit organization	1.25	0.35	1	Highly Important
2.	Amend the existing laws & regulations	1.29	0.36	2	Highly Important
3.	Public entities provide land, incentives & regulations	1.32	0.36	2	Highly Important
4.	Long term financing options	1.36	0.37	4	Highly Important
5.	Sensitization & awareness creation	2.14	0.74	5	Important

Source: Author (2020).

Housing practitioners ranked the first issue as the creation and operationalization of a non-profit body for the promotion of the construction of down-market urban housing through PPPs. This statement recorded a standard deviation of 0.35. The envisaged non-profit body for housing development through PPPs could be developed in the line of NACHU, use of Saccos and also the creation of a housing bank. Secondly was the need to amend the existing laws and regulations to create special institutions and legal structures for PPPs application in down-market urban housing. This statement recorded a standard deviation of 0.35. The third was the rationale for the public entities to provide land, incentives and regulations to make laws more applicable to the sector. This statement recorded a standard deviation of 0.36.

The fourth way of addressing the mentioned constraints was the justification to scout for long term financing of low-income urban households, utilization of pension funds, sovereign wealth funds and international financing arrangements. This statement weighted a standard deviation of 0.37. The fifth solution was the need for stakeholders to undertake sensitization and awareness

creation on how PPPs work and how they can be structured to make them lead to the increased housing supply and development for low-income urban households. This statement recorded a standard deviation of 0.37.

The rankings made show that housing practitioners highly rated all five suggestions: 1. Operationalize a non-profit organization to address the needs of down-market urban housing; 2. Amend existing laws and regulations and make them amenable to housing needs; 3. Public entities should provide land, incentives and regulations; 4. Long term financing options for PPPs in housing should be explored; 5. Sensitization and awareness creation is needed to make all stakeholders embrace the concept, as illustrated in table 48.

Table 48: Addressing constraints facing PPPs application by housing practitioners

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Operationalize non-profit organization	1.23	0.35	1	Highly Important
2.	Amend the existing laws and regulations	1.27	0.35	1	Highly Important
3.	Public entities provide land, incentives & regulations	1.30	0.36	3	Highly Important
4.	Long term financing options	1.33	0.37	4	Highly Important
5.	Sensitization & awareness creation	1.17	0.37	4	Highly Important

Source (Author 2020).

It can be seen from the panels that five major things must be done to address some of the constraints that have faced the provision of down-market urban housing through PPPs. Sensitization was cited as one of the issues to be addressed. Undertaking adequate participation, involvement and engagement of the people guarantees that they are fully sensitized on the programmes for PPPs in down-market urban housing. This will further fulfil the requirements of the many clauses of the Kenyan Constitution, 2010 like 1 (2), 10 (2), 35, 69(1) (d), 118, 174 (c) (d), 184(1) (c), 196, 201 (a) and 232 (1) (d), all of which emphasize the need for sensitization and engagement of the people in policymaking, budgeting, programmes implementation and actualization of issues like PPPs in down-market urban housing.

The need to scout and craft long term financing strategies for down-market urban housing came up. Within this thinking is the need to have sustainable housing finance for the low-income urban households in Kenya, as exemplified in the Kenya Slum Upgrading Policy (2016), which envisages the formation of Kenya Slum Upgrading, low-cost housing and infrastructure trust

fund (KENSUF), to create more financing strategies for low-income urban housing in Kenya. The country can tap into the use of debt finance, equity finance, issuance of the diaspora bonds as a result of the fast-growing Kenyans living in the diaspora, use of migrant remittances back home. It can accelerate the use of bonds and pension funds, forming companies to undertake financial intermediation like the mortgage liquidity facilities, for example, the just launched Kenya Mortgage Refinancing Company (KMRC). The housing sector PPPs can also benefit from the insurance life funds which are long term in nature and fits into the PPPs' life cycle.

The need for the public sector to provide land for down-market urban housing, alongside the application of targeted incentives and formulation of adequate regulations for supporting the application of PPPs in the sector was mentioned by the panels. This goes hand in hand with the other suggestion of addressing the constraints through amending the existing laws and regulations for housing development to be accelerated. It should undertake adequate legislation and enact policy that supports low-income urban housing. It must promote more research into the sector, it must develop and promote effective partnerships and set regulations and standards.

The other suggestion was the need to come up with a non-profit organization that would spearhead housing development in the country. This has been thought out in the lines of the National Housing Cooperative Union (NACHU), which has been at the forefront of building many houses at the community level in Kenya. NACHU has been offering the communities a chance to undertake savings mobilization towards housing development, financial management trainings, housing and resettlements loans and infrastructure and income-generating loans. These activities have a ripple effect of enhancing member's financial resources which can be applied in home construction and development. Between 2017 and 2019, the organization undertook the construction of 122 number housing units within communities in the greater Nairobi Metropolitan region through the mobilization of members' savings and contributions.

The third objective was to determine the opportunities the PPP mode of procurement offers in the development of down-market urban housing in Kenya

This section looked at the many opportunities that the PPP mode of procurement offers in the development of down-market urban housing; hence the reason as to why this research advocated for its utilization. The panellists provided two major opportunities that are likely to be activated in PPPs for down-market urban housing.

Housing Financiers noted that first opportunity is the ability to leverage the assets, capabilities and strengths of each partner in a PPP arrangement. This observation recorded a standard deviation of 0.35. The second opportunity arising from PPP transactions for down-market urban housing was the ability to access enhanced resource mobilization, technology, effectiveness and efficiency, good governance, transparency and accountability in a project. This recorded a standard deviation of 0.36.

The ranking shows that the housing financiers highly rated the two suggested opportunities inherent in the application of PPPs for down-market urban housing. 1. The partnerships enhance the ability of the parties to leverage the assets, capacities and strengths that each partner possesses in the process of delivering down-market urban housing. This means that the parties can eliminate the weaknesses resident in each other while maximizing on strengths to deliver the much needed housing; 2. The partnerships enable the application of enhanced resource mobilization skills, new and modern technologies, efficiency and good governance ethos, which have a bearing on the final housing delivery process and costs, as illustrated in table 49.

Table 49: Opportunities of the application of PPPs by Housing financiers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Leveraging the assets, capacities and strengths of partners	1.23	0.35	1	Highly important
2.	Enhanced resource mobilization, technology, effectiveness and good governance	1.30	0.36	2	Highly important

Source: Author (2020).

The Housing Developers agreed with the Housing financiers and ranked the first opportunity as the ability to leverage the assets, capabilities and strengths of each partner in a PPP arrangement. This statement recorded a standard deviation of 0.40. Secondly, the PPP model offers the opportunity of enhanced resource mobilization, technology, effectiveness and efficiency, good governance, transparency and accountability in a project. This recorded a standard deviation of 0.75. This ranking differed from the housing financiers, probably an indication that the ability to leverage financing was not an important factor for developers.

The rankings show that the housing developers agreed with housing financiers in the order of the rating of the suggested benefits: 1. The application of PPPs leads to the leveraging of the assets, capacities and strengths that parties to the contract have. Public entities in Kenya for example

have a lot of land that has not been fully utilized for infrastructural development, and which can be leveraged upon by private players to develop down-market urban housing; 2. The partnerships enhance the resource mobilization skills, application of technologies, effectiveness and good governance ethos. This is important because low-income urban housing has not been allocated the necessary resources for a long time in Kenya, as shown in table 50.

Table 50: Opportunities for PPPs application by Housing developers

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Leveraging the assets, capacities & strengths of partners	1.07	0.40	1	Highly important
2.	Enhanced resource mobilization, technology, effectiveness & good governance	1.86	0.75	2	Important

Source: Author (2020).

The Housing practitioners slightly differed with the other panels. They noted that the first opportunity is the enhanced resource mobilization, access to modern technology, ability to implement a project effectively and efficiently and also the inputting of good governance in a PPP project. This statement recorded a standard deviation of 0.35. The second in ranking according to the housing practitioners was the ability to leverage the assets owned by more significantly the public sector, capabilities and strengths of each partner in a PPP arrangement. This statement was weighted at a standard deviation of 0.64.

The rankings show that the housing practitioners highly rated the fact that there is enhanced resource mobilization, technology, effectiveness and good governance aspects in the process of developing down-market urban housing through PPPs, as shown in table 51.

Table 51: Opportunities for application of PPPs by Housing Practitioners

No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Enhanced resource mobilization, technology, effectiveness and good governance	1.23	0.35	1	Highly important
2.	Leveraging the assets, capacities and strengths of partners	1.73	0.64	2	Mild important

Source: Author (2020).

It was found out that two major opportunities accrue to the public and private entities whenever they apply PPPs for down-market urban housing. The first one applies to the public and private entities in that under PPPs, the public sector can have greater access to finance, capital and

higher resource mobilization and access than the traditional process. The private sector has a wide range of sources for capital including raising debts and loans from local and international organizations without having to go through a rigorous approval process. Developers can raise money even through the capital markets and through well advanced private companies like venture capital firms, insurance firms and private equity firms. Private developers bring technology, efficiency and effectiveness in the construction and development of down-market urban housing. Some of the technology in use in many developing countries like use of the traditional brick and mortar is redundant and has led to slower construction of down-market urban housing throughout history. Private parties can bring new and modern technologies like utilization of panels and industrial building systems, adequate project management skills and expertise which reduces the time taken to put a housing unit at the market.

Private developers can maximize on the assets and human resources possessed by the public agencies; hence bring more value for money to the government and citizens who benefit from down-market urban housing. Through PPPs, the process of developing down-market urban housing becomes more transparent, reduces corruption and hence increases more accountability in the overall project delivery matrix. The private developers are motivated by best practices in governance and accountability and as such, they introduce the same in the development of down-market urban housing.

Under PPPs for down-market urban housing, projects are delivered on time and budget hence the residents get new housing units and also the government increases its housing stock over time. The government can deliver such projects without a strain in its budget and hence it can concentrate on other core activities that might not attract private developers. In a PPP arrangement, the developers get access to business opportunities, access long term projects which guarantee them a steady source of income over a long period, create a good corporate image hence opening up more opportunities going forward from the government.

The second major opportunity is the fact that the targeted beneficiaries can leverage their labour as sweat equity. They can form cooperative and savings societies which can accumulate funds over a long period and hence make members to access such down-market urban housing as necessary. The ranking show that the panels combined highly rated the resultant enhanced resource mobilization for down-market urban housing development, alongside the introduction

of modern technology and good governance aspects in the project development, as illustrated in table 52.

Table 52: Combined opportunities that arise from the application of PPPs

S/No	Item	Mean	Standard Deviation	Rank	Remarks
1.	Enhanced resource mobilization, technology, good governance	1.1	0.38	1	Highly Important
2.	Leveraging assets, capacities & strengths of partners	1.86	0.76	2	Important

Source: Author (2020).

In summary, the PPPs concept is applicable in the development of down-market urban housing as illustrated throughout the research which evaluated applicability attributes which included: The unique challenges and factors likely to hamper the application of PPPs in down-market urban housing, which must be addressed to make it applicable; the role of the government in making PPPs applicable; frameworks for PPPs application; alongside the opportunities the PPP mode of procurement offers in the development of down-market urban housing. The study established that despite the challenges likely to face the application of PPPs in the construction of down-market urban housing, these challenges are surmountable if all the actors acted together in addressing them. The country has a success story of the application of PPP models in many sectors of the economy, which makes it easier for the application of the concept in developing low-cost housing. In this regard, stakeholders should customize success factors from other sectors into housing development.

4.4 The proposed model of operationalizing the application of PPPs in down-market urban housing in Kenya

Based on the study findings, the study has come up with an applicable model for consideration by stakeholders in developing down-market urban housing in Kenya. The model has three propositions and hence the cornerstone for the applicability of PPPs in the sector. First, the government representing the public sector and counties must come up with a vision for housing low-income urban households. This is because low-income urban households are increasing by the day as the urbanization and rural-urban migration continues unabated in the country. This has led to the growth of slums and informal settlements, which the State Department of Housing (2018) estimates to be over 500 in Kenya. As a country and a civilized nation, all stakeholders must ensure that such Kenyans live in decent, affordable, quality and accessible housing. Even

though this vision somehow appears in some government documents like Housing Policy and the Constitution of Kenya 2010, it has not been actively explored and an adequate strategy formulated, especially with a focus on the low-income urban households. The development of a common vision for housing the urban poor will lead to the formulation of clear goals for housing development for low-income urban households, and also ensure an informed communication process for the programme. The actualization of the vision to house these groups will necessitate the government to build consensus on ways that can be used for such housing development, which include PPPs.

The government should begin with developing a white paper for general discussion on the need to house such low-income urban households. Comments received from Kenyans will be crystallized into a green paper with concrete proposals for developing down-market urban housing for Kenyans through PPPs among other means. The two papers will form a coherent and actionable consensus-building efforts, which is a sure way of eliciting much needed ideas on how PPPs can be used to develop down-market urban housing. These ideas will be useful in communicating the public agenda for housing the urban poor. This study roots for more discussions and consensus-building on the applicability of PPPs in down-market urban housing. This is because it has been shown that it encompasses attributes of the Harambee movement and the idea of savings and cooperative societies, which are prevalent in Kenya.

The country should in actualizing this vision and goal for developing down-market urban housing come up with a national housing vision in the lines of the Vision 2030. This will then drive the need for the structuring of the institutions charged with housing development, housing financing and maintenance. It will also necessitate a comprehensive review of laws and regulations highlighted as impediments to the development of down-market urban housing. The grand vision will make it necessary to improve slums and informal settlements inhabited by low-income urban households. It will necessitate enhanced capacity building for Ministries, Departments and Agencies (MDA's), and counties charged with housing development. It will lead to the creation of efforts aimed at addressing inherent challenges in the application of PPPs without raising political pressure or facing resistance in cases where more resources are allocated to the sector. It will also be a selling point to various development partners, corporates and High

Net Worth Individuals alongside non-governmental organizations for a coherent response to urban housing challenges.

A grand vision and goal of housing the low-income urban households will entail adequate planning, including master planning for housing development. The government will provide housing infrastructure in such well-planned areas in the master plan. The planning will ensure that there is land banking, serviced land and approval processes are fast-tracked. The master planning will ensure that standard designs, procedures and manuals for construction of down-market urban housing can be provided by government agencies, which goes a long way in easing construction costs. It will also detail the uptake models for these houses – tenant purchase, outright sale, incremental building, mortgage among others. Master planning will attract strategic partnerships because the projects are made more bankable and precise, hence more PPPs. Successful PPPs for down-market urban housing should have key performance indicators, outcomes and defined evaluation criteria against which developers are remunerated. Application of well-designed and structured PPPs will ensure that projects are delivered on time, on budget and as per the specifications. The cost of project cost variations in projects is very high in Kenya. There are instances of projects falling short of expectations and not adhering to the specifications. These challenges experienced in projects can be cured under effective PPPs. Professionals and other stakeholders should be involved where such a master plan has been developed. Corporate social responsibility from companies can be channelled to down-market urban housing through the enactment of enabling legislation.

Secondly, the government should utilize the best practices and case studies from the international arena on the successful application of PPPs. It should customize such practices and case studies to the local situation. This should be done by using diversified PPP models, in a special purpose mix that can operate in the local situations. It should create an enabling environment through adequate laws, regulations, institutions and financing and uptake arrangements. It should also come up with a workable package of incentives with a clear application criterion; these should address all aspects of housing development and on the demand and supply sides. The incentives and enabling environment should address wider strategies for housing financing, they should have diversified financing arrangements including sovereign wealth funds, pension funds, charities and resources from the vibrant Kenyan cooperative movement. The financing should

also address the commodification challenges, the efforts at the introduction of Real Estates Investment Trusts (REITs) will go a long way in making housing a tradable good. This will encourage more investments and developers into housing and PPPs. In addition to this, the government should introduce into the market more housing bonds and innovative housing financing methods like housing credits among others.

Thirdly, the government and stakeholders must use diversified models of PPPs, which suit local situations. The most applicable for Kenya in developing down-market urban housing would be joint ventures which are suitable even between private individuals. The joint venture model is not wholly recognized as a PPP model in Kenya, but literature shows that it is indeed a PPP model. The government institutions in Kenya have a lot of land which they can use in a joint venture to develop down-market urban housing. The land contributed by the government for such projects can be taken as their equity contribution and developers can bring in financing, technology and managerial prowess to develop housing units. The government should partner with capable developers who can be able to maximize the availed land to develop housing units. Closely related to this is the land swap model as provided for in schedule II of the PPP Act, 2013. The government through the land it owns can partner with strategic developers who are allocated some land to develop housing units for low-income urban households. This should be made in such a way that they are allocated other portions of land to develop commercial housing units, which enhances their profitability and hence makes them attracted to down-market urban housing.

Under the diversified PPP models, the government can promote the ideals of the cooperative movement which has worked in Kenya for a long time. The down-market urban households can be encouraged to save through targeted incentives and fiscal reforms. Savings and domestic resource mobilization for housing development should be encouraged for the sector. The government should also consider part financing of housing development such that developers have some assurances that housing units for low-income urban households is bankable. The government should leverage the expertise, managerial prowess, technology, innovation and fiscal discipline of the private in developing down-market urban housing. It should use the strengths of the parties to the PPP contract to develop desired housing units. Such a partnership should be able to maximumly use the assets held by the public sector. It has been pointed out that many of

the public sector assets like land and resources which have been optimally used, but which can be used effectively under PPPs. Under PPPs, the government will get better governance which has been missing in the management of public projects, and which has contributed to stalled projects all over the country.

It should be noted that the three propositions must work in an enabling or moderating environment which is heavily a responsibility of the government and public sector. PPPs will work with heavy government involvement through political support, policy and legal formulation, alongside the application of incentives and subsidies. It has to ensure faster approvals for PPPs are undertaken including registration and incorporation of Special Purpose Vehicles (SPVs) for PPPs. It has to set up pace setters and champions for PPPs to make others learn and apply the same in their areas. It has to undertake specific PPP projects in various areas as these have different environments. The government must provide off-site trunk infrastructure and operationalize various PPP models including the cooperative ones to the local housing situation. It is the government which can undertake land banking, planning and awareness creation on the applicability of PPPs in down-market urban housing in Kenya, as illustrated in figure 42 below.

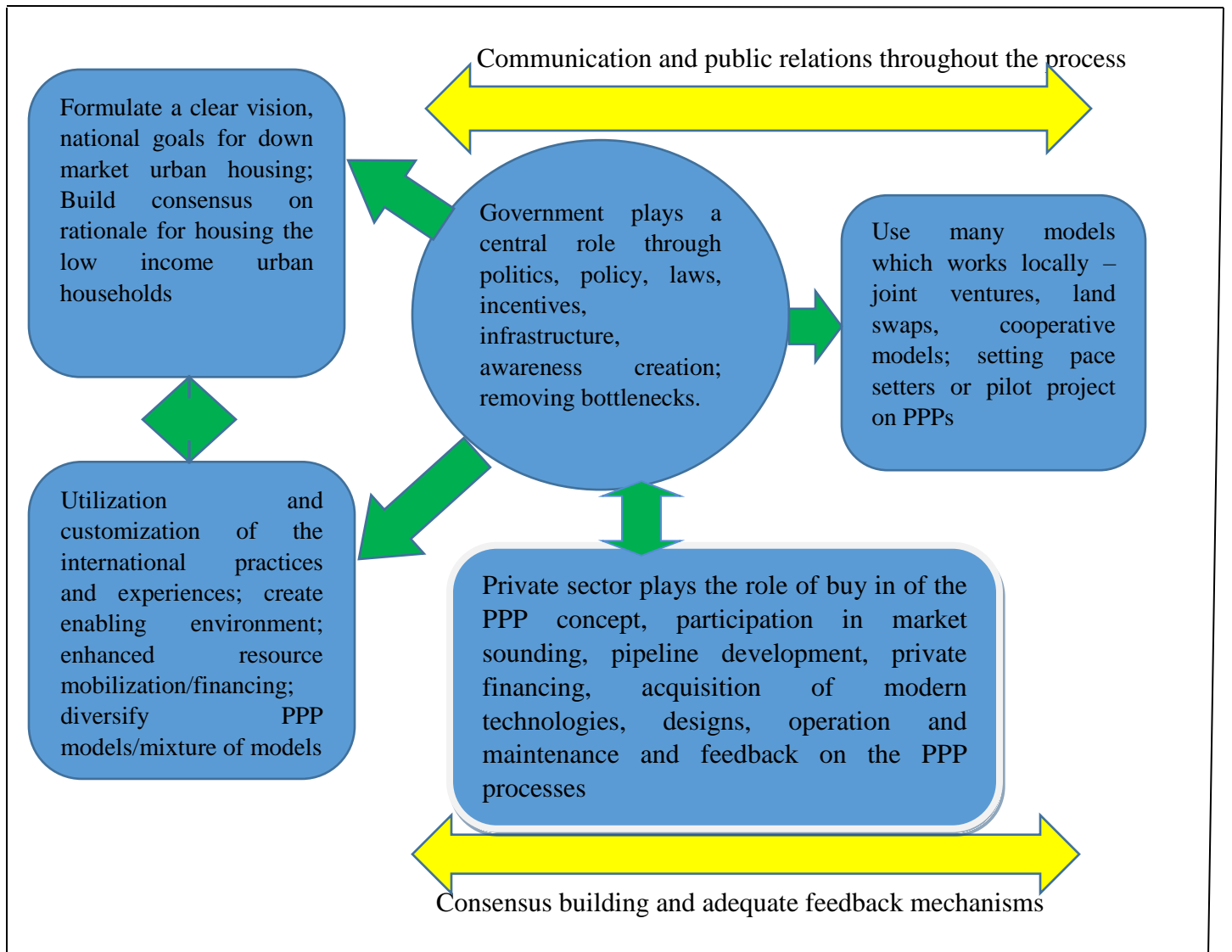


Figure 42: The proposed model for the applicability of PPPs for down-market urban housing in Kenya

Source: Author (2020)

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter presents a summary of the findings as per the three objectives of the study, conclusion, and recommendations for practice and policy and for academics. It also presents the contributions made by the study to the world of academia and practice and finally shows areas of further study.

5.1 Summary of the findings

The first objective is to evaluate the frameworks for the application of PPPs in down-market urban housing in Kenya. It has been proved that PPPs are applicable in down-market urban housing in Kenya because the country has the necessary legal, regulatory and institutional arrangements. These includes the PPP Policy 2011, which demonstrates the political and administrative commitment by the government for the application of PPPs in infrastructure development. It recognizes the huge financing burden for providing infrastructure and related services, and recognizes the role that private players can play to bridge the gap. The policy paved the way for the enactment of attendant laws and regulations, with the objective of increasing the overall private sector participation in financing various development needs. These laws have provided clear obligations for parties participating in PPP contracts and ways of addressing challenges, barriers and uncertainties which might arise in the process. In addition, it has been found out that there is need to amend some of the existing laws or enact new ones to make them suit the unique housing delivery environment and characteristics. This will address some of the concerns by developers in the PPP process like shortening the approval process, enabling environment and application of incentives.

The economic and financial developments in Kenya has created a conducive environment for the application of PPPs in the development of low income urban housing. The country has succeeded in applying the concept in many sectors of the economy including in areas like: energy, transport, water and sanitation and high income urban housing. This success in application of PPPs has been highlighted by the fact that there are currently over 76 projects lined up for development through PPP concept in Kenya. This success has been attributed to the liberalization of the economy since 1990's, which has had the effect of encouraging greater private sector participation in infrastructure and service delivery. The economic success has also

been buttressed by the prevailing political stability, which makes contracts more secure and hence lucrative for the developers. The reforms in the business environment have enabled the creation, incorporation and operationalization of consortiums, which can bid for housing project development, which reduces inherent risks. Such consortia are key in accessing innovative funding and technology for greater project outcomes.

The country has set up many institutions for operationalizing the application of PPPs, which includes the PPP Unit based at the National Treasury, which advises contracting authorities in utilization of the concept in financing projects, in addition to making recommendations for approval of projects to the PPP committee. The committee should then ensure that the proposed projects meet the socio-economic and legal requirements. Contracting entities are required to establish The PPP nodes, which are required to prepare and screen projects in line with the established legal framework, before submitting the same to PPP unit.

Structuring PPPs in such a way that the interests of parties are aligned can make the concept applicable in developing down market urban housing. This is facilitated by the existing general knowledge and awareness of the need to apply the concept to address the increasing housing supply deficits in Kenya, including the greater advantages accruing in projects implemented through PPPs. are aware of the advantages of the application of PPPs for down-market urban housing in an economy. Structuring of PPPs should be done in such a way that adequate and innovative long term financing of housing development is entrenched in the concept.

The research finds that some form of PPPs have been utilized to develop housing units as exemplified by cooperative housing and other organized groups programmes where members have greatly addressed their housing needs. In order to make the concept applicable in addressing local low income urban housing needs, the country must undertake several measures including: Utilizing the international experiences in utilization of the concept, defining the roles and functions of partners clearly, and applying a mix of PPP project delivery models like land swaps, turnkey, joint ventures and the cooperative methods. The country should operationalize diverse funding sources to develop the required housing units which includes: funds raised through cooperatives, pension funds, sovereign wealth funds and tapping into special funds as applicable. There should be fiscal and financial reforms to avail more funds for increased efficiency of PPPs, alongside creating innovative financing environment. The research finds that

at all times, the public sector has a greater role to play to make PPPs acceptable in developing low income urban housing. This role is manifested through government functions of leading law review, and incorporation of effective incentive structures, which makes issues like commodification to be addressed.

The research finds that application of PPPs requires operationalization of strategic partnerships between different stakeholders in the built environment. Such partnerships have been found to bring on board unique housing delivery technologies, innovative financing methods, better definition of project goals and outcomes, including addressing uptake models beforehand. The research finds that public authorities in Kenya are endowed with massive land, which should be availed for development of down market urban housing. This should be followed by master planning, land banking and development of trunk social and physical infrastructure.

The research finds that through utilization of the PPP concept, low income urban housing for rental, owner occupier, incremental housing or outright purchase can be provided at lower prices than has been the case in Kenya. This will be possible if the PPP laws are structured and amended such that they create room for application of innovative financing and uptake of developed units. The public sector should put in place mechanisms to reinvigorate the demand and supply sides and revitalizing the credit conditions, providing housing typologies and utilizing workable PPP models. In addition to public land, the government should operationalize low income urban housing developments that have clear project objectives, financing, uptake and master planning, in addition to creating greater awareness on the applicability of the concept. The research found out that the public sector can also create a non-profit organization (s) to champion the sustained development of down-market urban housing by pooling resources from diverse sources, including from the targeted beneficiaries. This has been the practice under the Harambee movement in Kenya since independence.

The research finds that the counties have roles to play in promoting application of PPPs, which includes: Creating incentives like land banking, installation of social and physical infrastructure, strategically negotiating with developers and financiers, while at the same time customizing international best practices to the local needs. Counties must develop county-specific PPP laws and regulations, by modifying the current national PPP laws to make them amenable to the housing sector while allowing for innovations in technology, financing, capacity building. The

review of such laws should be applied in building diversity, technological inputs, implementation strategies and sharing of resources for effective housing PPPs. The counties must develop deliberate efforts to incentivize the local private sector by introducing a one-stop shop for all PPP transactions among other initiatives.

The research finds that PPPs should be structured depending on the capabilities of the partners, such that the private sector are in charge of financing, risk management, construction, development, operation and maintenance. The public sector should be in charge of providing physical and social infrastructure, land, incentives, subsidies and enabling environment. Public land earmarked for housing development should be located in appropriate locations for example near or along the transport corridors and places of work. The public sector should treat such land for housing development as its equity contributions in the project by the government for the development of down-market urban housing through PPPs.

The second objective is to determine the challenges facing the application of PPPs in down-market urban housing in Kenya, wherein it has been found out that many challenges are likely to face the application of PPPs in developing low income urban housing, including: the long period taken to conduct and conclude PPP transactions on the part of the developer, which has a bearing on their rate of return on investments. The existing legal environment has not been conducive to development of down-market urban housing through PPPs because it leans towards physical infrastructure, which is highly profitable and has quick returns for investors. Development of low income urban housing through PPPs is likely to face political interference because of the nature of the concept, which requires collaboration of a wide variety of stakeholders, some of who might not be convinced of the need to house the urban poor. This has been occasioned by lack of common and shared vision, goal and implementation strategy for housing such low income urban households. The inadequate vision on housing such people have also been exacerbated by inadequate knowledge on advantages of PPPs. Such incoherent goal for housing such people might also lead to inadequate access to serviced land, which might hinder effective application of PPPs to address supply gaps.

The research findings is that challenges likely to face application of PPPs in construction of down market urban housing can be addressed by stakeholders working together. Some of the methods suggested for solving the challenges highlighted includes: Structuring PPPs projects

such that they address the underlying distinctive housing development characteristics, for example its social and public good status. The research findings is that adequate sensitizations, awareness creation, formulation of common and shared goals and vision for development of low income urban housing through PPPs should be pursued. This should be done through progressive and gradual consensus building on the need for exploring application of PPPs in low income urban housing. There should be more trainings on PPPs through creating partnerships with technical and vocational training and higher institutes of learning. To address the financing of PPPs, the public sector is obligated to develop cheaper low income urban housing financing options, alongside innovative project delivery methods. Such methods could include greater reliance on cooperatives who have solid membership, who can provide part financing, labour through sweat equity contributions and uptake of completed projects. Under such an arrangement, the government can provide appropriate incentives, like installation of social and physical infrastructure, formulation of adequate laws and regulations which improves greater PPP outcomes in housing supply.

The research finds that the major constraints for the effective and greater participation of private entities in PPPs for down-market urban housing were: the likelihood that it will take long before investors recoup their investments because of the lengthy approval processes; and the likelihood of existence of inadequate incentives structures, commodification of housing, where consumers take it as a social good while developers view it as another investment option. The likelihood of inadequate financing structures for low income urban housing; the likelihood of limited awareness on the benefits and advantages of PPPs in sectors like low income urban housing, alongside the complex legal requirements have slowed private sector from greater uptake of PPPs for housing development. There is the likelihood of existence of various risks to the developers like low returns, slow uptake of completed units, change of regimes which might affect progress of PPP projects, currency depreciations and price fluctuations.

The third objective is to determine the opportunities the PPP mode of procurement offers in the development of down-market urban housing in Kenya, wherein, it has been found out that there are many opportunities accrue to the public sector in the process of applying PPPs in constructing down-market urban housing. Some of the opportunities are: greater ease of access to the required capital and finances, the increased mobilization of resources from diverse sources,

in addition to enhanced access to modern, efficient and effective technology, which ensures faster delivery of required housing units. Through PPPs, the public sector will be able to access greater value for money in projects financing, in addition to greater transparency and accountability, which have been lacking in public project finance. The public sector is able to access innovative risk management techniques, which on the other side enables the private player to be incentivized to complete projects on time, off balance sheet and on budget, as opposed to public projects which result in cost overruns, stalling and variations of projects to the detriment of public finance.

The research findings is that the private sector too derive benefits and opportunities in participating in PPP projects, which includes: the private entities are likely to access more job opportunities, long term stable contracts, high profitability and incomes because of the reliability of government contracts as opposed to contracts. Private players participating in a PPP deal are able to access public assets like land, old estates and machinery, which can be leveraged to develop superior products for the people at lower costs, hence increased returns. Under normal contracts, the private parties do not have greater access to public assets like land but are confined to a particular site handed over to them. Another opportunity accruing to private players participating in PPPs is that they are able to fulfil corporate and social responsibility duties to their country and fellow citizens, which improves their brand and image, which creates long term stable relationships with the people, which is a guarantee for future contracts. The private players can also be seen as private entities likely to benefit from utilization of PPPs by leveraging their labour as sweat equity, which lowers the final housing unit's costs, hence enabling many people to access the developed units.

It is the research finding that Kenya needs to build local expertise in PPPs application by customizing the international experiences and knowledge to the local situations and demand. There should be deliberate efforts in developing standard manuals, typologies, designs and procedures for down market urban housing PPPs. This should be followed by structuring PPP arrangements which ensure win-win situations, which can be bolstered by identifying successful case studies, developing pacesetters and champions, all of which serve as learning points in the PPP utilization process. The research finds that development of down market urban housing PPPs should be strengthened by operationalizing inbuilt key performance indicators (KPI's),

which have emerged as a more effective yardstick for measuring performance. This should go hand in hand with setting clear project roles for each party in the PPP contract.

The research findings are that successful PPPs in developing low income urban housing requires the utilization of effective joint ventures, turnkey contracts, land swaps and a mixture of appropriate models which are workable and efficient in developing such housing units. The research finds that PPPs is indeed applicable in developing low income urban housing, but stakeholders should undertake several measures as suggested throughout this research, including simplifying the PPP process and incorporating innovative application of finance, technology, effectiveness, efficiency, materials, collaborations and environmental safeguards. Successful PPPs in developing down market urban housing will require heavy government investments through installation of social and physical infrastructure, application of adequate incentives to developers and targeted subsidies to low income urban households.

5.2 Conclusion

It is the conclusion of the study that PPPs are applicable in the construction and development of down-market urban housing in Kenya because there is an enabling legal environment and attendant institutions for its application, including the constitution, which has a broad based human rights regimes and sector laws. The nation's development blueprint of Vision 2030, alongside international legal instruments which Kenya is party to, like the New Urban Agenda and Sustainable Development Goals (SDGs) have necessitated innovative financing options, including PPPs.

It is the conclusion of the study that PPPs have succeeded in other sectors of the economy in Kenya, and the same is expected in the development of down market urban housing. This is supported by the fact that Kenyans have been found to have some level of awareness on the advantages and opportunities the concept can introduce in financing public projects, including their possible role in bridging financing gaps for low income urban housing.

It is the conclusion of the study that Kenya should learn from the experiences of countries which have used PPPs for housing development and domesticate or customize the same to the local situations. Various partners should have clearly defined roles in implementing successful down market urban housing PPPs. Once such roles have been defined, the stakeholders should tap into various and diverse PPP project delivery methods, alongside utilization of various project

financing and funding sources. The research concludes that a review of legal and regulatory environment is necessary, alongside creation of strong institutions to make housing PPPs a reality. It has been concluded that the public sector has a bigger role to play despite greater involvement of private players through setting of laws, regulations, standards, manuals and procedures.

It is the conclusion of the study that effective and successful application of down market urban housing PPPs will require that stakeholders operationalize strategic, workable, and distinctive project financing, technological and innovative ways of delivering required units. It is the conclusion of the study that low income urban housing PPPs should have adequate uptake models at the project conceptualization level, which should be strengthened by inbuilt performance indicators and delivery plan. This will ensure that all likely challenges which might affect the final uptake of developed units by the target groups are addressed during the initial stages of the project, while also aligning the interests of stakeholders and the interests of stakeholders in the contract. It is the conclusion of the study that down market urban housing PPPs cannot succeed without the greater participation and leadership of the public sector through: building consensus on the need to apply the concept, awareness creation, training, creation of an enabling environment, seeking stakeholder buy in, allocation of land, installation of social and physical infrastructure, facilitator and putting mechanisms to address housing commodification challenges. The study concludes that under PPPs, it is possible to develop affordable low income urban housing units in Kenya for outright purchase, incremental building, rental or owner occupier.

It is the conclusion of this study that the inherent challenges likely to face application of PPPs in developing down market urban housing can be addressed and hence pave way for successful application of the concept. Challenges like long periods taken to implement PPP projects, outdated laws and regulations, the likely political interference, lack of common vision on housing the low-income urban households, in addition to lack of awareness on the working of PPPs, and lack of serviced land are likely to affect optimal application of PPPs. It has been concluded that the challenges can be addressed by structuring PPPs in such a way that the unique housing characteristics are addressed and sensitizing people on the applicability of PPPs for down-market urban housing. Public entities should come up with cheaper down-market urban

housing financing strategies, provide incentives through serviced land with social and physical infrastructure; formulating adequate laws for the application of PPPs in down-market urban housing.

It is the conclusion of the study that counties too should address bottlenecks to local PPPs application through: enacting favourable county PPP laws that mirror the national ones, undertaking comprehensive county planning and master planning in addition to inclusion of housing agenda in the County Integrated Development Plans (CIDPs), addressing local housing commodification challenges and utilizing innovative housing financing strategies. Counties should build their local capacity to enable them structure and develop acceptable and bankable PPP project pipelines.

It is the conclusion of the study that effective down-market urban housing PPPs should in such a way that players complement each other. Under such an arrangement, the public sector can avail prime and its valuable land, which can be assumed to be their equity contribution in the development process. In some instances, stakeholders can undertake joint ventures to speed up the construction of down-market urban housing, where developers should demonstrate effective and efficient financial, technological, innovative and project delivery skills. Kenya can also tap into the entrenched cooperative movement, which has some attributes of PPPs, in developing low income urban housing.

It is the conclusion of the study that application of PPPs in the development of low income urban housing has many opportunities both to the private and public entities. The public, which has hitherto faced constraints in finances, will have increased access to resources due to higher financial mobilization skills of private players, in addition to greater access to technology, innovation, efficiency, effectiveness, sustainability, off balance sheet project financing, projects are delivered on time, as per budget and specification, and there is greater value for money and transparency. The opportunities to the private sector includes greater access to more job prospects through long term and stable public contracts. Through participation in such PPPs, the private entities are able to play a bigger role in developing their country as part of higher corporate social responsibility ideals.

5.3 Recommendations for Practice and Policy

Six major recommendations for practice and policy have been developed from this study. First, it recommends the application of PPPs in the development and construction of down-market urban housing in Kenya, because stakeholders will derive many opportunities in the process. The public authorities get to access more resources to bridge the supply of infrastructure and services including low income urban housing, through a variety of ways, some of which are off balance sheet. This ensures that projects are completed on time and budget and that risks are apportioned to the private players, which enables greater development of housing units for citizens.

Secondly, the study recommends that private sector in Kenya embraces the application of PPPs because they are able to access long term stable and high profitable public contracts. The ability of the private players to partner with the public entities in resolving socio-economic-political challenges fulfils the much required corporate social responsibilities for such firms, and which in turn earns more trust from the public sector. This has the ability to create room for greater access to future contracts, which increases their profit margins and gives them control of the specific business environment.

Thirdly, the study recommends that the public sector must develop workable and bankable PPP project pipelines backed by sound legal, institutional and operational environment. This should include enactment of new laws, amending existing ones and also creating a predictable project implementation process. The laws should provide for application of innovative financing, enhanced technology, application of managerial prowess, alongside operationalization of effective and efficient project delivery methodologies through PPPs. Adequate laws should give room for modification and customization of internal experiences to the local situations, while at the same time incorporating existing local practices in Kenya, like the cooperative movement and Harambee concept successes in of pooling resources together. The regulations should be developed to address the enacted laws, which should address all aspects of housing PPPs including financing and standardization of manuals and procedures, which increases the appeal of the concept.

Fourthly, the study recommends development and operationalization of adequate government support measures, including guarantees, part financing, enabling environment, incentives and subsidies for enhanced participation of the private sector in development of down market urban

housing PPPs. The envisaged government support mechanisms should be self-explanatory and be specific for each sector that its application is intended, in addition to the measures being adaptable to the various sectors of the economy. The government support measures should also set the conditions for their operationalization and also stipulate the kind of partnerships that can attract the operationalization of the measures. There should be adequate explanations and justification for the various incentives offered by the government like land, capital, assets and labour force.

Fifth, the study recommends operationalization and application of well-structured partnerships with other public agencies and private partners to deliver down-market urban housing and related infrastructure. This is because such partnerships have the ability to apportion resources, risks, responsibilities and rewards, which increases the probability of attaining the desired outcomes in down market urban housing PPPs. The advantages brought by such partnerships are immense and have the potential to develop innovative and modern assets and facilities. This has brought about the need to redefine PPPs such that the concept is not only seen as the contractual relationship between public and private sectors, but one in which public-public partnerships, public-private Partnerships, or Public-Public –private partnerships can be operationalized. These diverse partnerships have the prospects of operationalizing greater opportunities in service and infrastructure delivery in a country. The arising housing policies should have an element of institutional or employer housing schemes with the inbuilt need to tap into PPPs to address arising gaps.

Sixth, the study recommends formation of a non –profit organization through which the construction and development of down-market urban housing PPPs can be developed in the country. This body should act as a super body, which draws membership from private and public sectors, and hence creating the ability to tap into various financing sources, which should include: government, private entities, international development organizations, research institutions, academia, professional bodies and other charitable organizations. The body should be oriented to effective delivery of low income urban housing, which has the probability of promoting sustainable development principles. This body should also undertake more research on PPPs for down-market urban housing, in collaboration with other stakeholders. The rationale

behind such a body is that the low income urban housing sector has been neglected for long and, its undersupply poses greater danger to sustainable urbanization.

5.4 Recommendations for Academics

The study recommends the establishment of a national PPP institute to be charged with conducting advanced research, and disseminating the same on the applicability of PPPs in the development and construction of infrastructure and service delivery in Kenya. The envisaged research will be driven by professionals in the built environment, government officials, policy think tanks, non-profit organizations, international development institutes, development partners, and all interested parties. The institute should create more awareness on the advantages of applying various models of PPPs and the rationale for greater participation of the private sector in the development and financing of infrastructure and service delivery.

5.5 Contributions of the study

This study has made seven contributions to the body of knowledge and practice on the need for increased application of PPPs, and the need to use diverse PPP models for improved success rates. The study has filled the existing gaps with regards to the applicability of PPPs in down-market urban housing in Kenya, because other sectors of the economy have successfully used the concept.

First, the study has contributed to application of PPPs as an additional way through which down-market urban housing can be delivered for the citizens. This adds to the body of literature on ways through which housing can be delivered which have hitherto been: commercial or private sector, public sector and non-official, traditional, cooperative or informal housing development programmes. PPPs as a housing delivery method has been shown to provide a unique way and partnership through which housing stock can be increased in a country by collaboration between various stakeholders. PPPs have the ability to leverage the efforts of government and other stakeholders in developing the required housing units to address the ever increasing demand. Through PPPs, the communities which are the target populations, private players, cooperatives and organized groups can increase the development of low income urban housing to eliminate slums and informal settlements in the country. Application of PPPs have been proved to be effective in operationalizing effective synergies for increased housing development, which

increases the ability of parties to use their diverse strengths and capacities in a complementary manner, which has the ability to produce greater efficiencies, effectiveness in asset utilization.

Through this study, stakeholders, including policy makers are made to see PPPs in another light, that of greater application of PPPs beyond the physical infrastructure to low income urban housing needs by aligning interests of concerned parties. The PPP concept has the tendency to bring stakeholders together to strategically and cooperatively address underlying challenges, including development of down market urban housing.

Secondly, the study has contributed to the literature on the evolution of PPPs and its application in down-market urban housing, demonstrating that PPPs have traditionally been used in the hard and physical infrastructure. It has demonstrated that the concept evolved to include financing of soft infrastructure, including development of down-market urban housing by utilizing strategic synergies. This rationale is drawn from the realization that private parties have been involved in the delivery of public infrastructure on behalf of the public sector for a long time. It has been demonstrated that application of PPPs increased from the 1980s due to many challenges which faced governments, and which are set to worsen due to sluggish performance of the economy, while on the other hand, low income urban housing is a priority for enhanced urban areas sustainability. The study has illustrated that governments cannot completely remove itself from infrastructure and service delivery obligations despite the challenges in financing and technology. It demonstrated that nationalization led to monopolistic tendencies and hence countries turned to privatization, which too, has not been acceptable because of the resultant political backlash and complete withdrawal of government in the delivery of critical services. PPPs have been accepted since they offer the middle ground between privatization and nationalization, and brings on board private sector in infrastructure and housing development, with active participation of government throughout the process.

Thirdly, it has contributed to the body of knowledge on down-market urban housing development by showing that the challenges facing the sector should be addressed by the public, private sectors and non-profit organizations working together. It has demonstrated that the likely challenges to down market urban housing PPPs can be addressed and that a common vision for its application in addressing low income urban housing problems can unlock many bottlenecks. Through such a vision, workable and bankable PPPs can be structured and utilized to increase

the housing stock, which enables stakeholders to negotiate for affordable and innovative down-market urban housing financing options. It has shown that strategic incentives can be applied to developers while adequate and targeted subsidies can be applied to the households to make PPPs operational.

Fourthly, the study has contributed to the enhancement of the cooperative model as a form of PPPs, which can be utilized for enhanced low-income urban housing development outcomes. The study has illustrated that countries should develop special and hybrid funding arrangements for low-income urban housing delivery, in addition to adequate laws and regulations to increase the prospects for its application. The hybrid model of financing down-market urban housing works such the government avails land, part financing, subsidies, enabling environment, housing infrastructure, and master planning, which will ensure synergy and adequate resource allocation. The developers should provide financing, technology, innovative design, construction and development, while communities should provide labour as sweat equity and their savings as part of their contributions to the development of the envisaged housing. This should include exploration of workable joint ventures and utilization of the hybrid models of PPPs, that embrace good practices from the cooperative movement in Kenya, which grew from the Harambee concept used since independence, all of which have led to improved project outcomes.

Fifth, the study contributes to an increase in the number of doctoral studies undertaken using the Delphi method of forecasting across the world. Sixth, the study has contributed to the applicability of PPPs in down-market urban housing in Kenya, by showing that despite the low application of the concept currently, it is applicable in development of low income urban housing through the right structuring, creation of an enabling environment and adequate preparations and planning. It has been demonstrated that PPPs can be applicable with the increased role of government through enhanced political support, enabling environment through formulation and development of favourable laws and ensuring community and stakeholder buy in.

Seventh, the study has contributed to the furtherance of the aspirations of the Principal Agency theory, by proving that the Kenyan public sector is unable to deliver down-market urban housing on its own, and as such, the principal (public sector) must contract the agent (private player) in addressing the ever increasing housing demand. The agents in this case can be contractors, cooperatives, organized groups and developers, and where the public sector (principal) should

apply the right incentives for the optimal performance of the agent. The research has contributed to the reality that in Kenya, the private entities (agents) should take up more roles of the public sector (principal) to address demand for down-market urban housing as postulated by the PAT theory.

In line with this theory, it is important to note that the study has demonstrated areas of agreement with the neoliberalism theoretical underpinnings in housing delivery, because it supports the idea of removing governments in the actual construction and development of infrastructure, including housing development. It advocates for outsourcing of housing development requirements to the private sector, because of the shortcoming of government-led approaches in housing development. Neoliberalism supports enhanced role of the private players in housing development as opposed to greater role of the public sector in its supply because of its many failures.

The research has contributed to the knowledge that down market urban housing PPPs will operationalize enhanced bundling of services and deliverables to be implemented by the private party, which removes key project issues from the public sector. This doesn't mean that the public has no roles because under PPPs, the government roles include: setting standards, effective monitoring, adequate provision of guarantees, application of targeted incentives and creation of an enabling environment. Under PPPs, the government is no longer concerned with inputs but the outputs which are specified in the project formulation. The relationship formed between the public sector, private entities, low-income urban households and the civil society organizations evokes a special contract, where the rigidity of the players will need to be removed, hence PPPs are seen as a special contract. This brings about operationalization of the postulations of the contract theory.

5.6 Areas of Further Research

This study has not explored all the angles in the application of PPPs for down-market urban housing, and as such, the conduct of the research through Delphi enquiry might not have yielded some angles of the applicability of PPPs in down-market urban housing in Kenya. The study focused on the Delphi panels drawn from the housing practitioners, housing developers, and housing financiers because they are the major players in the development of the sector, but it did not involve actual down market urban households.

It is on this ground that the study recommends further research by involving the low-income urban households alongside the Delphi panels used in this research to compare the results with the findings herein.

Secondly, this research recommends further study on the effectiveness of providing incentives, guarantees and other government support measures to the private parties, in the application of PPPs for the development and construction of down-market urban housing. The resultant results should be compared and an analysis done on how such measures can contribute to the applicability of PPPs in developing down-market urban housing. Studies conducted along this line can also explore the required levels of support and guarantees from the public sector, which can be applied to yield positive returns on the applicability of PPPs in housing. Such studies can also gauge the effectiveness of the existing government support measures enactment in 2018 by the Kenyan government. The research conducted on the effectiveness of incentives and enabling environment should also study and make recommendations to address the prevailing constraints which hinder effective participation of developers in the construction and development of down-market urban housing through PPPs. The outcomes should highlight strategic ways of addressing the identified challenges and hence making it possible to develop and increase housing stock for low income urban households in the country.

Thirdly studies should be undertaken on the effectiveness of the current PPP laws, regulations and institutional set up, which will be used in the application of PPPs for down-market urban housing and housing development in general. This is because despite the existence of a vibrant legal and regulatory frameworks, the country has only 76 projects lined up for implementation under PPPs. It is on this front that advanced research should be undertaken to establish innovative ways of addressing existing legal and institutional constraints as highlighted in this study.

Fourthly, further research should be undertaken to explore the prospects of utilization and leveraging on the well-established cooperative and Harambee movement concepts in PPPs, especially in the rural Kenya, because such models have had greater impact in actualizing many projects. The study in this line should explore the applicability of such concepts alongside PPPs such that they increase the uptake and greater success rates in the development of down-market urban housing in Kenya.

Lastly, this being a pioneer study in terms on the applicability of PPPs in down-market urban housing in Kenya, it only applied the forecasting method of Delphi, which might be limited in terms of highlighting the actual challenges for applicability of PPPs. This study, therefore, opens up opportunities for further research on the best PPP arrangements for the development and construction of down-market urban housing. This is because this study has confirmed through Delphi forecasting that PPPs are applicable in development of down market urban housing in Kenya. The study therefore recommends further studies to establish the best ways to structure acceptable and win-win partnerships for down-market urban housing in Kenya.

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APPENDIX 1: WORK PLAN AND BUDGET

1. Research Work Plan

Activity	Months of 2017/2019																							
	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J
Develop and submit final proposal																								
Make corrections/revise proposal/submit																								
Undertake data collection rounds 1 and 2																								
Data analysis and final round data collection																								
Presentation of 1 st draft thesis report and corrections																								
Presentation of the 2 nd and final thesis report and binding																								

2. Research Budget

S/No.	Item	Cost in Ksh	Remarks
1.	Proposal development	Nil	
2.	Stationary, printing and binding the project	10,000	This start from proposal stage to final project
3.	Hiring of research assistant for data collection for 40 days @ Ksh 1,000 a day	40,000	
4.	Field travel for data collection	40,000	
6.	Research materials- Acts of Parliament, Laws, magazines and other periodicals not available locally for the research including internet access	50,000	
Grand Total		140,000 –This was raised through researcher’s own source of revenues	

APPENDIX 2: QUESTIONNAIRES

1. Round One Delphi Questionnaire



QUESTIONNAIRE FOR ROUND ONE DELPHI ON “APPLICABILITY OF PUBLIC PRIVATE PARTNERSHIPS (PPPS) IN DOWN-MARKET URBAN HOUSING IN KENYA”

Introduction:

I, Daniel Mutegi Giti, a Doctor of Philosophy (PhD) in Urban Management candidate, University of Nairobi, registration number B80/51806/2017, is undertaking a research project entitled “Applicability of Public Private Partnerships (PPPs) in down-market urban housing in Kenya”. The main research objective is to evaluate the applicability of PPPs in down-market urban housing in Kenya. The sub objectives are:

- i) To evaluate the frameworks for the application of PPPs in down-market urban housing in Kenya;
- ii) To determine challenges facing the applicability of PPPs in down-market urban housing in Kenya;
- iii) To determine opportunities, the PPP mode of procurement offers in the development of down-market urban housing in Kenya

To meet these objectives, this study uses a Delphi technique of forecasting on the applicability of PPPs in down-market urban housing. The rationale for the choice of Delphi as a forecasting method is because PPPs have not been used in the application of down-market urban housing in Kenya; that this is a new concept in funding the construction and development of housing in Kenya. Delphi is suited to such areas which have not been explored before and enables the combination of expert understanding to make conclusions on future applicability of PPPs in down-market urban housing in Kenya. Because of your position in society and the role you play in the promotion of housing development, you have been identified as a respondent in this research work.

In this regards, you are invited to participate in this study throughout the three Delphi rounds so that at the end, the research will establish the applicability of PPPs in down-market urban housing in Kenya. As such, I would be pleased for scholarly soundness to have participants who can effectively take part in all the three Delphi rounds. Your contributions will be to the advancement of knowledge in society, more so in how private institutions working in partnerships with public entities can fund various infrastructural projects in Kenya, including down-market urban housing.

In this research study, down-market urban housing refers to construction of adequate, affordable, quality and decent housing for low-income urban households in Kenya. It includes all aspects of design, financing, construction and management of housing units to benefit urban households whose incomes makes them unable to access housing at the prevailing market rates. It includes all the activities carried out by the public and private entities with a view of lowering the housing units' costs without compromising on quality of housing. Housing provision being a process, down-market urban housing in this study will incorporate construction of actual housing units and the installation of housing infrastructure. Public Private Partnerships (PPPs) refers to any collaboration, joint ventures, partnerships or any activity that is undertaken between public bodies or the government agencies and the private sector; aimed at delivering down-market urban housing to Kenyans.

Your views will be treated as confidential and for academic purposes only.

ROUND ONE DELPHI QUESTIONNAIRE

This round will be purely exploratory; detailed questionnaire will be at the second and third round of Delphi. At every round of Delphi questionnaires, participants will be informed of the general opinions of other panel members on the subject matter under investigation.

Questions:

1. a) Which of the following best captures your level of education? (tick as appropriate)

- i) Primary level
- ii) Secondary level
- iii) Post-Secondary level

b) What is your gender?

Male Female

c) Would you classify yourself as a Housing Practitioner, Housing developer or Housing Financier? (Tick as appropriate). Housing practitioner means somebody working in the housing and built environment sector in national and county government.

Housing Practitioner Housing Developer Housing Financier

d) Are you familiar with Public Private Partnerships (PPPs?)

Yes No

e) In your line of operations, have you come across Public Private Partnership's application in any field?

Yes No

If yes, what area what it on?

f) Are you familiar with institutional, legal and regulatory environment for PPPs application in Kenya?

Yes

No

g) If yes, which of these are you familiar with?.....

h) Do you think PPPs can be applied in the development of down-market urban housing in Kenya?

Yes No

i) If yes, which are the possible ways in which PPPs could be used for down-market urban housing in Kenya?.....

j) i) In your own assessment, do you think that structuring PPPs to suit housing production can lead to their applicability in down-market urban housing in Kenya ?

Yes No

ii) What unique factors of down-market urban housing production do you think PPPs should address to make it possible for their application in such housing development projects?.....

iii). What price of a standard family dwelling unit would you consider fit for down-market urban households?.....

iv). How can PPPs lead to price reduction of a housing unit so as to make down-market urban housing be affordable to majority of Kenyans?.....

2) Which challenges do you think would hinder the application of PPPs in down-market urban housing in Kenya?.....

b) How do you think the challenges identified above would be addressed to unlock the application of PPPs in down-market urban housing in Kenya?

c) What can the Government (National and County) do to make PPPs applicable in Kenya?

i) National Government.....

ii) County Governments.....

d) i) Public institutions in Kenya have a lot of land which has not been fully utilized; do you think that this land can be used as an attraction to the private entities to partner with government for down-market urban housing?.....

ii) If yes, how would such an arrangement be structured to make PPPs in down-market urban housing be actualized?.....

e) i) Kenya is known for the “Harambee” spirit since independence where the public and private entities worked together to provide infrastructure. Can PPPs in down-market urban housing benefit from such cooperation?.....

ii) What features of Harambee spirit can PPPs in down-market urban housing in Kenya benefit from?.....

3. What opportunities does the private sector offer in the application of PPPs for down-market urban housing in Kenya?.....
- a) What opportunities do market dynamics in Kenya offer in the application of PPPs for down-market urban housing in Kenya?.....
- c) What advantages does the private sector have, that public institutions can tap to make application of PPPs in down-market urban housing in Kenya possible?.....
- d) Why has the private sector not participated fully in PPP ventures in the country?
- e) What constraints do market forces face in the application of PPP programmes for down-market urban housing in Kenya?.....
- f) What should public or private entities do to make PPPs applicable in down-market urban housing in Kenya.....
- g) Do you have examples of Kenyan public institutions working with private sector to finance construction of any i) infrastructure project?.....
- ii) Housing projects?.....
- h) What lessons can be learnt from such ventures/partnerships between public and private entities which are valuable for PPPs application in down-market urban housing in Kenya?.....
- i) Do you have any other observation, comment or important issue on the application of PPPs in down-market urban housing in Kenya?

XXXXXXXXXXXXXXXXXXXXXXXXX THE END XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Thank you for participating in this first round of Delphi.

2. Round Two Delphi Questionnaire



ROUND TWO DELPHI QUESTIONNAIRE ON THE “APPLICABILITY OF PUBLIC PRIVATE PARTNERSHIPS (PPPS) IN DOWN-MARKET URBAN HOUSING IN KENYA”

Introduction:

I, Daniel Mutegi Giti, a Doctor of Philosophy (PhD) in Urban Management candidate, University of Nairobi, registration number B80/51806/2017, is undertaking a research project entitled “Applicability of Public Private Partnerships (PPPs) in down-market urban housing in Kenya”. The main research objective is to evaluate the applicability of PPPs in down-market urban housing in Kenya. This is a follow up of the First round Delphi questionnaire administered in April-May 2018. It contains two sections.

Fill in the questionnaire for Round Two Delphi by ticking, providing written answers or using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) as appropriate.

SECTION ONE: PRELIMINARY

1. a) Which of the following best captures your panel (tick as appropriate)

Housing Practitioner Housing Developer Housing Financier

b) It was noted in the 1st round Delphi that all the panellist (100 %) or a frequency of 88 were familiar or have heard about PPPs in development projects, do you agree with this finding? (tick as appropriate).

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

c) It was found out that of those who were familiar with PPPs, 77% had real experience with how PPPs have been utilized in delivery of infrastructure, do you agree with this finding? (tick as appropriate).

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

d) All the panellist had a frequency mention of 53 out of 88 stating that PPPs have been utilized in provision of down-market urban housing. Do you agree with finding? (tick as appropriate).

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

e) It was found out that 97% of the panellist were aware of the legal, regulatory and institutional arrangements for the application of PPPs in Kenya. Do you agree with this finding? (tick as appropriate).

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

f) 95% of the panellist stated that PPPs are applicable in the development and construction of down-market urban housing in Kenya. Do you agree with this finding? (tick as appropriate).

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

g) 94% of the panellist stated that structuring PPPs can make the concept applicable in construction and development of down-market urban housing. Do you agree?

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

h) The panellist have proposed many ways in which PPPs can be applicable in down-market urban housing. Tick the ones you think are the most viable in the table below (tick as appropriate) 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree.

S/No	Item	1	2	3	4	5
1.	Government provides serviced land with infrastructure; while the investors provide capital, technology, innovative approaches, managerial acumen					
2.	Utilize various PPP models like Turnkey, joint ventures, land swap					
3.	Government can use diverse financing options					
4.	Government should offer guarantees, enabling environment					
5.	The legal environment should be made suitable for PPPs					

6.	Housing should be made to be a proper commodity for trading					
7.	Rely on international developers, financial institutions case studies					

i) What is your opinion on the current legal, institutional and economic frameworks for the application of PPPs for down-market urban housing?

.....

j) What do you think need to be improved as regards legal, institutional and economic frameworks for the application of PPPs for down-market urban housing?

.....

2. a) The panellist identified the following as the unique factors of down-market urban housing which should be solved/ addressed before PPPs can be applicable in down-market urban housing in Kenya. Do you agree that these are the main issues? (tick as appropriate) 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	Provide enabling environment, infrastructure, offtake mechanisms					
2.	Address the housing commodification challenge					
3.	Government should avail serviced land, standard design, manuals					
4.	Form strategic partnerships with stakeholders					
5.	Utilization of technology, innovation and uptake models					

b) i) The panellists provided a range of housing prices they considered fit for down-market urban housing. Do you agree with the figures provided? (tick as appropriate) 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	500,000 – 800,000					
2.	1, 000,000 – 2, 500,000					

ii) What factors do you think can make a housing unit under PPPs become affordable for down-market urban housing in Kenya (state in order of priority).

.....

SECTION TWO: PUBLIC PRIVATE PARTNERSHIPS AND APPLICATION IN DOWN-MARKET URBAN HOUSING

3. a) The panellist identified the following as challenges which hinder effective application of PPPs in down-market urban housing. Do you agree with the list of challenges provided? tick as appropriate) 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	PPPs require long periods to implement and recoup investments					
2.	Inadequate laws & institutional structures, enabling environment					
3.	Inadequate knowledge on how PPPs work, limited awareness					
4.	Lack of common vision, conflicting goals, resistant by some quarters					
5.	Lack of serviced land with housing infrastructure					
6.	Political interference, corruption, low resource mobilization					

- b) The panellists also identified how the challenges stated above would be resolved to make PPPs applicable in down-market urban housing in Kenya. Do you agree with the proposed solution to the challenges provided? tick as appropriate) 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	Formulate adequate laws to suit housing sector & educe bureaucracy					
2.	Undertake awareness, common goals, consensus, partnerships					
3.	Provide incentives -serviced land, infrastructure, guarantees, subsidies					
4.	Government to negotiate for cheaper housing financing options					
5.	Structure PPPs in a way that respond to unique housing characteristics					

- c) The panellists stated that the government – national and counties have some clear roles to undertake to make PPPs applicable. For the national government, they stated that the Government could do the following, do you agree? tick as appropriate) 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	Amend existing laws & create enabling legal environment					
2.	Create awareness on working of PPPs, pace setters, champions, funding regulations, autonomous PPP Unit					
3.	Install infrastructure, land banking, use Saccos for uptake					
4.	Provide incentives to private developers					
5.	Scout for international best practices and customize it locally					

- ii) For the Counties, the panellist stated that they could do the following listed items to make PPPs applicable in their jurisdictions. Do you agree? (tick as appropriate 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	Create various incentives like land banking, develop local skills					
2.	Provide infrastructure, comprehensive county planning & land banking					
3.	Customize the national PPP regulations, laws and institutions locally					
4.	Undertake strategic negotiations with stakeholders					

4. a) It was noted by 86% of the panellists that land owned by public entities in Kenya can be used down-market urban housing. Do you agree with this finding tick as appropriate)?

Yes

No

ii) If your answer is no, briefly explain

.....

b) The panellists further observed that such land allocated by public entities can be used to form partnerships with developers. They proposed several arrangements highlighted below. Do you agree with the findings? (tick as appropriate 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	Government land can be used as equity in the development					
2.	Provide infrastructure and land in ideal location					
3.	Partner with developers who have sound financial capabilities					
4.	Undertake joint ventures (JVs)					

c) On whether the PPPs in down-market urban housing can benefit from the entrenched Harambee spirit in Kenya, 98% of the panellists stated that the Harambee spirit could be utilized to develop down-market urban housing through PPPs. Do you agree with this finding? (tick as appropriate).

Yes

No

ii) If your answer is no, briefly explain

.....

iii) On the features of the Harambee spirit that PPPs in down-market urban housing can use, the panellists provided the following statement. Do you agree with this finding? tick as appropriate 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	Utilize method cooperative method of buying land, savings, labour					
2.	Government provides infrastructure, guarantees, incentives, part financing; developers provide technology, capital, innovation					

SECTION THREE: OPPORTUNITIES AND ADVANTAGES FOR THE PPPS APPLICATION IN DOWN-MARKET URBAN HOUSING

5. The panellists identified the following as the opportunities and advantages brought by the private sector and market dynamics in PPPs arrangements. Do you agree with the listed opportunities/advantages? tick as appropriate 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	Capital mobilization skills, use of cooperative methods, technology, efficiency, effectiveness, value for money					
2.	Labour through sweat equity contributions, land					
3.	There are minimal profits as the sector is profit-driven					

- b) The panellists identified the following as the reasons as to why the private sector has not effectively participated in down-market urban housing PPPs. Do you agree with the findings? tick as appropriate 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	Inadequate awareness, lack of common vision & institutions					
2.	Long periods for project implementation, profitability					
3.	Inadequate incentives structures, commodification					
4.	Inadequate financing structures for PPP/affordable financing models					

- c) To elaborate the above point, the panellists also pointed out that private entities faced a myriad of constraints in their participation in PPPs for down-market urban housing. Do you agree with the findings? (tick as appropriate 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	Knowledge & information, technology gap/inadequate data on PPPs					
2.	Risk factors, high cost of financing/ inflation & corruption					
3.	Long & tedious approval processes, bureaucracy, affordability					
4.	Inadequate incentives structures for down-market urban housing					
5.	Pricing of housing viz a viz the income levels, commodification					

- d) The panellists observed that the Public and Private entities can undertake a variety of measures to make PPPs applicable in down-market urban housing. Do you agree with the

findings? (tick as appropriate 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	Create a not for profit organization for housing					
2.	Amend the existing laws, institutions to suit housing PPPs					
3.	Public entities to provide incentives and land to developers					
4.	Sensitize the public on PPPs application					
5.	Explore long term financing options for PPPs					

- e) The panellist provided valuable lessons which have so far been learnt in the application of PPPs for down-market urban housing. Do you agree with the findings? (tick as appropriate 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	Operationalize PPP champions, pace setter, case studies, KPI's					
2.	Undertake proper structuring of win –win PPPs					
3.	PPP is a workable model/ should be explored					
4.	Need to build local expertise for PPP transactions					
5.	Use variety of models					
6.	Develop standard manuals for PPPs application, procedures, designs					

- f) On the observations, comments or suggestions on applicability of PPPs in down-market urban housing, the panellist observed the following. Do you agree with the findings? (tick as appropriate 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree).

S/No	Item	1	2	3	4	5
1.	PPPs an idea whose time has come, need requisite attention					
2.	Address inherent challenges in the application of PPPs					
3.	Simplify PPP procedures, processes, standard designs, costing & financing models					
4.	Government incentivize the private sector					
5.	Heavy government investment in housing infrastructure needed					
6.	Come up with models of housing development which works locally					

Thank you for continued support in this research process.

3. Round Three Delphi Questionnaire



ROUND THREE DELPHI QUESTIONNAIRE ON THE “APPLICABILITY OF PUBLIC PRIVATE PARTNERSHIPS (PPPS) IN DOWN-MARKET URBAN HOUSING IN KENYA”

Introduction:

I, Daniel Mutegi Giti, a Doctor of Philosophy (PhD) in Urban Management candidate, University of Nairobi, registration number B80/51806/2017, is undertaking a research project entitled “Applicability of Public Private Partnerships (PPPs) in down-market urban housing in Kenya”. The main research objective is to evaluate the applicability of PPPs in down-market urban housing in Kenya. This is a follow up of the second round Delphi questionnaire administered in June -July 2018. This is the final questionnaire; it contains three sections.

Fill in the questionnaire for Round Three Delphi by ticking, providing written answers or using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) as appropriate.

SECTION ONE: PRELIMINARY

1. a) Which of the following best captures your panel (tick as appropriate)

Housing Practitione Housing Develo Housing Financie

b) On the general question of the applicability of PPPs in down-market urban housing, the respondents ranked the six key issues as shown in the order below. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) make your decision as appropriate.

Rank	Item	1	2	3	4	5
1.	There exists general knowhow & experiences on application of PPPs					
2.	PPPs are applicable in down-market urban housing					
3.	PPPs have been used before in down-market urban housing					
4.	There are legal & institutional arrangements for PPPs application					
5.	There exists some familiarity on need for PPPs application					
6.	Structuring PPPs can make the models applicable					

c) The panellist ranked many ways in which PPPs can be applicable in down-market urban housing. By using the Likert scale of: 1= strongly Disagree; 2 = disagree; 3 = Neutral; 4 = agree; 5 = strongly agree, make your final decision on the order of the possible ways

Rank	Item	1	2	3	4	5
1	Utilize international developers, financial institutions & case studies					
2	Legal environment should be made favourable					
3	Utilize diverse funds					
4	Address Housing commodification issues to make it a proper good					
5	Clearly define roles of partners					
6	Utilize various PPP models					
7	Government offer guarantees, incentives, enabling environment					

d) The respondents identified and ranked current legal, regulatory, institutional and economic frameworks for the application of PPPs in down-market urban housing in Kenya. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate.

Rank	Item	1	2	3	4	5
1.	Amend legal environment to make it responsive to housing PPPs					
2.	Use of innovative financing strategies					
3.	Address bottlenecks in application of PPPs					
4.	Develop county government specific PPPs policies & broaden applicability					
5.	Build the capacity of counties to enter into PPP arrangements,					
6.	Address housing commodification to attract investors					

e) The panellists provided the possible ways of addressing the above opinions and ranked them as follows. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate.

Rank	Item	1	2	3	4	5
1.	Public entities incentivize the private sector					
2.	Localize PPPs undertake market sounding & feasibility studies					
3.	Introduce one stop shop for PPPs, inbuilt flexibility & diversify models					

4.	Create specific legal environment for PPPs in housing					
5.	Inbuilt enhanced sharing of resources, ideas, technologies & strategies					
6.	Enhance management & utilization of public funds and assets					

- f) The panellists ranked the following 5 factors which should be addressed to make PPPs applicable in down-market urban housing in Kenya. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this order.

Rank	Item	1	2	3	4	5
1	Address housing commodification challenges & guarantees					
2	Government should avail serviced land, standard designs & manuals					
3	Create enabling environment					
4	Utilization of technology, innovation, financing and uptake models					
5	Form & utilize strategic partnerships					

- g) The panellists provided a range of housing prices they considered fit for down-market urban housing. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this order.

Rank	Item	1	2	3	4	5
1.	1M – 2.5M					
2.	500,000 – 800,000					

- h) The panellists provided and ranked 6 factors which can make a housing unit under PPPs become affordable for down-market urban housing in Kenya. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this order.

Rank	Item	1	2	3	4	5
1	Timely delivery of projects to avoid extra costs, cost overruns, interests regimes					
2	Clear project goals, delivery strategy, financing & uptake models, master planning and attractive project structure					
3	Public sector provide serviced land, infrastructure, guarantees					
4	Address the demand side – relax credit conditions, housing typologies					
5	Utilize workable PPP models with output specifications and performance					

6	Amend PPP Act, 2013, and create stable environment					
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SECTION TWO: PUBLIC PRIVATE PARTNERSHIPS AND APPLICATION IN DOWN-MARKET URBAN HOUSING

2. a) The panellist identified and ranked the following as challenges which hinder effective application of PPPs in down-market urban housing. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this order.

Rank	Item	1	2	3	4	5
1	Long periods taken to implement projects before recouping investments					
2	Political interference, corruption, low resource mobilization					
3	Inadequate laws, institutional structures/ enabling environment					
4	Lack of serviced land, housing infrastructure					
5	Inadequate knowledge on applicability of PPPs					
6	Lack of common vision for housing through PPPs, conflicting goals					

- c) The panellists also identified and ranked their preferences which can be used to address the challenges to make PPPs applicable in down-market urban housing in Kenya. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this order.

Rank	Item	1	2	3	4	5
1	Sensitizations, awareness creation, build common goals, partnerships					
2	Structure PPPs to address application constraints					
3	Develop cheaper housing financing options, use cooperatives & households					
4	Provide targeted incentives					
4.	Formulate adequate laws, amend others like PPP Act 2013					

- b. On the roles the national government can undertake to make PPPs applicable in down-market urban housing, the panellist ranked the roles as follows. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this order

Rank	Item	1	2	3	4	5
1	Create awareness, pace setters, PPPs champions, funding regulations					
2	Scout for international best practices and customize locally					
3	Provide incentives & subsidies to private developers, sweat equity					

4	Install infrastructure, serviced land, land banking, use Saccos idea					
5	Amend the existing laws like PPP Act, 2013, create enabling environment					

d) The panellist provided and ranked roles of counties in promoting the application of PPPs in down-market urban housing as follows. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this order.

Rank	Item	1	2	3	4	5
1	Provide infrastructure, planning, setting land banking					
2	Create various incentives at the local level					
3	Customize the national PPP regulations, laws and institutions locally					
4	Undertake strategic negotiations with developers, financiers and partners					

c. a) 91% of the panellists agreed that land owned by public entities in Kenya can be used down-market urban housing, while 9% did not agree. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this

Rank	Item	1	2	3	4	5
1	Yes (91%)					
2	No (9%)					

d) The panellists identified and ranked modalities for using such land allocated by public entities in the provision of down-market urban housing. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this ranking.

Rank	Item	1	2	3	4	5
1	Government land can be used as equity contribution					
2	Undertake joint ventures (JVs), with investors					
3	Partner with developers who have sound financial capabilities					
4	Provide infrastructure & land in an ideal location, jobs and transport					

e) i. On whether the PPPs in down-market urban housing can benefit from the entrenched Harambee spirit in Kenya, 87.5% agreed while 12.5% did not agree with this position. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N);

4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this ranking.

Rank	Item	1	2	3	4	5
1	Yes (87.5%)					
2	No (12.5%)					

ii. On the features of the Harambee spirit that PPPs in down-market urban housing can benefit from, the panellists provided and ranked the two main features as follows. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this ranking.

Rank	Item	1	2	3	4	5
1.	Utilize the Sacco method of buying land, gradual savings, labour					
2.	Government provides infrastructure, guarantees, incentives, part financing; while developers offers technology, capital, innovation, faster processing of development plans					

SECTION THREE: OPPORTUNITIES AND ADVANTAGES FOR THE PPPs APPLICATION IN DOWN-MARKET URBAN HOUSING

- d. a) The panellists identified and ranked the following as the opportunities and advantages brought by the private sector and market dynamics in PPPs arrangements. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this ranking.

Rank	Item	1	2	3	4	5
1	Targeted project beneficiaries can leverage on their labour as sweat equity contributions while government or organized groups can offer land					
2	Capital/finance /resource mobilization skills/Saccos method, technology, efficiency, effectiveness, value for money					

- b) The panellists identified and ranked the following as the main reasons why the private sector has not effectively participated in down-market urban housing PPPs. Using the Likert scale of 1 - 5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this ranking.

Rank	Item	1	2	3	4	5
1	Inadequate financing structures and financing models					
2	Long periods for projects completion, profits concerns; corruption; political interference					
3	Inadequate sensitization, vision & awareness creation					
4	Inadequate incentives structures; commodification of housing					

- c) The panellists further identified the constraints faced by private entities in their participation in PPPs for down-market urban housing. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this ranking

Rank	Item	1	2	3	4	5
1	Inadequate incentives structures like social and physical infrastructure					
2	Pricing of housing to incomes, commodification challenges for PPPs					
3	Long & tedious approval processes, bureaucracy, affordability issues					
4	Risk factors, high cost of transactions, financing and corruption					
5	Knowledge & information/technology gap, inadequate data on PPPs					

d) The panellists provided and ranked various measures which if implemented can make PPPs applicable in down-market urban housing. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this ranking.

Rank	Item	1	2	3	4	5
1	Sensitize the public on PPPs application					
2	Create a not for profit organization for housing development					
3	Amend existing laws & regulations/ create institutions housing PPPs					
4	Public entities to provide land, incentives to developers					
5	Explore long term financing for PPPs in down-market urban housing					

e) The panellist provided and ranked valuable lessons learnt in the application of PPPs for down-market urban housing. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this ranking

Rank	Item	1	2	3	4	5
1	Develop standard manuals, procedures, standard housing designs					
2	Use joint ventures, turnkeys & mixture of PPP models					
3	Structuring of win –win PPPs by balancing stakeholders interests					
4	Identify PPP champions, pace setters/case studies, KPI's					
5	PPP workable model for developing urban housing, explore it					
6	Build local expertise for PPP transactions					

f) The panellists identified and ranked observations, comments or suggestions on applicability of PPPs in down-market urban housing. Using the Likert scale of 1 -5 where 1 = Strongly disagree (SD); 2 = Disagree (D); 3 = Neutral (N); 4 = Agree (A); 5 = Strongly Agree (SA) tick as appropriate to make a final decision on this ranking.


Rank	Item	1	2	3	4	5
1	Come up with models of housing which works locally					
1	PPPs workable idea, should be given the requisite attention					
3	Heavy government investment in housing infrastructure required					
4	Address the inherent challenges in the application of PPPs					

5	Incentivize private sector/ create enabling environment					
6	Simplify PPP procedures and processes, standard & financing models					

Thank you for continued support in this research process.

APPENDIX 3: RESEARCH AUTHORIZATION

1. State Department of Housing and Urban Development


**MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING AND
URBAN DEVELOPMENT**
State Department of Housing and Urban Development

6th Floor, Ardhi House
1st Ngong Avenue
Nairobi

PO Box 30119-00100
Tel: +254 (0) 20 2718050
Fax: +254 (0) 20 2734886

Ref. No. 2009005374/ 34

Date: 6th April, 2018

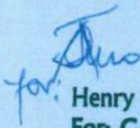
Mr. Daniel Mutegi Giti
Senior Housing Officer

RESEARCH AUTHORISATION

Reference is made to your letter dated 26th March 2018 in furtherance to NACOSTI letter Ref. No. NACOSTI/P/18/68323/21954 dated 20th March, 2018 on the aforementioned subject matter.

This is to inform you that the State Department has no objection for you to undertake research and authority is hereby granted for period ending 20th March, 2019.

By a copy of this letter Heads of Departments and Agencies are requested to accord the necessary support.

for: 
Henry Obanyi
For: CABINET SECRETARY

Cc: Principal Secretary – For Information

2.NACOSTI



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/18/68323/21954**

Date: **20th March, 2018**

Daniel Mutegi Giti
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Applicability of Public Private Partnerships (PPPs) in down market urban housing,”* I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **20th March, 2019.**

You are advised to report to **the Principal Secretary, State Department of Housing and Urban Development, the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

DR. STEPHEN K. KIBIRU, PhD.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

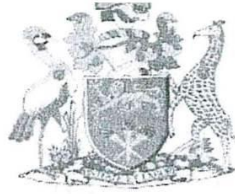
The Principal Secretary
State Department of Housing and Urban Development.

The County Commissioner
Nairobi County.

National Commission for Science, Technology and Innovation is ISO9001:2008 Certified

The County Director of Education
Nairobi County.

3. University of Nairobi



UNIVERSITY OF NAIROBI
SCHOOL OF THE BUILT ENVIRONMENT
DEPARTMENT OF ARCHITECTURE & BUILDING SCIENCE

E- mail: architecture@uonbi.ac.ke

P.O BOX 30197
Nairobi, Kenya
Telephone: 724528
Telegrams: Varsity

OUR Ref: UON/CAE/ABS/ST/B80/51806/2017

DATE: 08/03/2018

TO WHOM IT MAY CONCERN
FIELD RESEARCH

RE: GITI DANIEL MUTEGI - B80/51806/2017

The above named is a student at the University of Nairobi department of Architecture & Building Science pursuing a course leading to PhD. His topic is "Appliëability of Public Private Partnerships (PPPs) in Down Market Urban Housing in Kenya". It is normal practice that our students carry out Field Research for their presentations.

While collecting the data Mr. Mutegi may request to take photographs and make references to the drawings etc. The information will be used for academic purpose only.

Any assistance accorded to him will be highly appreciated by this office.


DEPARTMENT CHAIRMAN
Arch. Musau Kimiti
DEPARTMENT OF ARCHITECTURE
& BUILDING SCIENCE
UNIVERSITY OF NAIROBI
Chairman
Department of Architecture & Building Science

/mao.

4. State Department of Early Learning and Basic Education



Republic of Kenya
MINISTRY OF EDUCATION
STATE DEPARTMENT OF EARLY LERNING & BASIC EDUCATION

Telegrams: "SCHOOLING", Nairobi
Telephone: Nairobi 020 2453699
Email: rcenairobi@gmail.com
cdenairobi@gmail.com

REGIONAL COORDINATOR OF EDUCATION
NAIROBI REGION
NYAYO HOUSE
P.O. Box 74629 – 00200
NAIROBI

When replying please quote

Ref: **RCE/NRB/GEN/1/VOL. 1**

Date: **26th March, 2018**

Daniel Mutegi Giti
University of Nairobi
P O Box 30197-00100
NAIROBI

RE: RESEARCH AUTHORIZATION

We are in receipt of a letter from the National Commission for Science, Technology and Innovation regarding research authorization in Nairobi County on "**Applicability of Public Private Partnerships (PPPs) in down market urban housing**".

This office has no objection and authority is hereby granted for a period ending **20th March, 2019** as indicated in the request letter.

Kindly inform the Sub County Director of Education of the Sub County you intend to visit.

JAMES KIMOTHO
FOR: REGIONAL COORDINATOR OF EDUCATION
NAIROBI

C.C.

Director General/CEO
Nation Commission for Science, Technology and Innovation
NAIROBI