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COLLEGE OF ARCHITECTURE AND BUILDING TECHNOLOGY

DEPARTMENT OF BUILDING TECHNOLOGY

MSC. CONSTRUCTION MANAGEMENT



‘INVESTIGATION INTO THE ROLE OF PUBLIC PRIVATE PARTNERSHIP  
(PPP) IN THE PROVISION OF URBAN AREA ROAD NETWORKS FOR  
ACCELERATED DEVELOPMENT IN GHANA’

MASTERS THESIS SUBMITTED TO THE DEPARTMENT OF BUILDING  
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## DECLARATION

I hereby declare that this submission is my own research work towards the award of an MSc. Construction Management, that, to the best of my knowledge, the dissertation contains neither material published by another person nor material which has been accepted for the award of any other degree of the university, except where due acknowledgement has been made in the text.

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## ABSTRACT

The provision of infrastructure is crucial to the development of Africa .Sustainable infrastructure development is equally vital for Africa's prosperity (World Bank, 2009). To ensure that there is progressive sustainable development, governments and the private sector must come together to lead the revolution to ensure that Africa's infrastructure sector does not lag behind the rest of the world (World Bank, 2009).

The aim of this study is to “investigate why private sector has not partnered with government to provide roads in urban cities in Ghana”.

For the purpose of this study, the techniques deduced for the collection of data shall be questionnaires which would be physically delivered to respondents. The questionnaire was distributed to public sector workers involved with provision of road infrastructure in Ghana and specifically the Accra metropolitan Assembly area. The distribution of the questionnaire was to two senior officials each of the Ministry of Roads and Highways, the Department of Urban Roads, Department of Feeder Roads, Ghana Highway Authority and the PPP Unit of the Ministry of Finance. Responses received from the questionnaire was analysed in accordance with the objective of the research.

From the study conducted it was observed that, the private sector has contributed immensely to the provision of road infrastructure in Ghana. The private sector has contributed finance, technical expertise in the construction of several roads in several urban areas. The contribution of the private sector is not increasing significantly as expected, even though economic development is on the rise. Private investment in road infrastructure is on the decline because investment risk in roads keeps increasing due to unavailable appropriate repayment mechanisms. Public sector inability to pay realistic tolls makes it the more difficult for the existence of repayment mechanism.

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# CHAPTER ONE

## INTRODUCTION

### 1.1 BACKGROUND

Economic development generally refers to the sustained, concerted actions of policymakers (government) and communities (private individuals) that promote the standard of living and economic health of a specific area. The provision of infrastructure is crucial to the development of Africa. Sustainable infrastructure development is equally vital for Africa's prosperity (World Bank, 2009). To ensure that there is progressive sustainable development, governments and the private sector must come together to lead the revolution to ensure that Africa's infrastructure sector does not lag behind the rest of the world (World Bank, 2009). The lack of modern infrastructure is a major challenge to Africa's economic development and constitutes a major impediment to the achievement of the Millennium Development Goals (MDGs) and other vital objectives, such as revitalizing agriculture, improving rural road networks, railways and harbour (United Nations, 2008). There is also the uncertainty about the contribution of infrastructure to growth (Bourguignon & Pleskovic, 2007).

Ghana, an emerging economy on the African continent has similar challenges as that observed on the whole African continent. At the time of independence in 1957, Ghana had one of the strongest economies in Africa (Pierre, 2004). Ghana is a country well-endowed with natural resources and it has twice the value in goods and raw material per person, this gives indication that the country has great potentials (Pierre, 2004). Ghana's avenues of transportation are mainly, roads, bicycle ways, railways, waterways and air transport. Ghana in the 1970's and 1980's had its road system badly affected to the extent that the country is yet to completely restore and have adequate road transport (Pierre, 2004). Infrastructure development in Ghana has not been at its best, large amounts of raw materials don't make their way to the market centres, due to bad road networks from the sources of production in



the country, many workers spend productive hours in traffic to and from work, this have a negative impact on the productivity levels of the country. It can indeed be said that transportation has aided in the fast development of many countries in Africa, Ghana not being an exception (Mathew & Rao, 2004). In Ghana some of the benefits of transportation are the provision of jobs, technology transfer, as well as boosting the economy by the increase supply of goods to consumers. The provision of roads through some communities allow for integration of people of different ethnic background (Mathew & Rao, 2004). It has become necessary to speed up the provision of infrastructure, which is one of the main ingredients for development.

Infrastructure in Africa is exceptionally expensive, with tariffs being many times higher than those found elsewhere. Inadequate and expensive infrastructure is retarding growth by 2 percentage points each year (World Bank, 2009). A way forward is the introduction of the public private partnership initiative. This refers to long-term, Contractual partnerships between public and private sector agencies specially targeted towards financing, designing, implementing, and operating infrastructure facilities, services and maintenance that were traditionally provided by the public sector alone (United Nations, 2008). For any country to effectively develop in a balanced manner there has to be adequate supply of resources, (i.e adequate supply of land, capital and labour). The cost of a service or product is the amount of satisfaction a consumer will gain from consuming a product. Cost is also inversely proportional to supply, so the cost of goods and services tend to increase with the decline or unavailability of resources used for the provision of goods and services. In the developing world goods and services tend to be provided at a higher cost as compared to the developed countries.

## **1.2 PROBLEM STATEMENT**

Currently, the provision of roads to support development in urban cities and towns is not as desired due to problems such as inadequate funding from the government to support construction activities, upgrading and rehabilitation of existing infrastructure, poor traffic management measures and the rapid increase of roads users specifically vehicles. Unfortunately the problem of meagre funding for road projects as mentioned translate into construction time overrun as well as cost overruns as contractors' are unwilling to continue construction activities due to poor funding of their

projects. There is also the problem of inadequate number of roads for increasing road users. Once the government who is the main provider of road infrastructure is unable to provide funding for roads consistently over a period, then there is going to be gap in adequate road provision, and existing roads would be utilized to their limits, which would result in the faster deterioration of existing roads.

The problem of inadequate funding of road projects by governments if it goes on for an extended period of time, would create a huge deficit in the transportation sector of the country. This is evident from the growing traffic congestion in urban cities like Accra and Kumasi. Road users for that matter, vehicles in particular spend significant time on the roads. Also construction projects run beyond their expected completion time. The cost of operating vehicles also increase, it is therefore imperative for construction managers to secure projects that can be completed within project cost and project time. It is in this view that I want to investigate the reasons why private sector has not partnered government in the construction of roads in sprawling urban cities in Ghana.

### **1.3 AIM**

The aim of this study is to investigate into the level partnership of private sector with government to provide roads in urban cities in Ghana. Case study being the Accra Metropolitan Assembly

### **1.4 OBJECTIVES OF THE STUDY**

1. To identify the specific contribution of the private sector to the development of road infrastructure in selected urban cities.

To be able to identify the specific contribution of the private sector to the development of road infrastructure, the study would collect data from selected contractors and the Ministry of Roads and Highways to collect available data on the contribution of the private sector. By specific contribution I would identify what is the particular contribution of the private sector to the development of road infrastructure is, whether by the provision of technical assistance or provision of funds to support construction activity. The period of reference would be for the past five years.

I will also go the Ghana Highway Authority, the Department of Feeder Roads and the Department of Urban Roads to collaborate information received from the Ministry of Roads and Highways.

2. To identify specific contributions of the government (public) to the development of road infrastructure in selected urban cities.

Currently world practice has resulted in the rapid construction of road infrastructure projects through partnership between the private sector and the governments. Governments had hitherto been solely responsible for road infrastructure projects, and

Ghana being a specific case study. I want to know the contribution of the government in terms of technical assistance and funding for roads infrastructure projects.

Then also, I will visit Ghana's Ministry and agencies responsible for the provision of road infrastructure to collate data on what the government has provided in term of financial contribution and technical assistance.

3. To identify laws which protect and foster the joint partnership of the public and private sectors in the development of infrastructure.

With the general experience of fall outs in general business partnerships<sup>1</sup>, it very important and significant for private investors, as well as all stakeholders involved in PPP to know of the existence of a regulatory framework that promotes, control and protect the interest of all parties.

I would visit Ghana's Roads Ministry as well as the Ministry of Finance to identify laws that govern the partnership between private and the government collaborations.

4. To identify infrastructure developments which have been under taken in the spirit of private public partnership in the past ten years in selected cities Ghana.

I would also like to know the projects which have been undertaken, started and have been completed in the spirit of public private partnership. By visiting Ghana's Ministry of Roads and Highways and its agencies to collate available data over the past five years. This search will seek to reveal any experience of difficulty on the part of the government agencies as well as interview of the private firms or individuals who have been engaged this PPP projects.

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<sup>1</sup> Due to High incidence of disappointment in partnerships during business transactions lots of people are usually not encouraged by previous lessons

5. To compare the time taken for infrastructure development of projects developed with the public private partnership and those developed outside the partnership.

In comparing the time taken from projects inception I would seek to identify precisely procurement process time, the use of new technology in construction. An analysis would be done on data collected on Public Private Partnerships for road infrastructure projects to determine their project duration from inception, design period, post contract stages of the projects. With this information I would seek to identify the efficiency of PPP project delivery as compared to projects not executed through PPP.

### ***1.5 SIGNIFICANCE OF THE STUDY***

The transfer of risk to private sector, the applications of commercial know-how and managerial skills, the introduction of best-practice in technologies and innovation, enhanced government accountability, entrepreneurship and local enterprise development, promoting private sector financing mechanism and government payments can being leveraged by citizen user fees and/or government cost savings. This will result in faster deployment of more satisfactory services and assets (Hagan, 2009). The demand for Public Private Partnerships (PPPs) as an increasingly attractive tool for infrastructure and urban development is evident, especially in an economic climate where fewer resources are available for public service and infrastructure needs (Friesecke, 2006). It can be seen from the above extracts that Ghana which is an emerging economy needs to encourage the study of how public private partnership can be used to promote development and for the road construction in its growing cities to support development.



## **1.6 METHODOLOGY OF STUDY**

Interview - In this study one of the approaches to gather data will be to interview potential individuals or organisations who has directly worked with the private and public sectors in relation to infrastructural development.

Questionnaire - Another means for collecting information about the research is to design questionnaire and distribute to respondents of the industry to have their views and aims at addressing the issues with regard to the objectives of the study.

Literature reviews - I will also engage in the extensive reading of materials both on the internet and from libraries to enable me gather enough information for the research work.

## **1.7 SCOPE OF THE STUDY**

The scope of this study aims to looking largely at what general literature has to say about public private partnership in the world in terms of definition and how it is used in two developed countries one each from Europe and Asia.

I would look at the African perspective of private public partnership as well. In this study I would like to investigate the existence of legal framework available in Ghana that enhances public private partnerships engagements. I also would like to look into the capacity of the public official in urban cities to handle complex issue with regard to development and maintenance of infrastructure.

Questionnaires used in this research would be distributed to collate information from respondents about project in the Accra Metropolitan Assembly Area.

## **1.8 TIME SCHEDULE**

This research is in fulfilment of the requirement for an award of MSc. Construction Management from the Kwame Nkrumah University of Science and Technology. Effective

start of the research will be in June 2013, and will be concluded in September 2013. For this reason I have a minimum time frame of three months to complete this research.

The introduction (chapter one) and literature review (chapter two) will be concluded by the end of June 2013. The chapter three (methodology) will be concluded by the end of July 2013. Chapter four of the research work would involve the analysis of the data received from interviews and questionnaires administered will be concluded by August 2013. The concluding section, chapter five will present the recommendations and conclusion of the research.

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### **1.9 STRUCTURE**

The structure of the thesis will be in chapters namely:

#### **Chapter 1**

This dissertation shall be organised into five chapters. The dissertation starts with a general introduction of the study topic and details out the reason behind the selected topic, and how the aim of the dissertation would be achieved, which is exemplified by the listed objectives.

#### **Chapter 2**

The background subject which constitutes the main theme of this research is to address the various issues outlined in the objectives, would be thoroughly explored in this chapter. This will include critically reviewing existing research materials (i.e. journals, textbooks, thesis, articles, reports and periodicals) to determine the origin, forms of Public Private Partnership and the benefits and problems of PPP as practised in the pioneering countries

#### **Chapter 3**

Presents the research methodology, research approaches, data collection techniques and the justification of the research strategy used for this dissertation.

Chapter 4 discusses data analysis of the data collected.

Chapter 5 discusses the result of the analysis as recommendations of the research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

The background subject which constitutes the main theme of this research is to address the various issues outlined in the objectives, would be thoroughly explored in this chapter. This will include critically studying existing research materials (i.e. journals, textbooks, thesis, articles, reports and periodicals) to determine the origin, forms of Public Private Partnership and the benefits and problems of PPP as practised in the pioneering countries. The research will also seek to identify what has been contributed by both the private and the public sector, and the existence of the legal framework of the PPP programs.

#### **2.2 BACKGROUND OF PPP**

Public Private Partnerships (PPPs) were introduced as part of neo-liberalization process, firstly, around 1992 in the United Kingdom (UK) by the Conservative government and it is believed to have spread throughout the world thereafter (Hearne, 2009) cited (IPPR, 2001; Osborne, 2000; Payne, 1999; Whitfield, 2001). Governments in most developing countries face the challenge to meet the growing demand for new and better infrastructure services (Quium, 2011). In Accra the demand for better roads cannot be over emphasised. This is because new developing areas need connecting roads whilst existing areas may either have their roads deteriorated or have not been developed at all. The central government represented by the local authorities have clearly indicated their inability to provide roads (Ghana National Development Planning Commission, 2013). In Ghana, it is now government policy to create a vibrant investment and performance based environment that will enhance benefit of PPP initiatives (Ghana National Development Planning Commission, 2013).

The partners in a PPP, are usually engaged through a legally binding contract or some other mechanism, agree to share responsibilities related to implementation and/or operation and

management of an infrastructure project. This collaboration or partnership is built on what can be contributed by each party of the partnership, what is usually put on the table is expertise, resources and responsibilities (Quium, 2011).

### **2.3 ORIGIN OF PPP**

The need to use PPP in the provision of key infrastructural projects is said to have started after the end of the Second World War (Hearne, 2009). When the need to quickly provide key social needs to the best standards became a key social requirement. There was the need to completely reduce the involvement of the state in the direct running of the economic activities, to the developing of policy and planning and regulating services (Hearne, 2009) cited (Brenner and Theodore, 2002; Harvey, 2005; Whitfield, 2006) .

Exactly where PPP originated from would be difficult to determine as there are many account as to the origination of PPP. 'Public Private Partnerships (PPPs) were introduced as part of neo-liberalization process, firstly, around 1992 in the United Kingdom (UK) by the Conservative government and it is believed to have spread throughout the world thereafter' (Hearne, 2009) cited (IPPR, 2001; Osborne, 2000; Payne, 1999; Whitfield, 2001).

In Africa government are to account for their stewardship during their reign. The increasing need for roads for instance has made it important for alternative forms to initiate projects have to be explored. PPP has become an option to be used to promote the development of infrastructure. In Ghana there is a deficit in the road provision and the central government has indicated that it can be able to meet the financial requirement to provide for roads (Ghana National Development Planning Commission, 2013).

### **2.4 FORMS OF PPP**

PPP is a relationship between the public sector and the private sector to provide the needs of the public sector through the transfer and sharing of risk to ensure value for money in the delivery of badly needed infrastructure (Olufemi, 2013). Achieving value for money is key in



PPP initiates. This is because PPP projects initiatives are to be properly designed to meet specification and performance standards to deliver to long extent efficiency to the public and ultimate user satisfaction. The various forms of PPP to be employed would depend on the needs of the public, the contribution by private and identified risks to be shared by the parties (Olufemi, 2013).

PPPs can be classified in various forms but generally involve one of the following types: Design, Build and Operate (DBO), Design, Build, Finance (DBF), Design, Build, Finance and Maintain (DBFM) and Concession-type PPPs (Hearne, 2009) cited (PPP Informal Advisory Group, 2001).

#### ***2.4.1. DESIGN, BUILD AND OPERATE (DBO)***

In the provision of road infrastructure this type of private initiative is where the private sector has taken the responsibility to develop designs for construction works. The construction of the facility is also undertaken by the private partner in accordance with the agreed specifications and standards. Usually the land is either one of the main contributions of the public partner. The operations of the facility provided are also managed by the private partner over a period of usually ten years but this must be agreed by the parties in any case. The private partner would ensure efficiency in the operations of the asset to achieve value for money to the public and also to enable the private sector to recoup some part of the agreed payment.

This is generally used in asset transfer situations, such as social housing provision or regeneration, whereby the state hands over development privileges of state-owned land or any other resources that the government has control over to a private developer in return for a limited number of social-housing units and community facilities (Hearne, 2009). This is usually done where the need to provide for some social need in the community is has reached



limits where the government can clearly not be able to provide for these amenities and the private sector would be called upon to support. The private partner has the responsibility to finance the project from inception through to the point of total implementation of the project. After the project has been completed, it operated by the private partner within the contract period and handed over to the public.

#### **2.4.2. DESIGN, BUILD, FINANCE (DBF)**

This arrangement between the private and public is where the responsibility to develop social infrastructure is handed over to the private sector to execute due to its capacity to finance the project, put together a technical team to design and cost the infrastructure project to be executed and to ensure that the facility is constructed and handed over to the public authorities (Hearne, 2009).

#### **2.4.3. DESIGN, BUILD, FINANCE AND MAINTAIN (DBFM)**

This model is typically used for accommodation projects such as schools and hospitals (Hearne, 2009), but could also be used in the provision roads. It is technically a combination of all the forms mentioned above. In the majority of these projects, the state purchases or owns the site and issues the private partner with a long-term license for the duration of the contract, solely to enable them to deliver the required services as outlined in the output specification. The private-sector contractor is responsible for designing, building, maintaining and financing the facility. It recovers its costs principally out of payments from the public sector, remunerated by deferred annual payments from the public sector (Hearne, 2009).

#### **2.4.4. CONCESSION-TYPE OF PPPS**

In this form of PPP, the government defines and grants specific rights to an entity to build and operate a facility say a road over a fixed period of time. In concessions, payments can

take place both ways: concessionaire pays to government for the concession rights and the government may pay the concessionaire, which it provides under the agreement to meet certain specific conditions (Quium, 2011).

An advantage of the concession type is that because significant risk taken on the partner, it allows innovation in the project development and project implementation stages. Another advantage to the public partner is the transfer of risk to the private partner by way of the huge investment made by the private partner (Quium, 2011).

Some disadvantages identified to this type of PPP arrangement are that it model PPP project is very difficult to implement in jurisdictions that there is no precedence of implementation. Also negotiation periods for this type of PPP are very lengthy as significant risk is transferred to the private partner (Quium, 2011). To ensure that critical areas are not overlooked during negotiations and agreement of concession arrangements there has to be a regulatory oversight arrangement to monitor the whole process. (Quium, 2011)

## ***2.5 THE PRIVATE SECTOR'S REQUIREMENTS TO IMPLEMENT THE PPP PROJECTS.***

Partnership is the relationship between two or more people or organizations that are involved in the same activity, this this description the private and public sectors come together for a common interest. Before the private sector would come together to partner the government to solve infrastructure needs, the private sector would have to be convinced that some indicators necessary for the security of the partnership has to be identified. The private partner would want to ensure the following exist:

1. Whether there is any PPP unit in government or any agency that can help in project development and implementation (Quium, 2011);
2. What previous experience exists within the government and how much capacity does the agency have in implementing the project (Quium, 2011);
3. Security of the private investment (Quium, 2011);

4. How much fund is available for project development and, if needed, how more funds can be obtained (Quium, 2011).
5. A fair return on investment taking into account the level of involvement and assumption of risks (Quium, 2011);
6. The promotion of good governance based on certain generally accepted core principles is a major responsibility of the government (Quium, 2011).

## **2.6 THE PUBLIC SECTOR'S REQUIREMENTS TO IMPLEMENT THE PPP PROJECTS.**

Just like the private sector wants to ensure the reliability of the partnership the government would want to ensure that the private partners that come are capable of successfully executing the project. For this reason the government looks out for the following before engaging in the PPP partnership;

1. Value For Money: A public service must be provided by the private actor that can offer better quality for a given cost or lower costs for a given quality outputs. This is how the policy seeks to maximize user satisfaction and optimize the use of public resources (International Bank for Reconstruction and Development, 2012);
2. Transparency: All quantitative and qualitative information used to make decision during the evaluation, development, implementation and monitoring stages, must be made public in accordance with existing laws and policies (International Bank for Reconstruction and Development, 2012);
3. Competition: Competition must be sought in order to ensure efficiency and lower costs in the provision of public infrastructure and services. The government must also avoid any anti-competitive or collusion behaviour (International Bank for Reconstruction and Development, 2012).

4. Adequate Risk Allocation: There must be an adequate risk allocation between the public and private parties. This means that the risks must be assigned to the party that has the greatest capacity to manage the risks at a lower cost, considering both the public interest and the project's characteristics (International Bank for Reconstruction and Development, 2012).
5. Budgetary Responsibility: this is defined as the Government capacity to assume the firm and contingent financial commitments related to the implementation of PPP contracts without compromising the sustainability of public finances or the regular provision of the public service (International Bank for Reconstruction and Development, 2012).

The above is not exhaustive of the things that the public player may want to look out for before engaging in any PPP project, but anything that would ensure the total satisfaction and ensure that value for money is achieved in every sense of the word.

## **2.7 PPP LEGAL AND REGULATORY FRAMEWORK**

The “PPP legal and regulatory framework” can be thought of as all the laws and regulations that control whether, or how, PPPs can be implemented. These laws and regulations can include PPP-specific legislation, public financial management laws and regulations, and sector-specific laws and regulations (International Bank for Reconstruction and Development, 2012). This legal and regulatory framework when implemented is one which would greatly benefit parties in any PPP project in any country say Ghana. It would greatly protect private parties in unstable political environments like most African countries that are confronted with coups and dictatorial regimes. The legal framework would also protect countries from partnerships that would not be geared at the interest of the country.

The legal framework would also address the following areas of PPP activities:



1. Administrative law—in many civil law countries, government agencies are governed by administrative laws that govern their functions and decision-making process (International Bank for Reconstruction and Development, 2012):
  2. Procurement law—the transaction process for a PPP must typically comply with public procurement law and regulations, unless PPPs are specifically exempt (International Bank for Reconstruction and Development, 2012):
  3. Public financial management law—institutional responsibilities, processes, and rules established in public financial management laws and regulations can contribute to the PPP framework. For example, this could include project approval requirements, fiscal limits, budgeting processes, and reporting requirements
  4. Sector laws and regulatory frameworks—PPPs are often implemented in sectors that are already governed by sector-level law and regulatory frameworks. These may constrain the government's ability to contract with the private sector, or provide rules for doing so (International Bank for Reconstruction and Development, 2012).
- Other laws affecting the operation of private firms also apply to PPP companies, and should be taken into consideration when defining PPP projects and processes. These can include: Environmental law and regulations; Laws and regulations governing land acquisition and ownership; Licensing requirements, particularly for international firms; Tax rules; Employment law (International Bank for Reconstruction and Development, 2012).

The risks of having rules set in PPP contracts that conflict with decisions made under sector regulation are obvious. Not only will there be dispute and acrimony about which is to prevail, but the legal risk will likely lead private firms not to bid on the PPP opportunity in the first place. To resolve this problem, governments could choose either to exempt the PPP contract from some or all provisions of sector regulation, or to leave tariff and service standards for the PPP to the sector regulator. A fall back option is for



the PPP contract to provide for the government to compensate the private firm in the event that regulatory decisions are inconsistent with the terms of the contract (International Bank for Reconstruction and Development, 2012)

## **2.8 THE INTERNATIONAL EXPERIENCE**

Public Private Partnerships (PPPs) were introduced as part of neo-liberalization process, firstly, around 1992 in the United Kingdom (UK) by the Conservative government and it is believed to have spread throughout the world thereafter (Hearne, 2009) cited (IPPR, 2001; Osborne, 2000; Payne, 1999; Whitfield, 2001) this could be the case but in the united kingdom but the partnership has been ongoing ever since (Hearne, 2009). The government may not directly enter into a formal agreement but the private sector would be is willing to team up with team with governments or public sector for the success of any program. In a PPP project, the government enters into agreement a private company to design, build and/or finance and/or maintain and/or operate a public service or infrastructure (Hearne, 2009).

In Ghana a similar example exists where the project to construct a flyover the Tema Motorway has brought together three players, Trassaco Ltd which is the promoter and has the responsibility to provide financial support for the works from the design stage to the construction stage, the government of the republic of Ghana being the second party and the third party is the contractor- Link Infrastructure Company Ltd.

## **2.9 BENEFITS OF PPP**

PPP proponents argue that PPPs can address the considerable public infrastructure and service deficits that have built up in recent decades by providing private finance to permit a

greater level of public service and infrastructure delivery than would otherwise have been possible through direct government (public) funding alone (Hearne, 2009).

PPPs would also introduce private-sector innovation and management skills and would result in improved speed of delivery, value-for-money and efficiencies through the higher productivity of labour and capital resources (Hearne, 2009).

There are three important lessons to be learned from the Public Private Partnership projects discussed previously. First, Public Private Partnerships can create value by advancing transportation infrastructure projects (Hearne, 2009).

Much of the value comes from the private partner's operation efficiency, limited social responsibilities, increased market capitalization, and combined financial and decision making authorities in the partnerships (i.e., the personnel making decisions on tolls and development are also the ones taking the financial risk). (Qingbin & Lindly, 2010)

Second, it is a complex and lengthy process to form a public private partnership in transportation projects. A successful Public Private Partnership lies in three important factors: financing structure, risk sharing, and revenue allocation (Qingbin & Lindly, 2010).

Third, partnership agreements need to be carefully examined to protect the interest of all stakeholders involved in infrastructure projects. One can see potential conflicts of interest between the public agency and the private partner, between the private partner and the community, between the private firm and its employees, and so on. Therefore, attention should be paid to evaluate the impact of various agreement provisions on different stakeholders, e.g., a non-compete clause, toll rate control, employee protection, etc (Qingbin & Lindly, 2010).

## **2.10      *DISADVANTAGES OF PPP***

However, many of the aforementioned benefits of PPP have not been achieved in practice and, in fact, the outcomes of PPPs, to date, are very worrying from a public-service perspective (Hearne, 2009) cited (Grubnic and Hodges, 2003; IPPR, 2001; Leys, 2001; Murray, 2006; Shaoul et al., 2002). Problems identified in some PPP projects include poor value-for-money and service delivery, reductions in public-sector capacity and democratic accountability, the creation of a two-tier workforce and increases in user charges (Hearne, 2009) cited (Grubnic and Hodges, 2003; Murray, 2006; Shaoul et al., 2002). Such poor outcomes have led to considerable opposition across the world, particularly amongst trade unionists and local communities, to the introduction and expansion of PPPs (Hearne, 2009) cited (Callinicos, 2003; George, 2004; Harvey, 2005; Monbiot, 2000; Unison, 2003). PPPs have also been identified as contributing to the exacerbation of inequality and poverty, a trend associated with the neoliberal transformation of the welfare states internationally. In the face of the growing opposition to more overt privatization policies, PPPs have been identified as an important mechanism used by governments and the private sector to intensify the neoliberal transformation or marketization of the state (Hearne, 2009) cited (Brenner and Theodore, 2002; Harvey, 2005; Hodgkinson, 2008; Monbiot, 2003; Whitfield, 2006).

## **2.11      *ESSENTIAL FEATURES OF PPP***

1. The Legal Framework must be sound because of the different objectives of the parties (Olufemi, 2013).
2. There must be efficient and effective costing. The costing must take into consideration all the risks involved. PESTLES may be used in assessing the risk situation and in determining period (Olufemi, 2013).
3. The source of finance must be assured, accessible and sustainable (Olufemi, 2013).

4. Both parties must have technical knowledge of the infrastructure being developed though it may be at different levels (Olufemi, 2013).
5. It must be based on value for money (VFM), must be economical, efficient and effective (Olufemi, 2013)

### **2.12 THE IRISH EXPERIENCE**

According to (Hearne, 2009) ‘PPPs were introduced in Ireland on a pilot basis in June 1999 following recommendations made by the private sector in a report on PPP potential carried out by private consultants Farrell Grant Sparks in 1998 (Allen, 2007; Central PPP Unit, 2006a; PPP Informal Advisory Group, 2001; Reeves, 2001, 2003). However, there is a paucity of research into the origins, development and outcomes of these PPPs. Reports and reviews of PPPs undertaken by private consultants along with government-commissioned PPP reports and legislation, in line with their international counterparts, largely promote the positive aspects of PPPs and provide little in-depth analysis of why the government adopted this significant shift in public service and infrastructure delivery or its practical and potential implications. the Irish Government’s principal auditor of public spending, value-for-money (VFM) report on the Grouped Schools Pilot PPP project which found that the projected cost of the PPP deal was 8-13 per cent higher’.

### **2.13 PPP IN GHANA**

The Government of Ghana is facing monumental challenges in the infrastructure development. The provision of public infrastructure has been the responsibility of the Government. With the limited budget resources, the country’s huge deficit in infrastructure cannot be met by the public sector alone through the budget allocations.

It is therefore the policy of the government to encourage the use of PPP as a means of providing public resources with the private sector resources and expertise in order to close the



infrastructure gap and deliver the efficient and adequate infrastructure needed to boost economic development (Ministry of Finance, 2011).

Ghana hopes to leverage public assets and funds with the private sector resources from markets within and without to achieve the needed investment in infrastructure. It is believed that the partnership of the private sector and government will harness and utilize the resources put together by private sector. The partnership will result in the increased availability of infrastructure which will promote favorable business atmosphere (Ministry of Finance, 2011).

Considering the dwindling resources of the state, coupled with its inefficient public institutions, there is therefore the need for private sector participation in the financing of infrastructure both in terms of providing the needed huge capital and injecting greater efficiency with regards to the management of public utilities (Ghana National Development Planning Commission, 2013). PPP initiative provides a lifeline for government in Ghana in the face of its depleting resources. It also offers business opportunities for the private sector to be involved in the provisioning of social services. PPP redefines a government service or private business venture, funded and operated through a partnership of government and one or more private sector companies. According to the National Development Planning Commission (NDPC) Ghana requires an annual capital injection of \$1.5 billion fresh investments into infrastructural development, over the next decade, to bring the nation's infrastructural base to the status of a middle income country. For this reason the NDPC has formulated a medium term national development policy framework which is geared to move the republic of Ghana in a particular direction for the next Three years. The use of PPP to development public infrastructure in one of the main tools to achieve this policy (Ghana National Development Planning Commission, 2013)



## **2.14 THE AMERICAN EXPERIENCE - DULLES GREENWAY**

The Dulles Greenway project began as a joint venture of Mr. John Miller and Mr. Bill Allen. Both men understood the need for a road to combat the urban sprawl of Washington D.C., but Virginia did not have legislation in place to allow the development of a privately owned toll road (Qingbin & Lindly, 2010).

The Greenway was a successful project because most of the risk had been transferred to the private sector while much of the oversight was retained by the state (Qingbin & Lindly, 2010). Firstly, TRIP II agreed to transfer the Dulles Greenway back to the state at no extra cost (Qingbin & Lindly, 2010). In essence, the cost to the state is future maintenance after the lease agreement ends (Qingbin & Lindly, 2010). Secondly, the commonwealth has agencies at hand to ensure that the private entity makes sound decisions (Qingbin & Lindly, 2010). One such agency is the State Utility Commission which is in place to facilitate road development. Another agency is the State Corporation Committee, which has the power to deny toll raises set by TRIP II (Qingbin & Lindly, 2010). These agencies limit the state's risk by helping the private sector return to the state a successful project (Qingbin & Lindly, 2010). The third area of risk is unique to the Greenway (Qingbin & Lindly, 2010). Not only is the private sector paying for debt service and operations, they are paying local property taxes and paying state police to patrol the facility (Qingbin & Lindly, 2010). The Greenway pays \$2 million annually in property taxes and an additional \$175,000 to the state patrol service (Qingbin & Lindly, 2010).

Another reason for the Dulles Greenway's success was the private consortium's ability to produce revenue. While the Greenway struggled initially due to lack of interest and high tolls, it redeemed itself under the Australian firm Macquarie International Group. (Qingbin & Lindly, 2010)

## **2.15 PHASES OF A PPP PROJECT**

The phases of PPP projects may vary with the different categories of PPP described so far, but PPP generally evolves through a series of phases outlined. The following description of the procurement process refers to a vertical rather than to a horizontal partnership. (Wilhelm, et al., nd)

### **2.16 PHASE I - NEEDS ASSESSMENT & OPTION APPRAISAL**

At this initial stage of project formation, the need for a particular infrastructure facility is identified, normally by the government or more often by the project executing organization. The needs assessment is usually done in the form of a cost-benefit analysis. It will then consider what means it has for financing that facility and whether it is affordable. Also part of that Phase 1 is first considerations concerning the procurement method to be applied by undertaking a preliminary qualitative PPP Test. It analyses, whether the project might at all be suitable for being carried out on a PPP basis by investigating qualitative “no-go criteria” of legal, political, organizational or technical character (Wilhelm, et al., nd).

### **2.17 PHASE II: PREPARATION & CONCEPTION**

Once the project proves the primary feasibility to a PPP solution, the preparation works proceed by a detailed development of the PPP option in order to enable a comparison with the traditional one (Wilhelm, et al., nd). At this stage, governments are drawing their decisions for PPP based on greater efficiency the private sector will deliver in comparison to the traditional public procurement. In some countries, PPP projects are compared to traditional public sector finance by a quantitative public sector comparator (PSC) calculation (Wilhelm, et al., nd).

### **2.18 PHASE III: PROCUREMENT PROCESS & CONTRACT AWARD**

Once the government has determined to proceed with PPP, it will decide what procurement procedure to follow, given the applicable laws (Wilhelm, et al., nd). Commonly the government will employ competitive tendering (Wilhelm, et al., nd). It will include detailed output specifications as to the infrastructure facility and the length and terms of the PPP contract in the invitation to tender (Wilhelm, et al., nd). Accordingly, prospective sponsors, usually acting as consortia, will carry out their own feasibility studies and prepare to submit bids (Wilhelm, et al., nd). The government will evaluate these bids and select a number of preferred bidders for negotiation, during which the terms of the project will be discussed and redrawn (Wilhelm, et al., nd). At the end the contract is awarded to the bidder that best conforms to the defined awarding criteria (Wilhelm, et al., nd).

### **2.19 PHASE IV: IMPLEMENTATION & CONTRACT MANAGEMENT**

The implementation starts with the construction of project facilities. After passing agreed completion tests, the facilities will be accepted by the government and can commence operation (Wilhelm, et al., nd). In the case of user financed schemes, the special purpose/project vehicle (SPV) will use the revenues generated by the project to operate and maintain the facilities, to repay the finance and to pay a reasonable rate of return to its investors. Otherwise, in budget financed schemes, the SPV will receive periodical down payments e.g. based on availability of the asset (Wilhelm, et al., nd).

### **2.20 PHASE V: CONTRACT EXIT**

Upon the termination of the contract, the project facilities under those functional PPP models will be transferred to the government, usually for nil or nominal consideration and up to standard and conditions predefined in the PPP contract (Wilhelm, et al., nd).

## CHAPTER THREE

### METHODOLOGY

#### 3.1. BACKGROUND

There are two types of research methodologies, namely quantitative research and qualitative research (Fellows & Liu , 1997). The type of methodology to use depends on the purpose of the study and the type and availability of the information required (Naoum, 2007).

Since this type of research is a case study research, with the case study being the Road network in the Accra metropolitan Area, data would be collected within the area under study. Questionnaires developed would be administered and information gathered would be used for analysis and to draw up conclusion in the research work.

In the research methodology requires I would be gathering relevant data from the reviewed literature and compiled database in order to analyse the information and arrive at a more complete understanding of the participatory role of the private sector in Infrastructure Development through PPP. The information gathered in the literature reviewed, would be used to develop a questionnaire that would be administered to individuals and or organisations who have worked extensively on the PPP projects at the Ministry of Roads and highways and its Agencies as well as the staff engaged with PPP at Ministry of Finance of the Republic of Ghana.

I hope to shed light on the following questions in my research,

- A) What is the specific contribution or requirement of the private sector to the development of road infrastructure in selected urban cities in term of the following:
  - a. The Provision of Funds for projects execution.
  - b. The introduction of new technology and innovation in the project execution.

- c. The provision of human resource that have the expertise to be effectively used in project delivery.
- d. Access to land for construction activities.
- e. Submission of proposal by the private sector, which will serve as the backbone on which partnership between the two sectors could be enhanced for PPP activities.

B) What are the specific contribution and or requirements of the government (public) to the development of road infrastructure in selected urban cities, with specific reference to Accra Metropolitan Assembly? The specifics I want to look at is in terms of the following:

- a. The Provision of Funds to pay for projects executed.
- b. Ensuring that there is value for money in all PPP projects to be undertaken.
- c. To ensure that there will be skills and technology transfer during and after the project delivery.
- d. Submission of proposal by the Government, which will serve as the backbone on which partnership between the two sectors could be enhanced for PPP activities.

C) Are there laws which protect and foster the joint partnership of the public and private sectors in the development of infrastructure. To get a clear picture of this issue I will identify :

- 1) What Law is currently existing,
- 2) When was the law passed,
- 3) Is the probable private partner aware of this law,
- 4) The sufficiency of the law,



- 5) The consistency of the Law to International practice and
- 6) If the law has been tested here in Ghana and on projects in the Accra Metropolis.

D) To identify infrastructure developments which have been under taken in the spirit of private public partnership in the past five years in selected cities Ghana.

## **3.2. DATA COLLECTION TECHNIQUES**

This section would discuss the data collection technique suitable for this research.

### **3.2.1. DATA COLLECTION TECHNIQUE**

Research data can be collected using postal questionnaire or personal interviews or both, depending on how best to obtain the information needed for the research.

For the purpose of this study, the techniques deduced for the collection of data shall be questionnaires which would be physically delivered to respondents. The reasons for the selection of this technique are:

- i. It is ideal for conducting surveys such as this research, because the questions involved are not over-elaborated;
- ii. Questionnaires are suitable for analytical surveys with the intention to find out facts, opinions and views on what is happening. Hence from the aim of the research, questionnaires was appropriate to satisfy the set objectives;
- iii. Questionnaire was selected because it has the capability to achieve a high validity of results because of its coverage. This makes it suitable for this research; and
- iv. The time limitations of this research also makes questionnaires a suitable option because of the speed at which surveys can be conducted.

For the purpose of this research, the type of questions is mostly closed ended questions. This would satisfy all aspects of the objectives of the study where specific responses are required from respondents to the questions. Open or unrestricted questions seek to encourage the respondents to express thoughts and ideas not covered in the closed-ended questions, which requires short responses (e.g. yes and no,)

### 3.3. QUESTIONNAIRE DESIGN

The questionnaires to be used to solicit for the data for this research would be in two (2) sections

#### Section 1: General information

In this section, questions asked was intended to categorise respondents into their different roles in the industry (i.e. client, contractor), the position they hold, and years of experience within the construction industry. The purpose was to determine the authoritative nature of their answers based on the role they play during the construction process.

**Section 2: this section deal with questions that seek to address the objective of this study.** Questions in this section form the core of the research.

Below is a sample questions in this section

#### Private Sector Participation

1. In your opinion has the private sector contributed to the development of road infrastructure in Urban areas such as Accra?

a) Yes ☐

b) No ☐

If you answer 'Yes' please go to Que.2. If your answer is 'No' go to Que. 3

2. What has the private sector contributed to Road Infrastructure Development?

1. Funds

2. Innovation in Technology

3. Managing Inherent Risk

4. All of the above


5. None of the above

☐

3. Has the private sector drafted a proposal for Public (Government) endorsement and the need of participation in the area of Road Development in any Urban Area of Ghana?

a) Yes ☐

b) No ☐

If you answer 'Yes' please go to Que.4. If your answer is 'No' go to Que. 5

4. Please give a brief details on the proposal submitted?

a) Name of Project/proposal:.....

b) Project Location:.....

c) Status of implementation:.....

5. What in your opinion is the most useful asset that the private sector can share with the Public (Government) in the development of road infrastructure?

.....

.....

.....

### Government Participation

6. In your opinion has the Government contributed to the development of road infrastructure in urban areas such as Accra?

a) Yes ☐

b) No ☐

If you answer 'Yes' please go to Que.7. If your answer is 'No' go to Que. 8

7. What has the Government contributed to road infrastructure development?

1. Security of Private Investment

2. Establishment of PPP Unit

3. Land


4. All of the above
5. None of the above


8. Has the Government brought forward a proposal for Private Sector endorsement and the need of partnership in the area of road development in any Urban Areas of Ghana?

- a) Yes ☐
- b) No ☐

9. Please give a brief details on the proposal submitted?

- a) Name of Project/Proposal:.....
- b) Project Location:.....
- c) Status of Implementation:.....

10. What in your opinion is the most useful asset that the Government can share with the private sector in the development of road infrastructure?

.....

.....

.....

### Legal Framework

11. Are you aware of laws in Ghana to protect partnerships and in particular PPP ventures?

- a) Yes ☐
- b) No ☐

If yes answer question 12 if no, please answer question 13.

12. What is the name of the Law promulgated to facilitate PPP partnerships in Ghana?

.....

13. Has the Law benefited PPP project transactions?

- a) Yes ☐
- b) No ☐

14. Is the law adequate to protect the interest of both parties?

a) Yes ☐

b) No ☐

**PPP projects**

15. Do you know of any PPP projects undertaken in the last 5 years

a) Yes ☐

b) No ☐

If yes, please answer question 16 and if No, please answer question 17.

16. Please list a maximum of five (5) PPP projects in the last five years?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

17. Do you know of any failed PPP projects in the last 5 years?

a) Yes ☐

b) No ☐

If yes, please answer question 18

18. Please list a maximum of five (5) PPP projects in the last five years.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_



### 3.4. SAMPLE GROUP AND SIZE

A sample can be likened to be a specimen or part of a whole (population) which is drawn to show what the rest is like. Samples are always drawn out of a population in aid of a research and the suitability of each depends on the situation at hand (Naoum, 2007) and (McMillan & Weyers, 2007).

Akintoye and Fitzgerald (2000), states the usable response rate for questionnaire survey to be 20%-30%.

#### 3.4.1. PROCEDURE FOR SAMPLE SIZE SELECTION

The approach to be used for the selection of the sample size is the purposive sampling, this is a type of sampling based the subjectivity of the researcher when it comes to the units to be studied (Naoum, 2007). The following procedures would be deduced to determine the sample size:

- 1) Identification of sample size population; the sample size was drawn from two main areas, that is the private partner and the Government. The private partner can be financier or a contractor, whilst the government will be represented by the ministry of Roads and Highways and its agencies plus the Ministry of Finance. Two key government officials who are responsible for PPP projects activities would be selected. For the private partners five firms with Ministry of Roads and Highways financial classification of A1B1 category of contractors would be selected from the registered list of contractors with the ministry, these five contractors would be subjectively selected.

Five banks will also be selected as part of respondents to the questionnaire as they play a significant role in financing construction projects for contractors and clients.

In all 20 questionnaires would be circulated to above groups, which are ten (10) questionnaire to the government and ten (10) to the private sector.

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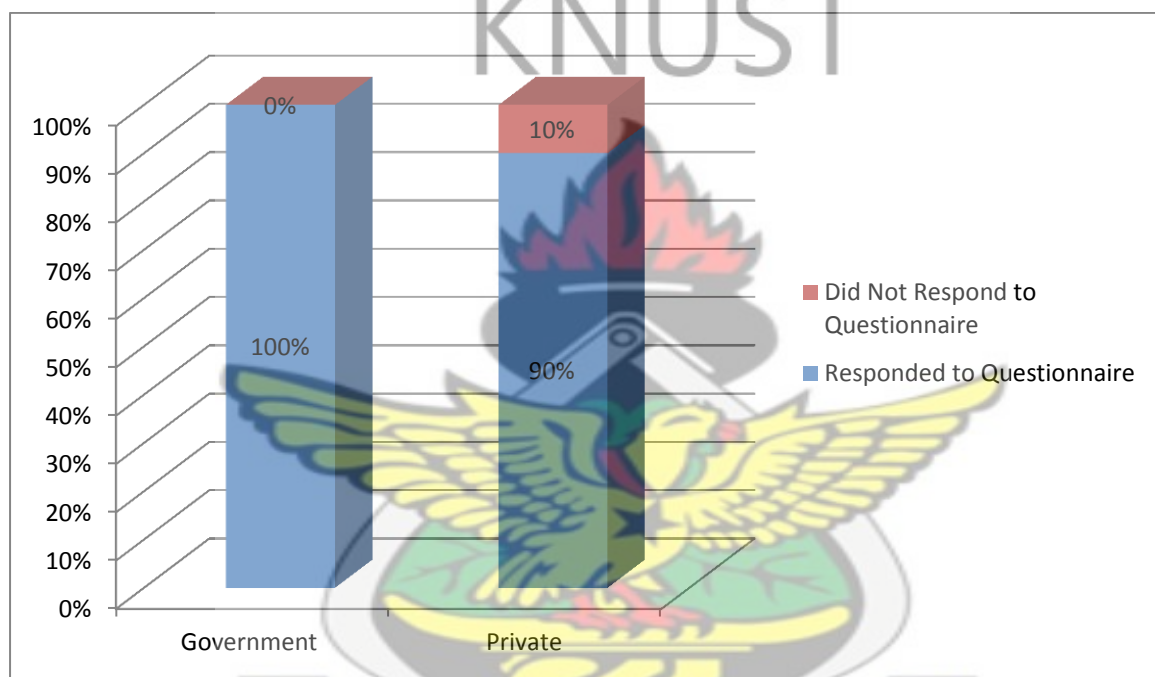
## CHAPTER FOUR

### ANALYSES

#### 4.1 INTRODUCTION

This section would look at summarising the data that has been collected and analyse it thoroughly. Of the twenty (20) questionnaires distributed nineteen responded and was collected. One was non responsive. Below is the distribution of questionnaire collected.

Figure 1 Questionnaire Distribution

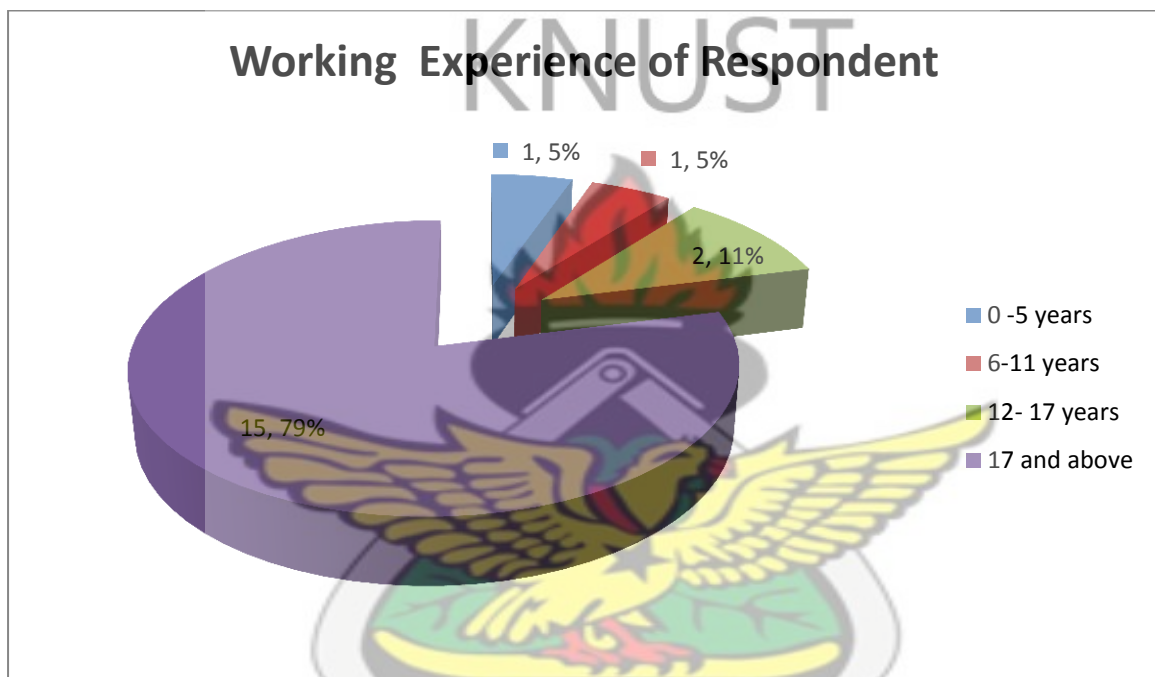


From the above chart it can be observed that the response rate of the questionnaire is good. The Private sector in the survey included five randomly selected contractors and five purposively selected banks that will represent the concept of the financier and the builder.

## 4.2 SECTION ONE OF THE QUESTIONNAIRE

Section one of the questionnaire relates to the general information of the respondent. This information's relevance can be said to play an influential role to know the depth of experience of the respondent and to also appreciate what value of information they have to offer though very subjective. Below is a graphical representation of experience blend of the respondent.

Figure 2- Questionnaire Distribution of Respondents



From the figure 4.2 above it can be seen that majority of respondent have working experience of more than seventeen years amounting to a total of fifteen respondents which gives a percentile of 79% of the total respondents. The next significant experience is that in the range of 12 years to seventeen years of experience. This group form eleven percent (11%) of the total. The experience between six (6) years to eleven (11) years as well as the experience up to five (5) both have one respondent each.

### 4.3 SECTION TWO OF THE QUESTIONNAIRE

This section of the questionnaire is sub-divided into four main parts. I would represent each question in the questionnaire with the analysis of the information as received from the respondent.

#### 4.3.1. PRIVATE SECTOR PARTICIPATION

*Que. 1. In your opinion has the private sector contributed to the development of road Infrastructure in urban Areas such as the Accra Metropolitan Assembly?*

Figure 3 Private Sector Participation



From the above figure it can be seen that 58 per cent of respondents agree that the private sector has actually contributed to the development of road infrastructure in the Area of study. Practically no respondent was of the view that the private sector had done nothing in terms of delivery of roads in the urban areas and in particular reference to the Accra Metropolitan Assembly the Area of study. The government of Ghana has recognised the need for

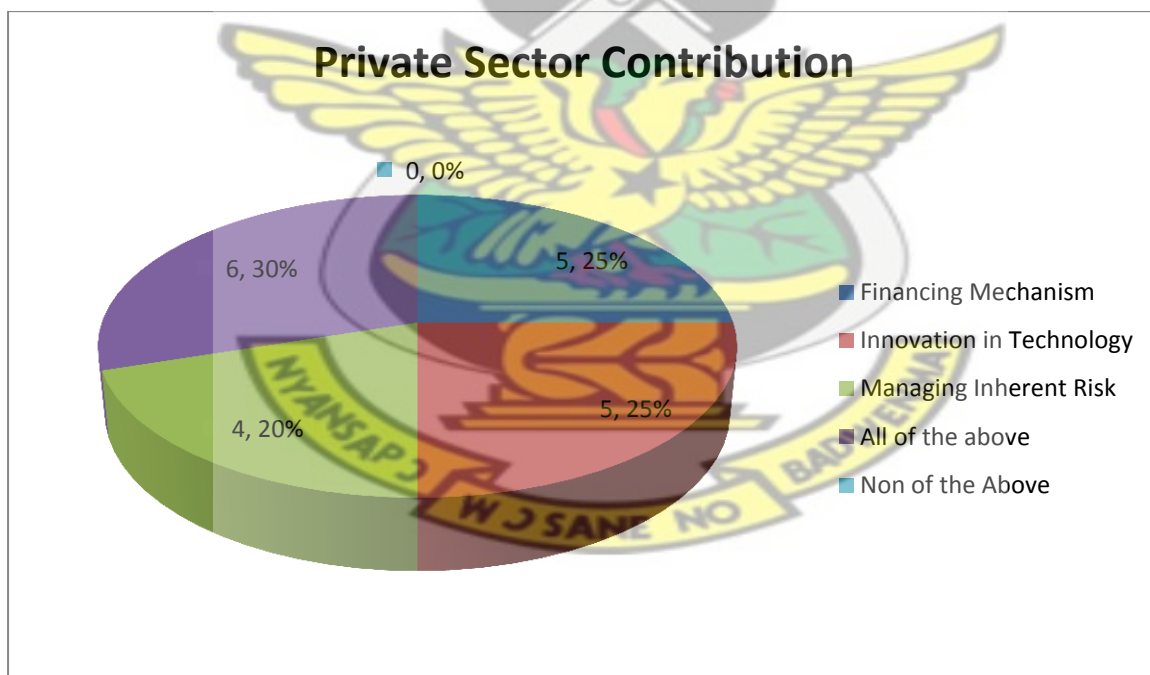


maximum private sector contribution in the delivery of infrastructure (Ghana National Development Planning Commission, 2013). But the issue then is what the private sector has contributed to this development.

*Que.2. What has the private sector contributed to Road Infrastructure Development in Accra Metropolitan Assembly?*

From the response of the questionnaire it was observed that the contribution of the private sector is not exhaustive of the options listed in the questionnaire. Below is the summary of responses received:

**Figure 4 Contribution of the Private Sector to Infrastructure Development**



From the above summary it can be observed that the distribution of the various contributions of the private sector was closely distributed. 25% of respondents agreed that Financing

Mechanism and Introduction of innovative technology is the contribution of the private sector.

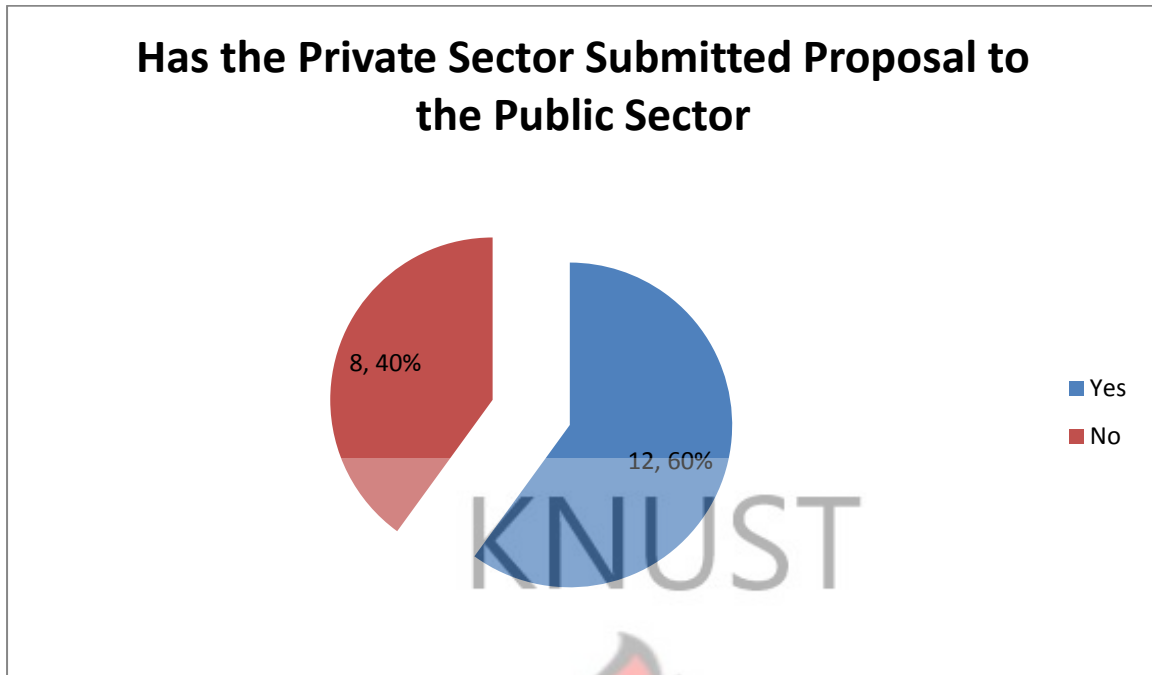
20% agree that managing inherent risk was the contribution of the private sector, while 30% of the respondent agreed that the private sector has contributed to the development of road infrastructure by the introduction of financing mechanism, managing inherent risk and introduction of innovative technology.

As expected none of the respondents agreed to the assertion that the private sector might have contributed nothing to road development. This is very factual as the private sector has always partnered the public sector to drive development but in very different ways and modes.

*Que. 3 Has the private sector drafted a proposal for Public (Government) endorsement and the need of private sector participation in the area of Road Development in any Urban Area of Ghana?*

This is a closed ended question which required a yes or a no answer from the respondent. The main aim of this question was to identify what the private sector has given to the public sector to contribute to development. By way of solicited or unsolicited proposals sent to the public sector. Below is the distribution of the respondent response

Figure 5 Submission of Proposal by the Private Sector for Public Sector Consideration



From the above figure it can be observed that sixty percent of respondent agree that the private sector have submitted some proposals to the public sector. Forty percent of respondent have agreed that proposal have not been sent to the public sector. The proportion of respondent who have agreed to the question shows that in fact the private sector have made some suggestions to support the public in the delivery of infrastructural. The next question I asked following this affirmation is the details of the proposal submitted by the private sector.

Two projects have been mentioned which are the construction of the Interchange at the Kwame Nkrumah Circle and the construction of a Fly over the Accra-Tema Motorway. The issue about these two projects whether or not these projects were procured as a result of solicited proposal from the government. Whether or not the process of selecting the contractor was open, that is to say transparent or not, whether or not it satisfied the value for money analysis. Getting these particular answers from the managers of these projects was not successful.

*Que. 5. What in your opinion is the most useful asset that the private sector can share with the Public (Government) in the development of road infrastructure?*

This is an open ended question, the main purpose of this question is to tap inform the experience of the respondent. The table below gives the distribution of the responses received:

**Table 1 Useful Asset to be shared by the Private Sector**

<b>Most Useful Asset Shared By The Private</b>	<b>Number of Respondents</b>	<b>Percentage</b>
Managing Risk in Partnership	4	20%
Financing	15	75%
No Comments	1	5%



#### 4.3.2. GOVERNMENT PARTICIPATION

*Que.6. In your opinion has the Government contributed to the Development of Road Infrastructure in Urban Areas such as Accra Metropolitan Assembly?*

The purpose of this question is to compare answers received from the same questioned posed to the private sector. Below is a representation of responses received.

**Figure 6 Public Sector Contribution to Road Development**



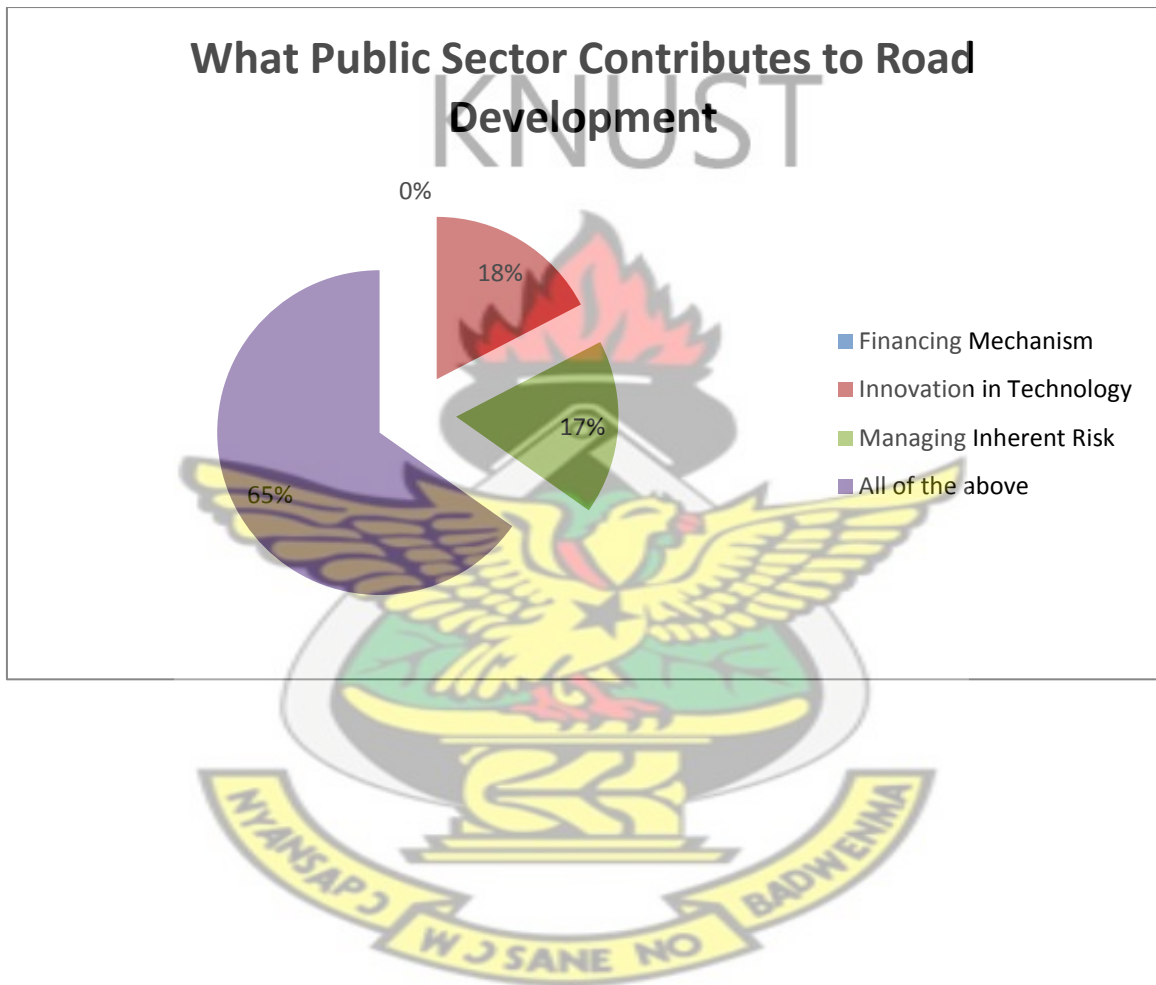
From the figure above it can be seen that can be seen that hundred per cent (100%) of respondents agree to the assertion that the public sector represented by the government has contributed to the provision of roads. Comparing this result with the result of question one (1), it can be deduced that there is no dispute about public sector contribution to road development, whereas the contribution of the private sector is in the balance.



*Que.7. What has the Government contributed to road infrastructure development?*

This question was to identify some of the notable and important contribution of the public sector to road construction. Below is a graphical distribution of the respondents of the questionnaire.

**Figure 7 What Public Sector Contributes to Road Development**



*Que. 8. Has the Government brought forward a proposal for private sector endorsement and the need for private sector partnership in the area of road development in any Urban Areas of Ghana?*

This question had the idea for identify proposals developed by the government to encourage development of roads. Apart from the Public Private Policy Drafted by the Ghana government to aid in the development of all PPP projects in all sectors of the economy. The table below shows the distribution of responses received:

**Figure 8 Proposals Submitted by the Public to the Development of Road Infrastructure**



The figure above gives an answer which is obvious and at the same time true. The public sector has not made public and proposal that give a clear guideline for the development of road

*Que.9 Please give a brief details on the proposal submitted?*

95% of the respondents say there is specific proposal to encourage the development road infrastructure. One respondent who agreed that the government proposal was the construction of a flyover the Accra-Tema Motorway. Research into the project reveals that the proposal were unsolicited. It can therefore not be classified as a government proposal.

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*Que.10 What in your opinion is the most useful asset that the Government can share or provide with the private sector in the Development of Road Infrastructure?*

This opened ended question attracted varying response from the respondents. The table below shows the distribution of response received.

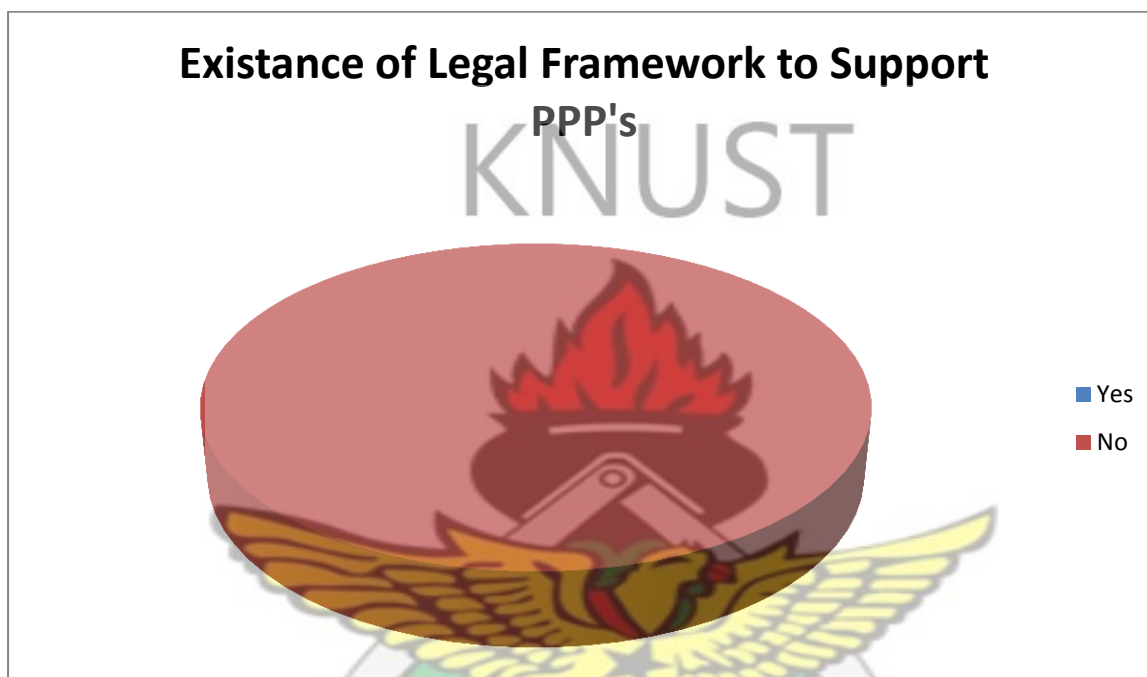
**Table 2 Government Contribution to Road Development in Ghana**

What Government can Share with the Private Investor	Number of Suggestions	Percentage
Security of Private Investment	20	57%
Land	15	43%

### 4.3.3. LEGAL FRAMEWORK

*Que.11. Are you aware of laws in Ghana to protect partnerships and in particular reference to PPP ventures?*

This question was to bring to the fore if there was a legal framework that is regulation the infrastructure development based on PPP models. This was a closed ended question with the response shown below;



The distribution above clearly shows that currently in Ghana there is no law which support or specifically protect PPP engagements. What this means is that existing laws would be used to resolve any problem that may arise with the transactions.

*Que.12. What Law has been promulgated to facilitate PPP partnerships in Ghana?*

Clearly from the response to the above question it is evident that there is no law is in existence. This means is that no special law has been passed to regulate the PPP initiatives in Ghana, the existing laws of the country hold until such a PPP law is passed.

*Que.13 Has the Law benefited PPP project transactions?*

*Que.14 Is the law adequate to protect the interest of both parties?*

Because no law has been identified as being in existence questions 13 & 14 were not answered.

#### **4.3.4. PPP PROJECTS**

*Que.15. Do you know of any PPP projects undertaken in the last 5 years?*

This is a leading question to probe into the identification of PPP projects in the Accra Metro Assembly. Below is the summary of the response received from respondents to this question.



From the response above figure it can be seen that much knowledge is not known about PPP projects.

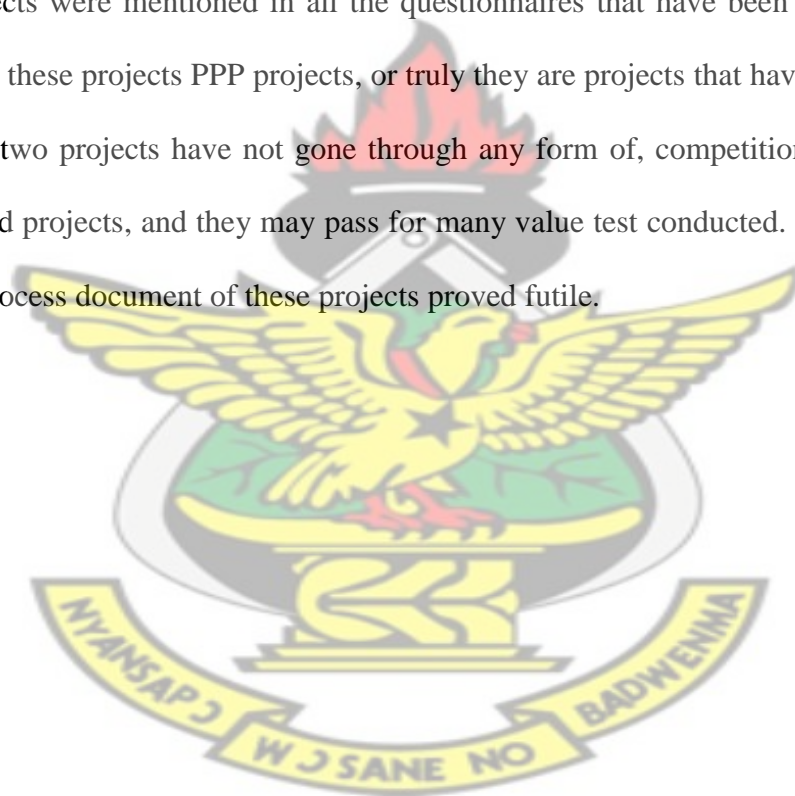


*Que.16. Please list a maximum of five (5) PPP projects in the last five years?*

This question was intended to identify if any project has been executed in the last five. At least five projects within the Accra metropolitan Assembly Area. The Following projects were mentioned:

‘Construction of flyover and vehicular Interchange over the Accra-Tema Motorway at Teshie and Design and Construction of Kwame Nkrumah Circle Interchange in Accra’.

Only two projects were mentioned in all the questionnaires that have been distributed. The issue is that are these projects PPP projects, or truly they are projects that have taken the form of PPP. These two projects have not gone through any form of, competition, these projects were unsolicited projects, and they may pass for many value test conducted. Attempt to view procurement process document of these projects proved futile.



*Que.17& 18. Do you know of any failed PPP projects in the last 5 years?*

There was no record or mention of any failed PPP's mentioned in any response received.

Below is the graphical distribution. The figure below gives the indication that there is no knowledge of PPP projects in Ghana.

**Figure 9 Failed PPP Projects**



## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATIONS

#### 5.1 CONCLUSION

The main aim of this project is 'to investigate why private sector has not partnered with government to provide roads in urban cities in Ghana' case study being the Accra Metropolitan Assembly. The objectives outlines in the first part of the document would be examined in comparison with the data gathered from the distribution of the literature review in this chapter.

From the study conducted it was observed that, the private sector has contributed immensely to the provision of road infrastructure in Ghana. The private sector has contributed finance, technical expertise in the construction of numerous roads in several urban areas. The contribution of the private sector is in the decline due to the fact that roads in the urban area are unable to directly pay back the construction cost of these projects. Private investment in road infrastructure is not as significant as would be expected because investment risk in roads keeps increasing due to unavailable repayment mechanisms. Public sector inability to pay realistic tolls makes it the more difficult for the existence of repayment mechanism.

Political Interference makes it difficult to use economic theories to determine what is to be paid to allow for sustainable partnership with the private sector. Once the private sector is not assured of their capital recovery with reasonable profit it make private financing most difficult.

## 5.2 RECOMMENDATIONS

- The contribution of the private sector to the provision of road for national development is very crucial, it is recommended that the private sector amalgamate to form strong consortium to deeply look into financing option of not taking road tolls but the urban area(Assembly Authorities) introducing a levy for road development to be paid periodically. This would go to support a fund which would be used to finance road development projects. Public sector clearly is unable steadily to finance infrastructure project.
- Public sector should ensure that the legal framework which would regulate PPP initiatives are put in place. This is to say PPP laws should be promulgated as soon possible. This would enhance investor confidence and ensure security of investment due to the availability of PPP specific laws.
- Because in Ghana traffic volumes are not significantly high, PPP road projects in urban areas are not likely to pay for themselves through road tolls. PPP initiatives will only be viable when public sector agree to augment revenue shortfalls. This will encourage private participation in road development.
- Public sector should put a team of experts to develop specific project proposals for public advertisement. This would reduce the frequency of unsolicited proposal thereby allowing transparency and ensuring value for money all infrastructure projects commissioned.
- Middle and top management officials of the Agencies of the ministry of roads and highways should be trained in PPP project management. This would enhance the use of technical and managerial skills in the operation and management of PPP projects.

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## Appendices

### Typical Questionnaire Distributed

1 October 2013

Kwame Nkrumah University of Science and Technology  
College Architecture and Planning  
Department of Building Technology  
Kumasi.

Dear Sir/Madam,

#### **Re: Dissertation – MSc Construction Management**

I am currently undertaking a Master of Science Degree in Construction Management at Kwame Nkrumah University of Science and Technology, Kumasi. In fulfilment of this dissertation, I am required to research a topic area and produce a dissertation. The topic I have chosen is **'Investigation into the Role of Public Private Partnership (PPP) in the Provision of Urban Area Road Networks for Accelerated Development in Ghana'**.

The aim of the study is to **'Investigate the reasons why private sector has not partnered government in the construction of roads in sprawling urban cities in Ghana'**.

I would be very grateful if you could complete the attached questionnaire. The information provided will be treated with strict confidence and individual firms will not be identified. Equally, a copy of the summary report will be available to the co-operating firms upon request.

Yours faithfully,

**Afetsi Avege**  
**(Student)**

## POSTGRADUATE DISSERTATION QUESTIONNAIRE

### Instructions for the questionnaire:

**This questionnaire consists of 2 sections.**

Please read each question carefully and complete them all. It should take you no more than 10 minutes to complete.

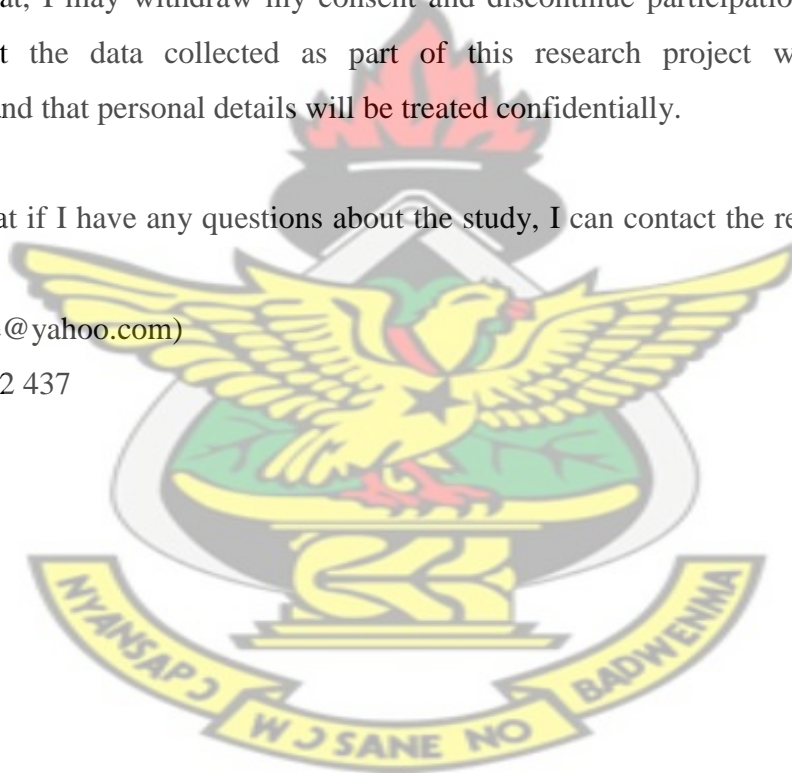
By completing the questionnaire, I understand that I have given my consent to participate in the research study.

I understand that, I may withdraw my consent and discontinue participation at any time. I understand that the data collected as part of this research project will be reported anonymously, and that personal details will be treated confidentially.

I understand that if I have any questions about the study, I can contact the researcher, Afetsi Avege

Email - (aavege@yahoo.com)

Tel: 0262 802 437



PLEASE TICK (✓) WHERE APPROPRIATE

\* Copy tick and paste where appropriate

SECTION 1: QUESTIONS RELATED TO GENERAL INFORMATION ABOUT THE RESPONDENTS

Organisation	
Position Held	
Years of experience in construction	

**Private Sector Participation**

1. In your opinion has the private sector contributed to the Development of Road Infrastructure in urban areas such as Accra Metropolitan Assembly?

c) Yes ☐

d) No ☐

If you answer 'Yes' please go to Que.2. If your answer is 'No' go to Que. 3

2. What has the private sector contributed to Road Infrastructure Development in Accra Metropolitan Assembly?

6. Financing Mechanism

7. Innovation in Technology

8. Managing Inherent Risk

9. All of the above

10. None of the above


3. Has the private sector drafted a proposal for Public (Government) endorsement and the need of private sector participation in the area of Road Development in any Urban Area of Ghana?

c) Yes ☐

d) No ☐

If you answer 'Yes' please go to Que.4. If your answer is 'No' go to Que. 5

4. Please give a brief details on the proposal submitted?

d) Name of Project/Proposal:.....

e) Project Location:.....

f) Status of implementation:.....

5. What in your opinion is the most useful asset that the private sector can share with the Public (Government) in the development of road infrastructure?

.....  
.....  
.....

### Government Participation

6. In your opinion has the Government contributed to the Development of Road Infrastructure in Urban Areas such as Accra Metropolitan Assembly?

c) Yes ☐

d) No ☐

If you answer 'Yes' please go to Que.7. If your answer is 'No' go to Que. 8

7. What has the Government contributed to road infrastructure development?

6. Security of Private Investment

7. Establishment of PPP control Unit

8. Land for Road Development.

9. All of the above

10. None of the above


8. Has the Government brought forward a proposal for private sector endorsement and the need for private sector partnership in the area of road development in any Urban Areas of Ghana?

c) Yes ☐

d) No ☐

9. Please give a brief details on the proposal submitted?

d) Name of Project/Proposal:.....



e) Project Location:.....

f) Status of Implementation:.....

10. What in your opinion is the most useful asset that the Government can share or provide with the private sector in the Development of Road Infrastructure?

.....

.....

.....

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### Legal Framework

11. Are you aware of laws in Ghana to protect partnerships and in particular reference to PPP ventures?

c) Yes ☐

d) No ☐

If yes answer question 12 if no, please answer question 13.

12. What Law has been promulgated to facilitate PPP partnerships in Ghana?

.....

13. Has the Law benefited PPP project transactions?

c) Yes ☐

d) No ☐

14. Is the law adequate to protect the interest of both parties?

c) Yes ☐

d) No ☐

## PPP projects

15. Do you know of any PPP projects undertaken in the last 5 years

c) Yes ☐

d) No ☐

If yes, please answer question 16 and if No, please answer question 17.

16. Please list a maximum of five (5) PPP projects in the last five years?

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

17. Do you know of any failed PPP projects in the last 5 years?

c) Yes ☐

d) No ☐

If yes, please answer question 18

18. Please list a maximum of five (5) PPP projects in the last five years.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

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