

FINANCING TRANSPORT INFRASTRUCTURE THROUGH PPP IN GHANA: CONTEMPORARY ISSUES AND MACRO ECONOMIC FOUNDAMENTALS

EDMOND OPPONG-PEPRAH, CLINTON OHIS AIGBAVBOAH and THWALA W. D.

*^{1,2,3} Department of Construction Management and Quantity Surveying, University of
Johannesburg, South Africa.*

Infrastructure financing has been a bane to developing economies over the period. This can be seen in the infrastructure deficit as reflected in most developing countries such as Ghana, for instance the Ministry of Finance and Economic Planning, Ghana (2015), puts the annual infrastructure deficit at \$1.5billion. One major model expected to have corrected the deficit in infrastructure financing is the PPP model; however this has not happened. The objective of the study was to unearth the major weaknesses against the PPP in its implementation in Ghana and to come out with suggested remedies. The study uses exploratory qualitative method to diagnose the challenges. Ghana's PPP Policy framework and how it operates was also assessed. The study revealed several challenges, however the prominent one being the unstable macroeconomic fundamentals. The study made recommendations, amongst them was the suggestion to adopt pragmatic steps to grow the economy giving prominence to key sectors such as the agriculture. Again recommendations emphasized on the need to deliberately evolve a fiscal policy capable of augmenting and urging Commercial Banks efforts to lower lending rates so as to improve access to finance to the private sector. If the required funds can be secured to meet national infrastructure objectives it is imperative that the private sector can come in to support infrastructure provision. Thus, PPP becomes a viable alternative. The objective of the study was achieved in that it answered the question why Ghana has not been able to attract the requisite PPP to support the transport infrastructure, and proffered lasting recommendations to enhance the attraction of more funding through PPP.

Keywords: weaknesses, financing, macroeconomic fundamentals,
framework, infrastructure,

INTRODUCTION

PPP's are defined as a public procurement policy arguing a greater value for money for all partners who have different objectives, interest as well as risk preferences (Chung,2012,; a Macario et al 2015). The Ghana Public Private Partnership Framework (2011), considers PPP as a contractual arrangement between a public entity and a private sector party with clear arrangement on shared objectives for the provision of public infrastructure and the services traditionally provided by the public sector. PPP in general is a contractual agreement (Dominques, 2014), of shared risk and benefits, regulated by a strong institutional framework (Percoco, 2014).

Over the last decades countries have been investigating and promoting various infrastructure finance models in an attempt to establish and to demonstrate the need for a faster, more efficient and flexible alternatives (Walsh, 2008,; Gutman 2015), in the implementation of infrastructure projects. Governments have used PPP's to manage complex operations in public investments through the adoption of legal frameworks and other institutional processes to achieved some success (KPMG, 2010). Ghana developed a PPP guideline in 2004, came out with the Policy framework in 20011, followed by the PPP Bill in 2013 in an attempt to cash in on the benefits of the model. Several models of financing does exist to finance infrastructure (Acharya, 2014,; Pokoma,O. and Mocknad D. 2001,;Pagano, 2008, Matromarco, 2004), however the PPP model did evolve, as budget constraints increased the push for more private sector participation (Chan et al 2009,; Cheung et al, 2009) in the quest for a more innovative form of infrastructure financing (Briscoe,2015).

Though the Public Private Partnership Model has been hailed as one of the surest methods of financing infrastructure in both developed and developing countries,; indications are clear that this expectation has not been met (Mario at al 201,; Pretorius et al, 2012).

This is mainly due to challenges faced in implementation such as transparency issues, regulatory environment etc. Though the above is so, a key characteristic of the PPP of fundamental importance is the added value of synergy, i.e. being able to develop a product with characteristics that would not have been available without PPP. Co-operation, however, implies an increase in the number of participants. Also, in partnerships, the actors are usually dependent upon each other. These two basic conditions create problems (see, for example, Emerson, 1962; Scharpf, 1978; Rogers and Whetten, 1992; Klijn and Teisman, 2000) as quoted by Macario et al, 2015.

PPP has different forms, and conditions attached, per the World Bank (2004) classifications. PPP types as exist in Ghana have been captured by Amoah-Gyateng (2015) using roads, per World Bank (2004) classifications of contract structures, and guidelines (World Bank, 2009);

Concessions arrangement; a private investor assumes control of the management of a publicly owned road for a stated period. It also assumes investment risk. The World Bank (2004) further classifies "Concessions"

- a. Rehabilitate-Operate-Transfer (ROT)
- b. Rehabilitate-Lease-Transfer (RLT)
- c. Build-Operate-Transfer (BOT)

Greenfield Projects: This is an arrangement under which a private equity, wholly or in conjunction with the state, constitutes a special purpose vehicle which builds and operates a new road for a period as specified in the contract. At the end of the period, the road becomes fully state owned. A further classification of Greenfield projects as given by the World Bank (2004) includes:

- a. Build-Lease-Own (BLO)
- b. Build-Own-Operate-Transfer (BOOT)
- c. Build-Own-Operate (BOO)

Management and Lease Contracts: This is the type of contract in which a private firm is given management of state-owned stretch of road for a given period of time. The private firm does not own the infrastructure and it does not make investment and financial decisions.

Divestitures: In this instance, the private entity purchases a stake in a toll road that has been offered on privatization program or in a public offering (Amoah Gyaten, 2015)

The expectations of Ghana's PPP have been aptly put, thus, "PPP emerged with the official justification of shortage of investment capacity mostly due to the budgetary constraints in the context of increased service quality requirements. The expectation was that compared to traditional procurement models, PPP's would hopefully allow for improved quality, effectiveness and greater efficiency experience in road, rail, air and maritime sectors development by taking advantage of private management experiences, competitive pressure in the allocation of contracts and transference of most of the investments risk to the private sector" (Macario 2015)

Thus, the objective of PPP in Ghana was to enhance the value of money in infrastructure delivery among others, this has been broken down in objectives contained in the policy stated below:

Objective of Ghana's PPP Frame work

Ghana's PPP frame work was developed to give a backing to the implementation of the model within the country. It was to provide access to the efficient provision of infrastructure to meet public needs. Some of the key objectives underpinning Ghana's PPP framework are as follows;

- a. To leverage public assets and funds by private resources form local and international markets to accelerate needed investments in infrastructure services.
- b. To encourage and facilitate investments by the private sector by creating an enabling environment for PPP's when value for money for government can be clearly demonstrated
- c. To increase the availability of public infrastructure and services and improve service quality and efficiency of projects
- d. To ensure the attainment of required and acceptable local and international social and environmental standards
- e. Provide a framework for developing efficient risk sharing mechanism
- f. Protect the interest of all stakeholders including end users, affected people, government and private sector
- g. Encourage and promote indigenous Ghanaian private sector participation in the delivery of public infrastructure and services.

The assumption of the policy was that it should provide the frame work for the operationalization of PPP agreements in Ghana. The point of focus was that private partners should be attracted to partner the public sector in infrastructure development. The ultimate outcome was to lead to the attainment of the above objectives.

Some of the benefits to be attained through an increased PPP experience per Ghana's PPP Police Frame work are as follows:

1. Accelerated delivery of needed infrastructure and public services on time and within budget
2. Encourage the private sector to provide innovative design, technology and financing structure
3. Increased international and domestic investments
4. Risk sharing by government with private sector partners
5. Ensure good quality public services and wider availability

Guiding Principles of PPP in Ghana

Before these benefits can accrue through the use of the PPP framework some guiding principles that were supposed to be observed included value for money of projects implemented, risk allocation between the government and the public sector, the adequate provision of local content, as well as the transfer of technology to locals. The guiding principles also have key elements such as safe guarding public interest and social safeguarding, and lastly providing environmental, climatic and social safe guarding, amongst others.

WEAKNESSES TO PPP IMPLEMENTATION

With the above provisions, it would have been expected that PPP's would have attracted finance to transport infrastructure in droves, however this has not been the case. The PPP concept has encountered several challenges; some of them are enumerated below:

1. **Inadequate legal framework:** PPP represents a shared responsibility towards financing infrastructure between government and the private sector. It again represents a process of shared benefits. Therefore for PPP to be effective there is the need for adequate legal framework that would ensure that the private partner is guaranteed of returns and earnings on investments (Zverev, 2012). Adequate legal frame work is often lacking in developing countries, this often makes the private sector skeptical. For instance land acquisition in Ghana is still in the hands of chiefs and families, there is no guarantee that lands provided for PPPs are indeed secured. Key institutional roles and responsibilities are critical (Percoco, 2014), and should be maintained. It requires that procuring authorities, Public-Private Partnerships Units, the Central Budget Authority, the Audit Institution and sector regulators are entrusted with clear mandates and sufficient resources to ensure a prudent procurement process. Hence, the need to establish a clear, predictable and legitimate institutional framework supported by competent and well-resourced authorities (OECD, 2012). The policy framework does not provide enough legal guarantees; hence there is the need for Ghana to develop a proper legal document to provide safe guards.
2. **Slowed economic performance:** The PPP model often work efficiently where the economies are experiencing considerable growth (Tehran, 2012). Low macroeconomic performances could impact negatively on investor confidence. Investors are keen on macroeconomic fundamentals such as debt ratio, inflation, lending rate and exchange rates as indicators of economic health of the country. In recent times GDP growth in Ghana has slowed from 8% to 3.9% in 2015 (2016 Budget Statement of Ghana). Lending rates as well have continued to maintain a height of an average of 30% per annum over the last two years; likewise the debt burden has ballooned to 70% of GDP. These indicators cumulatively have worsened investor confidence in PPP's in Ghana. Indeed, Tehran (2012), lays emphasis on contagion effects of domestic/regional economic and political environment being a key factor to PPP success.
3. **High and excessive cost of private finance:** Private finance is an imperative to enable the private sector engage in PPP's. Interest rates (lending interest rate) are very high in Ghana averaging 30% per annum. It therefore becomes quite expensive for the private sector to borrow (Bawumia, 2014). Again financial markets are not well developed; therefore access to finance is relatively limited. The continued depreciation of the cedi against the major currencies also serves as a cost to investments. The cost to capital becomes high as depreciation eats away the real value of the local currency. Citing the Indian example to demonstrate that financial constraints -“The private sector depends on commercial banks and equity markets to

raise financing for PPP projects. These projects are capital-intensive in nature and have a long gestation period. With commercial banks reaching sectoral exposure limits, and large Indian infrastructure companies being highly leveraged, funding for PPP projects is becoming difficult. Equity markets are also not favorable for financing projects because of uncertainties in the global economy and due to long regulatory requirements that limit exit options” (Ernst and Young, 2003)

4. Lack of transparency and accountability: the procurement process has been known to be flouted by a lot of corruption, cronyism and nepotism. Corruption is known to reduce investments in public services and undermine social welfare which eventually erodes the quality of life and slows the development process (Busler, 2016). This has compromise the quality of service delivery in PPP ventures in Ghana. Hence the issue of transparency has become a torment as far as the success of PPP deliverables is concerned. The role of strong institutions can not be underestimated in order to ensure that regulations are followed (Esfahani, 2003), to prosecute public infrastructure agenda, through transparency and accountability of operatives.
5. Conducive regulatory environment: This is necessary to ensure the success of PPP deliverables. Though Ghana has a PPP policy framework, a regulatory environment spearheaded by a public regulator has been almost absent. Ghana is not alone, it is reported that many countries have now become aware that they need a PPP law in addition to a concession law (Zverev, 2012). Most of the new laws refer to all types of PPPs including, but not limited to concessions. Even in the very few cases where the new law is limited to traditional concessions and the Build Operate Transfer (BOT) form of PPP, they are said to be in the drafting of a larger PPP law under consideration. Thus, a situation has been created where there is misallocation of risk and erroneous forecast of demand often leading to uninhibited optimistic biases (Macario et al 2015).

OBJECTIVE OF THE PAPER

1. To identify the major pitfalls to PPP implementation using Ghana’s PPP Policy Framework.
2. To establish the role of macroeconomic fundamentals in attracting PPPs in Ghana
3. To proffer recommendation for a successful and appreciable increase in PPP delivery.

METHODOLOGY

The research was exploratory in nature and takes an in-depth look at the PPP model as operative in Ghana to identify inherent weaknesses. A diagnostic study was made of the policy frame work of PPP in Ghana using qualitative desk study. An examination was made between economic fundamentals and its effects on PPP services and deliverables using relevant material. At the end of the day the study identifies the key weaknesses that are militating against the smooth implementation of the PPP in Ghana. Essentially, secondary data was used throughout the study.

FINDINGS AND DISCUSSIONS

The findings were in consonance with the study objectives, that is, it established the major weaknesses that militate against PPP implementation and delivery in Ghana. The first major determinant was macroeconomic fundamentals of the country. The study revealed that the present economic situation of the country made PPP more expensive to both the public sector and the private, that is, though it is supposed to be risk sharing the risk became too high. This could be the main contributory factor why PPP's have not been forthcoming in Ghana.

The major macroeconomic indicators were GDP growth of Ghana, the debt burden, interest rates, and foreign exchange volatility, determining the economic health of the state with a potential effect on PPP (Kusi 2016,; Bawumia 2014).

The study established that a major determinant of Government's ability to attract PPP is the rate of growth of GDP. Over the last four to six years GDP growth in Ghana has slowed from an average of 8% to its present of 3.9% (Government of Ghana 2016). This is a major demonstration that, not all is well with the economy. This has further served to weaken investor confidence and scare away potential investors from possible PPP's. The study further revealed that the debt burden in Ghana has increased over the years arriving at its present state of 70% of GDP (Kontoh, 2016). This has become very worrying in the sense that investors have become sceptical about government's capacity to service the debt. PPPs will further aggravate the situation and worsen the debt burden. This has become a real threat, leading to loss of credibility. Incidentally that was one of the primary reasons why Government of Ghana went to the IMF in 2015, to seek a loan of \$ 960,000,000.00 and to seek policy credibility in order to attract more investments into the country (State of the Nations Address, 2016).

Another macroeconomic fundamental established to be a major determinant of economic health was the rate at which banks lend to the private sector. The lending rate in Ghana is presently at an average rate of 30% per annum. At this rate the private sector is constrained to obtain credit from local commercial banks. This is because the cost of borrowing becomes too high. Local investors are not encouraged to enter into PPP with government simply because the cost of borrowing has become too high (Osei-Fosu, 2015).

Lastly the exchange rate became a major factor because the local currency continued to fall against the major currency such as the dollar as the cedi weakens (Bawumia, 2014). The cost of infrastructure projects becomes almost too high to both the government and the private sector. Government become reluctant in going into PPP's because it will be paying more for the amount invested in PPP ventures, due to the weakened currency. Indeed Ghana's ballooning external debt is partially as a result of the continuous depreciation of the Cedi against the dollar. This further increase government/public debt burden unduly. Likewise private entities find it more expensive seeking credit to partner public entities into PPP's as their risk to credit appreciates exorbitantly.

What measures can be adopted to improve the macroeconomic fundamentals in order to encourage substantive and sustainable PPPs?

In this regard, the study revealed that strenuous efforts needed to be made to grow the economy appreciably (Osei-Fosu et al, 2015). One method is to cut down on government borrowing so as to reduce the debt burden. This will have the effect of freeing more resources that can be used to partner the private sector in PPP's. Again, making a conscious effort to reduce the debt to GDP ratio will increase credibility of the nation in the eyes of rating agencies; it will further enhance the economic viability of the state and hence encourage investor confidence (Bawumia 2014).

For successful implementation and delivery of PPP's, among macroeconomic fundamentals, GDP must be growing at an acceptable rate, (Kusi 2016) with satisfactory

growth in key sectors. Among others there should be satisfactory balance of payments, acceptable debt ratio, stable interest rates as well as stable exchange rates (Tehran, 2012). This will require both economic will and political prudence. The government's commitment with the Bank of Ghana must endeavour to pursue prudent economic policies to reduce the prime interest rate amongst. This will have the effect of encouraging the Commercial Banks to reduce their lending rates to free resources, and encourage the private sector to seek credit from the Commercial Banks to go into PPP's. Lastly, Government is encouraged to grow key sectors of the economy such as the agriculture sector. The sector which is a major employer and income distributor in the Ghanaian economy has fallen over the last six years and grew by only 0.4% in 2015 (Government of Ghana, 2016 Budget Statement). Again growing the agriculture sector is expected to increase agriculture commodity exports and to earn more foreign exchange. It is also expected to boost the capacity of agro processing industries, and reduce imports leading to savings in foreign currency. The continues fall in the value of the local currency can then be arrested. These mitigating measures shall provide the impetus for accelerated growth culminating in an improved investor confidence in the economy.

CONCLUSION

The study explored into challenges of the PPP in implementation taking into consideration the key objectives of the PPP policy framework in Ghana. Though the study reviewed several challenges of the PPP model as operative in Ghana presently, the slowdown of the economy and its macroeconomic fundamentals was discovered to be the major barrier of all. Of the macroeconomic fundamentals the key ones found to influence PPP so much were the GDP growth rate as a slowed down rate over a period implied a down turn in the economic health of the state and hence a lost in investor confidence. The lending rate of the commercial banks was discovered to constrict the flow of capital to the private sector and therefore hindered its ability to partner the public sector in PPP. Whiles excessive borrowing by the government made the private sector and investor's cautious in entering any agreement with government. Yet again excessive borrowing also restricted government's ability to enter into more PPP ventures.

Fundamental measures to arrest the situation included the growing of the economy to sustain the fundamentals and the deliberate effort to maintain a fiscal policy that will reduce the lending rates to acceptable levels. Key sectors such as agriculture needed to be targeted to serve as impetus to the other sectors and to sustain growth. It was envisaged that if policy measures are affected to that extend, the economic fundamentals will be resuscitated at the end of the day leading to the successful improvements in PPP models in Ghana.

It is concluded that the PPP could still be a very viable alternative (Tsamboulas, et al, 2013), however challenges need to be mitigated to create the right environment for PPP to thrive.

REFERENCES

- Acharya V. and Sundaresan A *Model of Infrastructure Financing (unpublished)*, 2014.
- Aho-Pynttari, Marja *Best Practices in transport infrastructure financing BSRP Transport Cluster report-* The Baltic of Institute of Finland, 2013.
- Amoah-Gyarteng Kakari, *Benefits of a Project Finance Approach to Infrastructure Development Ghana: The Need to Adopt a Public Private Partnership Model*. Research in World Economy Volume 6. (online Journal www.sciedu.ca/rwe), 2015.
- Briscoe, John 'The Changing Face of Water Infrastructure Financing in Developing Countries' *International Journal of Water Resources Development*, 15:3, 301-308, DOI: 10.1080/07900629948826, 1999.
- Busler, M. *The Role of Properly Structured Public Private Partnership in Economic Development*. Stockholm Galloway, USA, 2016.
- Chan, A. P., Lam, P. T., Chan, D. W., Cheung, E., & Ke, Y. *Drivers for adopting public private partnerships — empirical comparison between China and Hong Kong special administrative region*. *Journal of Construction Engineering and Management*, 135(11), 1115–1124, 2009
- Chan, A. P., Lam, P. T., Chan, D.W., Cheung, E., & Ke, Y. *Critical success factors for PPPs in infrastructure developments: Chinese perspective*. *Journal of Construction Engineering and Management*, 136(5), 484–494 2010.
- Cheung, E., & Chan, A. P. C. *Is BOT the best financing model to procure infrastructure projects? A case study of the Hong Kong-Zhuhai-Macau Bridge*. *Journal of Property Investment & Finance*, 27(3), 290–302, 2009
- Cheung, E., Chan, A. P. C., & Kajewski, S. *Reasons for implementing public private partnership projects: Perspectives from Hong Kong, Australian and British practitioners*. *Journal of Property Investment & Finance*, 27(1), 81–95, 2009.
- Chung, D., 2012. *Contractual Approach to Optimizing Risk Sharing: A Quantitative way of the Multidimensional Nature of Risk in Private Provision of Road Infrastructure*. Institute of Transport and Logistics Studies Business School, The University of Sydney, Australia
- Domingues, S., Zlatkovic, D., & Roumboutsos, A. . *Contractual flexibility in transport infrastructure PPP*. *European transport conference*, association for European transport Frankfurt am Main, Germany (29 September – 01 October 2014), 2014.
- Ernst and Young, *Public-Private Partnership: The next Continuum (unpublished)*, 2003
- Esfahani, H. and M. T. Ramires "Institutions, Infrastructure and Economic Growth." *Journal of Development Economics* 70: 443-477, 2003
- Foster V., Pushak N. 'Ghana's Infrastructure a Continental Perspective' African Region Sustainable Development Policy Research Working Paper 5600 World Bank, 2011.
- Government of Ghana, 'Private Participation in Infrastructure and Services for Better Public Service Delivery'. National Policy on PPP (MFEP), 2011
- Government of Ghana, *Budget Statement*, Ministry of Finance and Economic Planning, 2015
- Government of Ghana, *Budget Statement*, Ministry of Finance and Economic Planning, 2016
- Gutman, Jeffrey et al, *Financing African's Infrastructure, Can the World Deliver?* Global Economy and Development (Brookings), 2015
- Klijin, E-Hans, Teisman R.G, *Institutional and Strategic Barriers to Public –Private Partnership: An Analysis of Dutch case*. *Public Money and Management Journal*, 2003.
- Kontoh, Kofi Eric *Ghana's Debt Burden*, Ghana Web Business New 4th April 2016 (unpublished)
- Kusi Newman K. *Ghana; Recent Fiscal Challenges and Risk, What we Should Expect 2016*, GIMPA 2016 (unpublished)
- KPMG Corporate Finance Pty Ltd.: *Review of Barriers to Competition and Efficiency in the Procurement of PPP Projects*. Infrastructure Australia, 2010.
- Macario, Rosary et al, *Understanding pitfalls in the application of PPPs in Transport infrastructure in Portugal Superior Técnico*, University of Lisbon, Portugal Transport Policy 41 (2015)90–99. *Transport Policy Journal*, 2015. www.elsevier.com/
- Mahamudu, Bawumia, *Restoring the Value of the Cedi*, Lecture Series, Ghana, 2014, (unpublished)

- Mastromarco, C. and U. Woitek. "Public Infrastructure investment and efficiency in Italian Regions." www.cide.info/conf/papers/1161.pdf, 2004.
- OECD, *Recommendations of the Council on Principles for Public Governance of Public-Private Partnership*, 2012.
- Osei-Fosu, Baba Insha, A., Ofori-Boaten K., *Real Exchange Volatility and Foreign Direct Investments: The Ghanaian Experience*, Research Academy of Science, *International Journal of Empirical Finance Vol*, 4 2015
- Pagano A. M. and Perry D. *Financing Transport Infrastructure in the 21st Century City*, University of Illinois Chicago, Public Workers Sage Publications Mgt www.unescap.org, 2008.
- Percoco, Marco, *Quality of institutions and private participation in transport Infrastructure investment: Evidence from developing countries Department of Policy Analysis and Public Management and CERTeT, University Bocconi, Italy Transportation Research Part A* 70 (2014), 2014 50–58 journal homepage: www.elsevier.com/locate/tra
- Pokorna O. and Mocknad D., *Models of Financing and Available Financial Resources for Transport Infrastructure Projects* Czech Technical University Publishing House, 2001
- Pretorius, at al, *Private Public Partnership: Transaction Analysis and the Case of Urban Motorways* John Wiley and Sons Ltd, 2012.
- Tehran, Islamic Republic of Iran, *Principal Barriers/Constraints to Successful to Public-Private Partnerships*; High-level Expert Group Meeting on Infrastructure Public-Private Partnerships for Sustainable Development www.unescap.org/ttdw/ppp/index.html 2012 (unpublished)
- Tsamboulas, D. Verma, A., & Moraiti, *Transport infrastructure provision and operations: Why should governments choose private–public partnership?* *Research in Transportation Economics*, 38(1), 122–127, 2013
- World Bank. *Attracting investors to African public private partnerships: A project preparation guide*. Washington, DC: World Bank Publications, 2009.
- World Bank. . *Private participation in infrastructure (PPI), sector data snapshots, transport sector*. Washington, DC: World Bank. Retrieved from [www.http://ppi.worldbank.org/explore/ppi_exploreSector.aspx?sectorID=3](http://ppi.worldbank.org/explore/ppi_exploreSector.aspx?sectorID=3), 2014
- Walsh, Kim, *The use of financial models for Infrastructure Investment Planning*; IMFO, Official Journal of the Institute of Municipal Finance Officers Vol. 9,2008
- Zverev, Alex, *The Legal Framework for Public-Private Partnership (PPP's) and concessions in transition countries, Evolution and trend EBRD –Law in online transition* www.ebrd.com, 2012.