Public Private Partnerships (PPP) in the Developing World: Mitigating Financiers' Risks

Abstract:

A major challenge for foreign lenders in financing PPP infrastructure projects in an emerging market is the bankability of country-related risks. Despite existing studies on country risks in international project financing, perspectives of foreign financiers on bankability of country-specific risks in an emerging market is yet to be explored. Hence, using a mixed methodology approach to research, three PFI/PPP projects in Sub Saharan Africa (Nigeria) were used to investigate the bankability requirements for political risk, sponsor, concession and legal risks in PPP loan applications. Focus group discussions and loan documentations obtained from foreign project financiers with experience in PPP financing in Nigeria were used as sources of evidence. Results identified 22 bankability criteria for evaluating country-related risks (political risk, sponsor, concession and legal risks). These criteria were later put in a questionnaire survey to local and international project financiers with experiences in PPPs within Nigerian. Reliability analysis and significance index ranking were carried out. The significance index ranking helped ascertain the top 7 criteria influencing bankability of country-specific risks in emerging market PPPs. A conceptual "Risk and Bankability Framework" was then constructed from the findings and validated with new data from other PPP financiers in emerging markets. The proposed conceptual framework represents critical parameters for winning foreign financiers' approval for PPP loan applications from emerging market.

Keywords: Public Private Partnerships (PPP); Emerging Markets; Risks; Bankability, Foreign Financiers.

1.0 Introduction

Despite the huge record of project finance investments in emerging markets (EM) so far (Babatunde and Perera, 2017), financing infrastructures through Public Private Partnerships (PPP) remains risky for foreign lenders (Ameyaw and Chan, 2015). Studies such as Kayaga (2008) and Ameyaw and Chan (2015) have once attributed the associated risks to country-specific factors relating to the macroeconomic conditions of the project host nations. According to Atmo and Duffield (2014), out of all the current emerging markets (i.e. Brazil, India, Russia, Indonesia etc.); Sub Saharan Africa has a higher country-related risk perception. This situation has therefore hindered her capacity to attract sufficient foreign inflows for prosecuting her PPP infrastructure development ambitions (Briceño-Garmendia *et al*., 2008). Yet, with an estimated annual investment of $48billion finance gap required to meet current infrastructural deficit (Gutman and Chattopadhyay, 2015); PPP remains the only viable option for Sub Saharan Africa (Salawu and Fadhlin, 2015).

Several studies have argued that, foreign financiers' interested in African PPPs must pay attention towards, not only projects' commercial risks but the bankability of country-related risks (Al Khattab *et al.*, 2007; Busse, M. and Hefeker, 2007; Mills, 2010). According to Ncube (2010), bankability in PPP project financing is a big concern despite active roles of multilateral and bilateral agencies in Sub Saharan Africa. In many instances, risks associated with weak credit capacity to obtain foreign loan by indigenous sponsors usually give rise to sponsor risk (Mills, 2010). From foreign financiers' perspective, sponsor risk discourages lenders from financing or compels them to reduce the size of loan to invest in a project' (Mills, 2010). In addition, scenarios such as civil unrest, currency devaluation, leadership instability, weak legal framework for PPP etc. generate real threat of political risk in project financing (Bing *et al.*, 2005, Carrieri, *et al.*, 2006; Busse and Hefeker, 2007). According to

Kayaga (2008), expropriation and government repudiation of contracts seriously limited Africa's PPP growth, with 80% of PPP contracts attracting disputes and cancelled between 1990 and 2004. Such cancellations usually have sustained impact on a nation's PPP initiative by dampening market confidence in government's commitments (Ncube, 2010).

One of the fundamental aspect of PPP arrangements is full compliance with project's output specifications, performance contracts and concession termination clauses (Oyedele, 2013; Khadaroo, 2014). However, given the relatively weak PPP culture, institutional and regulatory frameworks in many Sub-Sahara African economies, failures of compliance may create threats of concession related risks. With huge lender's investments usually at stake in PPPs, contractual infractions and consequent statutory deductions will jeopardize foreign financiers' investments on the such projects. Other important risk factors may emerge in form of legal or regulatory risks. In most cases, such risk arises in situations where construction or operations of PPPs contravene domestic laws of host nations, or problems relating to approval and permits of projects (Sachs *et al*., 2007; Oyedele, 2013).

The overall consequence of these identified country-specific risk factors on foreign financiers' investments in sub-Saharan African PPPs can be quite damaging. As such, a framework for evaluating the bankability of country-related risks in PPPs within an emerging market context has been canvassed (Olsson, 2002; Atmo and Duffield, 2014; Giannetti and Ongena, 2012). Albeit, enormous literatures abound on risks in PFI/PPP generally (Bing *et al.,* 2005; Eaton *et al.,* 2006; Hoffman, 2008; Quiggin, 2004; Hardcastle *et al.*, 2005; Hammami *et al.,* 2006; Khadaroo, 2014). However, much of these studies have focused on projects in advanced economies like UK, Australia, Canada, US etc. (Demirag e*t al.,* 2011; Grimsey and Lewis, 2002; Bing *et al.,* 2005; Khadaroo, 2014). Although, few studies exist on

risks in PPP in some emerging economies i.e. China, Indian, Turkey etc. (; Quiggin, 2004; Chan *et al.,* 2014; Sachs, 2007; Giannetti and Ongena, 2012), there is currently no research exploring the bankability of country-related risks in PPP projects in Sub Saharan Africa, especially from foreign financiers' perspectives. This therefore represents a significant gap in knowledge on which basis the current study emerged. The overall aim of this study is to investigate the bankability criteria and associated risk mitigation strategies used by foreign financiers to evaluate country-specific risks in PPP funding applications within emerging market context. The following objectives have been identified for the study:

1. To identify relevant lenders' bankability criteria and existing risk mitigation strategies for evaluating sponsor risk, political, concession and regulatory risks in PPP loan applications in an emerging market.

2. To confirm wider applicability and overall significance of the identified criteria towards influencing the bankability of country-specific risks in PPP funding applications.

3. To propose a "Risk and Bankability" framework model that pairs country-specific risks with bankability criteria and risk mitigation strategies under a robust platform, towards aiding foreign lenders' bankability decision.

The study adopts a mixed methodology approach to research (qualitative and quantitative). In other to identify relevant bankability criteria and risk mitigation strategies for evaluating country-specific risks in PPP loan applications in an emerging market, multiple case studies were investigated. The case studies comprised PPP projects in Nigeria that were financed with significant amount of foreign loans. Asides being an emerging market (classified by the World Bank as a MINT nation) and located in sub Saharan Africa, the choice of Nigeria for PPP case studies was based on her increasing portfolio of PPP projects in the region.

Exploring the subjective views of foreign project financiers was therefore carried out via focus group discussions and document analysis. Wider applicability of the qualitative findings was confirmed using questionnaire survey to both local and international project financiers with involvement in Nigeria's PPP projects. A "Risk and Bankability" framework was thereafter developed from the overall findings and validated with new data from project financiers. This model provides a valuable mind-map for foreign financiers and project sponsors desirous of investing in PPPs in an emerging market. The paper is laid out under four major sections. Sections 2 and 3 focus on literature review. Section 4 discusses the research methodology and described the three PPP projects' used as case studies from Nigeria. Section 5 presents the qualitative and quantitative data analysis (from focus group discussions and questionnaire survey), while section 6 discusses the general findings from the study. The last section of the paper concludes the study.

2.0 PFI/PPP Infrastructure Developments in Emerging Markets

Since its proliferation in November, 1992 in the United Kingdom under the name Private Finance Initiatives (PFI), the application of PPP have crossed bilateral and multilateral borders with private sector-led developmental initiatives (Oyedele, 2013, Demirag *et al*; 2011). According to Atmo and Duffield (2014), the last ten years have witnessed a significant drive towards private participation in the delivery of infrastructures especially in developing economies. The increasing provision of public utilities through public private partnerships have made vital infrastructures such as schools, prisons, hospitals, power plants, bridges, toll roads etc. possible in emerging economies. In a recent study by Hammami *et al*. (2006), the World Bank is reported to have estimated that 20% of global infrastructure investments amounting to US$850billion were financed during the 1990s through the PPP strategy in emerging economies.

Additionally, recent findings culled from Thomson Reuters PFI database confirmed that the volume of non-recourse project finance deals in emerging economies reached an all-time high in 2010. More than 200 deals were struck, with a total capital outlay of over US$130bn across the BRICs (Brazil, Russia, India and China); Europe and the next frontier economies in Africa, Asia, Middle-East and Latin America. However, despite recent popularity, there are mixed fortunes for PPP in emerging markets, considering the significant differences in performances among the EM nations i.e. China, Hong Kong, Taiwan, India, Indonesia, Malaysia, the Philippines, Brazil, Singapore, Sub Saharan Africa etc. (Cavusgil, 1997; Ramamurti and Singh, 2009). Currently, Africa's public sectors still retain the lion's share of infrastructure financing (Briceño-Garmendia *et al.*, 2008). Whereas private-sector led infrastructure finance in Sub-Saharan Africa is still limited to about 5% -10% growth with an annual $48billion financing gap as at 2012 (IFC Report, 2013), the so-called BRIC nations accounts for 62% of private-sector led infrastructure investments, with 60% growth trend as at 2008 (Basilio, 2011). See Fig.1 below for distribution of investment in infrastructures among BRICs and other nations across the globe.

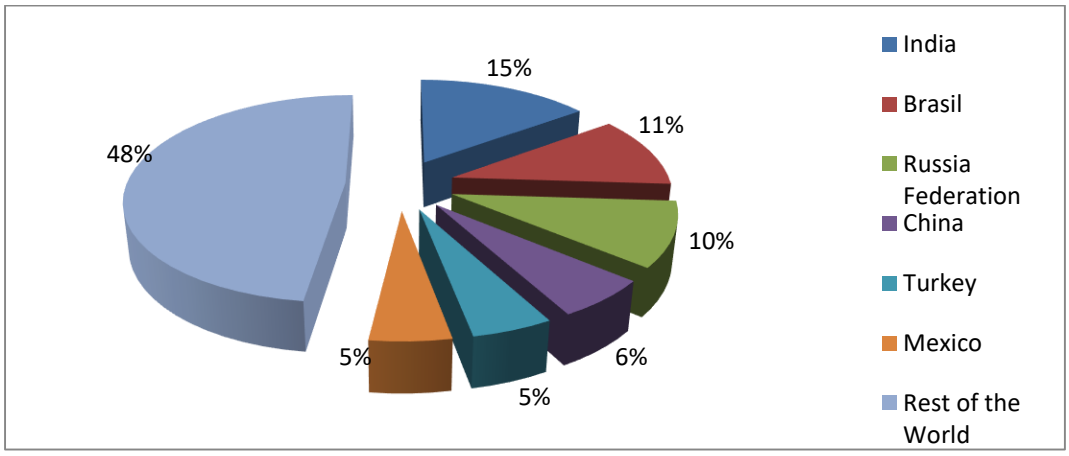

Fig.1 Geographical spread of investments in infrastructure projects in BRICs nations as at 2008 **Source: Basilio (2008)**

From another perspective, PPP infrastructure procurement in Nigeria has gathered momentum in the last decade, with over 25 infrastructure projects being executed across state and federal levels (Solomon *et al,* 2015). Since the first wave of PPP projects in Nigeria which was kick-started with the rebuilding of the Murtala Mohammed Airport (MM2) project in 2003 (Ibem, 2010), several major infrastructure projects have been procured through PPP (Mudi *et al*, 2015). As of now, recent statistics show that about N10trillion has been invested in various PPP projects by different levels of government in the country (Solomon *et al.,* 2015). However, despite the current efforts, Nigeria remains behind many other emerging market economies in terms of infrastructural deficit (New telegraph, March 21st, 2018). Recent statistics suggest an annual infrastructure investment of between $12 and $15billion for the next six years is needed in order to meet Nigeria's growing infrastructural deficit (Emmanuel, 2016; New telegraph, March-2018).

3.0 Risk in PPP Infrastructures in Nigeria

In a study by Royal Society (1983, p.22) cited in Demirag *et al.* (2011), risk is described as the probability that a specific adverse event will happen at a particular period of time. Risk is also referred to as the possibility that an event, its resulting impact and dynamic interaction turns out against anticipated outcome (Bing *et al.,* 2005). Wang *et al*. (2004) classified risks in PPP projects into internal and external risks. While internal risks are common with every project such as design risk, construction risk, operation and maintenance risks among others, external risks are negative uncertainties arising due to project's interaction with the environment. Examples of external risks in PPP projects include regulatory risk, concession risk, currency or foreign exchange risk, political or social uncertainties, reputational risk among others (Akintoye *et al*., 2015; Oyedele, 2013).

According to Liu *et al.* (2016), although external risks abound in most projects regardless of where they are being delivered, the severity of external uncertainties is higher in emerging market PPP projects. For example, a country like Nigeria which is an emerging economy and currently at the lower-level of PFI/PPP maturity model has been bedevilled by a lot of country-related risk factors (Osei and Chan, 2015). As argued by Akintoye *et al.* (2015), apart from challenges of packaging bankable PPP projects, Nigeria is faced with problems like politicization of concession contracts, non-competitive bidding, and land acquisition problems. In another related study, Opawole and Jagboro (2016) bemoaned the lack of demarcation of responsibilities among parties in Nigeria's PPP projects. According to them, Poor clarity in duties results in government performing the duties of private contractors which may lead to project failure (Opawole and Jagboro, 2016). While examining barriers to PPP development in Nigeria, Solomon *et al.,* (2015) also suggested foreign exchange risk, high country risk perception, weak risk assessment and management as challenges that need improvement in order to strengthen Nigeria's PPP market. Dominic *et al.* (2015) argued for better risk allocation that will strengthen service efficiency, including adequate risk transfer to the private sector party for successful PPP implementation in Nigeria. Similarly, Salawu and Fadhlin (2015), whilst assessing risk management maturity of Nigerian PPP contractors condemned the overall risk management maturity level of local contractors. According to the authors, higher risk assessment maturity level is needed to enable improved project performance and reduced uncertainties in project outcomes. Kwofie *et al.* (2016) aligned with above perspective by suggesting effective risk assessment and stakeholder analysis as essential factors for improving the low social acceptability of many Nigerian PPP projects.

Albeit, Nigeria's Infrastructure Concession Regulatory Commission (ICRC) at the federal level, including some few states (Lagos, Rivers, Cross-River etc.) have made serious strides in some aspects of PPP such as project development and preparation, regulation and market awareness. However, more needs to be done in terms of, not only improving Nigeria's infrastructure portfolio, but also the investment climate for PPP financing to thrive. As such, attracting foreign financiers to PPP opportunities in Nigeria will require more effective approaches in areas of enabling risk awareness, identification, assessment and management. This will ultimately have huge impact on PPP growth in Nigeria and also ensure that more bankable projects that can attract both local and foreign investors are packaged.

4.0 Methodology

In order to explore the subjective opinions of foreign PPP financiers while also confirming wider applicability of such views, a 'Mixed Methodology Approach' was employed for the study. With mixed methodology, the research team collected both qualitative and quantitative data towards to addressing the research problem (Creswell, 2013). The qualitative phase of the study commenced with multiple case study exploration of three (3) PPP projects in Nigeria. The adoption of case study strategy was based on the unique nature of PFI/PPP projects in which every project is not the same. Additionally, the choice of Nigerian PPP case studies was hinged on her status as an emerging market with growing portfolio of PPP projects in Sub Saharan Africa. However, considering the need to capture diverse opinions of project financiers across various types of PPP projects while also bracketing out presuppositions about the phenomenon (Feagin *et al.*, 1991; Yin, 1994), the study investigated three different types of PPP projects' case studies. A purposive sampling strategy was employed, in order to identify suitable case study projects as well as information-rich participants. Also known as *"Judgement Sampling"* (see, Coviello and

Jones, 2004), purposive sampling strategy involves deliberate search for informants, based on defined qualities that they possess (Yin, 1994). This sampling approach allowed the research team to leverage on her network of contacts within Nigeria's PPP industry to identify participants and access suitable PPP case studies. Studies such as Grimsey and Lewis (2002), Oyedele (2013); Bing *et al.* (2005) and Eaton (2006) have all adopted similar sampling method within the realm of PFI/PPP literatures.

In more specific terms, the study considered the following criteria in selecting appropriate PPP projects' case studies for the research:

i. Selection of Nigerian PPP projects wholly or partly financed by international financiers.
ii. Availability of evidence-based financing decisions right from funding applications stage by project sponsors, up till financiers' decision to fund the project;
iii. willingness of financiers' team to partake in the study; and
iv. Availability of at least three accessible informants (experienced staff in foreign lenders' project finance team), who have been centrally involved in reviewing the PPP funding applications of the selected PPP projects' case studies.
v. Study to examine any three PPP projects executed in Nigeria between 2003 until 2014.

Based on the above criteria, the three case studies that fulfilled the requirements were a PPP Power Project in South West Nigeria, a PPP Seaport Expansion and Maintenance Project in South West Nigeria and a PPP Hospital Project in South-South of Nigeria. While the PPP power project is a 10-year concession valued at $25.5 million, the seaport expansion project was contracted on 25-year concession with a project value of $60 million. The hospital project in South-South Nigeria is a 10-year concession project with a value of $37 million

(see Table 1 for the nature and attributes of the three PPP case study projects). Going further, after careful selection of the case studies and research participants, the study conducted three (3) focus group discussions which were supported with evidences from loan documentations from project financiers' for qualitative data collection (also see Table 1 for attributes of focus group discussion participants). This was achieved after reaching a non-disclosure agreement with the project financiers especially restrictions with respect to revealing vivid information capable of giving out the financiers identity as well as detailed project description. Participants in the focus group discussions comprised financial risk managers, senior credit analysts, heads of structured finance divisions etc. While the focus group discussions facilitated in-depth understanding of lenders' shared opinions concerning the phenomenon, less-sensitive loan documentations were used to confirm the claims made by financiers during the focus group discussions. The focus group discussions lasted an average of 55mins and were tape recorded, transcribed and later analysed using Nvivo10 Software. Various codes and nodes were assigned to different emergent themes within the data while carrying out a thorough thematic analysis. Twenty-two (22) criteria relevant for evaluating the bankability of sponsor risk, political, legal and concession risks were unravelled. This was in addition to identifying some risk mitigation strategies used by project sponsors in most loan applications. Other sub-risk components emerging from the major risk factors during the process of due diligence appraisal were also uncovered.

Table 1: Attributes of PPP Case Study Projects and Focus Group Discussion Participants

Characteristic of Focus Group Discussion Participants	Case Study A	Case Study B	Case Study C
No. of Participants	***3***	***2***	***4***
Average Experience in Emerging Market PPP financing	***7***	***5***	***8***
Average PFI/PPP Experience in Nigeria	***3***	***3***	***6***
Project Types involved in by lenders:			
▪ *Power Project*	***1***	***1***	***2***
▪ *Road Project*	***2***	***2***	***3***
▪ *Port Project*	***1***	***1***	***1***
▪ *Hospital Project*	***2***	***1***	***2***
Project Nature and Description	**Power Project** This project is a 10-year concession contract for the development and maintenance of an independent power plant in Nigeria under a Build Operate and Transfer (BOT) arrangement. The power project, which cost about $25.5million, was constructed to generate 12.15megawatts of electricity. This was aimed at providing uninterrupted electric power for two water plants both with combined installed capacity of 115million gallons of potable water per day. The project also included the construction of a 13km gas grid connected to the power plant and designed to expand water supply capacity to 85%, as against the initial 40% capacity of the project. The project facility also included a 10year Power Purchase Agreement (Offtake contract) with the government. With the Power Purchase Agreement, the project secured a long-term regular purchase of generated electricity with the water department arm of the public sector client. The project was said to have boosted revenue generation and reduced carbon emissions in the region by 30%.	**Sea Port Expansion Project** This project is a seaport PPP concession contracted under a Build Own Operate Transfer (BOOT) model. The two phased development project involved the construction of a new 220mt harbour, flooring of 220, 000sqmeter area and the provision of other physical as well as IT infrastructures to the terminal. The project which was estimated at $60million (N9.6billion) was to run under a 25year concession agreement by the private sector, with a regular royalty arrangement with the public sector client. The second phase of the project also included the construction of a 200mt harbour and the reclamation of another 40,000sqm of the terminal area. The project was also targeted to produce about 300 direct jobs while contributing additional 1000 indirect job to the national workforce.	**Hospital Project** This project is a Hospital project delivered under the Design, Build, Finance and Operate (DBFO) model. The facility was designed to accommodate about 105-hospital beds and serves as referral hospital. Estimated at a value of about $37million, this facility was procured on a Turnkey basis with 24hours operation and maintenance being undertaken by a group of health consortium. The project is run under a 10-year concession agreement and will ensure the provision of quality and affordable access to regional level clinical services. The facility is also expected to provide advanced secondary clinical and diagnostic services to the populace within its geographical location. An estimated 60,000 patients per annum is expected to patronise the hospital facility.

The second phase of the study involved questionnaire survey developed from findings from the focus group discussions and loan documentations. This ensured validity and wider applicability of results from the qualitative findings (Oyedele, 2013). The survey targeted wider audiences of local and international project financiers who have been involved in structuring financial packages for PPP projects in Nigeria. Questionnaires were distributed using a snowball sampling approach. As such, the research team built on referrals from their existing contacts among local and international project financiers as well as other subject matter experts involved in PPP financing in Nigeria. The survey respondents comprised senior lenders, financial consultants and infrastructure finance and investment firms. A pilot study involving three separate financiers and two academics with an average of 7years prior experience in PFI/PPP project finance was conducted. The study implemented their feedbacks, which included shortening of sentences and rewording of questions to develop the final questionnaire. In the final questionnaire, respondents were asked to rank the perceived importance of each identified criterion on the bankability of the country-specific risks in PPP funding applications from an emerging market. This was done with the aid of a five-point Likert Scale in which; 5 represented "Most Important" while 1 represented "Not Important".

The questionnaire survey was distributed to respondents via email and was accompanied by a letter of introduction detailing the objective of the study. Two hundred and fifty (250) questionnaires were distributed in all, out of which 173 were returned after several reminder emails from June 2013 to March 2015. The rate of response represents 69.2% of total distributed questionnaires. The return rate was considered suitable for analysis owing to the claim by Oyedele (2013) that survey results lower than 30 to 40% could be considered of little significance and biased. Out of the returned questionnaires, twenty-seven (27) were incomplete and so rejected, leaving us with 146 (58%) usable questionnaires from senior

lenders, infrastructure finance experts and financial advisory consultants. Among the questionnaire respondents, 71 were senior lenders, 49 of them were infrastructure finance experts while the remaining 26 were financial advisory consultants (see Table 2 for demographics of survey respondents). On average, all the respondents have 11.7years of experience in project financing in emerging economies. With the aid of Statistical Package for Social Sciences (SPSS), the result of the survey was analysed. Reliability analysis to determine whether the variables were true measures of the construct was carried out. This was then followed by correlation analysis and significance index ranking to ascertain the subjective importance (based on lenders' perception) of each bankability criterion identified in the study. Results from the study were later used to develop a "Risk and Bankability Framework". However, in order to ensure reliability and validity of the proposed framework model, the study validated it with three new PPP Projects in Nigeria. The three projects comprised a $25 million Waste to Energy PPP project in south west of Nigeria, a $703 million BOT Bridge project in South East/South-South of Nigeria as well as a $150 million PPP port project in South West Nigeria. Using snowball sampling, the research team built on referrals from their exiting contacts to access new international project finance experts involved in these projects. The study obtained less-sensitive loan documentations from the financiers to validate the model.

Table 2: Demographics of Respondents in the Survey.

Variables	Sample Size
Total Number of Respondents	146
Type of Organisation	
▪ Senior lenders (Staff Members of banks)	71
▪ Infrastructure Financiers	49
▪ Financial Advisory	26
Years of Experience in PPP Project Finance	
▪ <1	3
▪ 1-5	35
▪ 6-10	47
▪ 11-15	33
▪ 16-20	21
▪ >20	7

5.0 Data Analysis and Findings

This section presents analysis of qualitative and quantitative findings from the study. It commences with the qualitative analysis of loan documentations and focus group discussions conducted with foreign lenders involved in financing PPP projects in Nigeria. Immediately following the qualitative analysis is the quantitative analysis of questionnaire survey distributed to wider audiences of local and international project financiers as well as other subject matter experts involved Nigeria's PPPs and other emerging economies.

5.1 Qualitative Data Analysis

The data analysis commenced with the qualitative aspect of the study. The focus group discussions transcripts were analysed using Nvivo 10 software. The author set out to investigate suitable criteria influencing the bankability of four major risks (sponsor risk, political, concession and regulatory risks) common with emerging market PPPs. Thematic analysis of data transcripts was carried out using various coding and nodes. After exhaustive analysis, 22 relevant criteria influencing bankability of political risk, sponsors, concession

and regulatory risks were unravelled (see, Table 3 for bankability criteria and some mitigations strategies for evaluating country-related risks in PPPs). These bankability criteria, as argued by most focus group discussants, are crucial towards influencing bankability of the identified risks and foreign lenders' loan approval for PPPs in an emerging market.

In addition, the qualitative analysis also produced a couple of existing risk mitigation strategies often put forward by project sponsors in PPP loan applications in emerging economies, coupled with various sub-risk components resulting from the four major risk factors (Sponsors risk, political, concession and regulatory risk). According to many of the participants, where PPP loan applicants had offered risk mitigations that are not considered critical to bankability by the lenders, such mitigation strategy only give "more advantage" to the lenders. However, the important bankability criteria to lenders are clearly and explicitly requested from project sponsors (See Table 3).

Table 3: Analysis of Lenders' Bankability Criteria Adopted for Evaluating for Case Studies

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Risk Factors (RF)	Risk Mitigation Strategies Proffered by Project Sponsors	Lenders Bankability Criteria for Project Appraisal	Case Study A Focus Group (1)	Case Study B Focus Group (1)	Case Study C Focus (1)
Sponsor Risk	Sponsor presents full financial guarantee.	More Advantage	✓	✓	
	Sponsor's background check, credit history and experience in project finance contracts	Sponsors with track record of successful project finance contracts delivered on schedule and within budget	✓	✓	✓
	3rd party debt guarantee in form of corporate/Bank guarantee	Bank-financed guarantee facility or Pre-completion Guarantee.		✓	✓
	Not Provided/Negotiated	Mix of management skills and experience demonstrated by or available to the sponsors	✓	✓	✓
	Not Provided/Negotiated	Sponsor with well-established relationship with a lender	✓		✓
	Front-ended equity contribution	Satisfactory Equity contribution by the sponsor	✓	✓	✓
	Not Provided/Negotiated	Equity contributions must be available either in cash or in a blocked account.		✓	
Country/ Political Risk	Supervision of emerging market risk exposure by Lenders' home country's Central Bank.	More Advantage		✓	✓
	Bank's Internal Country Risk committee to periodically determine appropriate levels of country risk limits	Transfer of Political Risk to Export Credit Agency (ECA)	✓	✓	
	Country/Political risk insurance from private sector insurers	Country Capacity/Political Risk Insurance from private sector insurance	✓		
	Not Provided/Negotiated	Raising a part of the project loan from banks in the host country may reduce currency risk.	✓		✓
	World Bank Backed Project	Multilateral-Backed loan facility	✓	✓	
	Not Provided/Negotiated	"Preferred Creditor status" to the MLA		✓	✓
	Sponsor to be responsible for obtaining necessary permit and approval	Existence of operational permit and approval from the public sector	✓	✓	✓

Risk Factors (RF)	Risk Mitigation Strategies Proffered by Project Sponsors	Lenders Bankability Criteria for Project Appraisal	Case Study A	Case Study B	Case Study C
			Focus Group	Focus Group	Focus
			(1)	(1)	(1)
Legal Risk	Pre-construction environmental impact assessment	Social and Environmental Due diligence	✓	✓	✓
	Compliance with Equator Principles	Compliance with Equator Principles	✓	✓	✓
	Sponsors to bear legal risk	Legal Risk to be borne by sponsor	✓	✓	✓
	Not provided	Annual Reporting of EP's application		✓	
Concession Risk	Concession risk to be borne by project sponsors	Concession risk to be transferred to the SPV	✓	✓	
	Risks arising from performance failure deductions will be transferred to O&M contractor	O&M contractor to bear performance failure risks	✓	✓	✓
	Project Grantor identified and has capacity for approvals	Identity of Grantor and its approval capacity must be known	✓	✓	✓
	Not Provided/Negotiated	Direct Agreement with project grantor and other project contractors and sub-contractors		✓	
	Not Provided/Negotiated	Debt repayments to terminate one or two years before the expiry of concession contract	✓	✓	
	Not Provided/Negotiated	Security rights over SPV's insurance policies, Cash flows and other corresponding assets.	✓	✓	✓
	Not Provided/Negotiated	Right of lenders to replace O&M Contractor	✓	✓	✓

*Based on evidences from the study, **"More Advantage"** indicates that the corresponding risk mitigation strategy proposed by the sponsors were not essential but offer more advantage to lenders.*
***"Not Provided/Negotiated"** indicates that project sponsors did not provide the required bankability criteria from lenders, but rather negotiated such criteria with by offering other mitigations.*

5.2 Quantitative Data Analysis

Reliability Analysis

Since one of the major objectives of this study is to confirm the wider applicability of the various bankability criteria unravelled through the qualitative study, statistical analysis of the questionnaire survey to financiers was carried out. As argued by many social scientists (Spector, 1992; Field, 2005; Santos, 1999), when using Likert Scale questionnaire, a Cronbach's alpha coefficient of reliability must be calculated. Reliability analysis facilitates validity and wider applicability of the bankability criteria, while ensuring the criteria represents true measures of the construct (bankability of the four major risks in PPP loan application from an emerging market). Cronbach's Alpha is mathematically written as:

$$\alpha = \frac{N^2\overline{COV}}{\sum_{factor}^{S^2} + \sum COV_{\,factor}}$$

Where N = the total number of criteria; COV = average covariance between criteria; S_{factor} = variance of each criterion; and COV factor = covariance within a criterion. Since the rule of thumb in Cronbach's alpha coefficient is usually between 0 and 1; a value of 0.7 was considered acceptable (George and Mallery, 2003), while a value of 0.8 suggests strong internal consistency. Using the Statistical Package for Social Sciences (SPSS) software tool, the Cronbach's alpha coefficient for this study was 0.745 (see Table 4 for Reliability Analysis results). This demonstrated good internal consistency and reliability of most of the bankability criteria. Additionally, in order to ascertain whether all the bankability criteria are truly contributing to internal consistency of the construct, the fifth column of Table 4 labelled "Cronbach's alpha if item deleted" was examined. According to George and Mallery (2003), any criterion that is not contributing to the overall reliability of the data, will have its Cronbach's alpha coefficient higher than the overall coefficient (0.745).

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Table 4: Reliability Analysis and Significance Ranking of Bankability Criteria

Risk Factors (RF)		Lenders Bankability Criteria for Evaluating PFI/PPP Loan Application in an Emerging Market Project	Corrected Items: total correlation	Cronbach's α if items deleted	Significance Index (%)	Ranking within Group	Overall Ranking
Sponsor Risk	BC1	**Sponsors with track record of successful project financing, strong credit quality and financial capacity**	0.608	0.721	85.10	1	4
	BC2	**Bank-financed guarantee facility or Pre-completion guarantee**	0.308	0.736	84.11	2	10
	BC3	Mix of management skills and experience demonstrated by or available to sponsors	0.544	0.719	69.10	5	18
	BC4	Sponsor with well-established relationship with a lender	0.512	0.718	70.23	4	17
	BC5	**Satisfactory equity contribution by the sponsors**	0.450	0.730	84.03	3	11
	BC6	Equity contribution must be available either in cash or in a blocked account	0.568	0.727	55.65	6	20
Political Risk	BC7	**Full Transfer of political risk to export credit agency (ECA)**	0.333	0.736	85.32	1	1
	BC8	**Country capacity/political risk insurance from private sector insurer**	0.310	0.737	76.41	4	14
	BC9	Raising part of the project loan from indigenous banks in project host nation to reduce currency risk	0.510	0.738	59.01	5	19
	BC10	**Multilateral Agency-Backed Loan facility**	0.377	0.720	85.21	2	2
	BC11	**"Preferred Creditor Status" granted by the MLA to participating banks**	0.359	0.738	81.15	3	12
Legal Risk	BC12	**Existence of Operational permit and approval from the project grantor**	0.314	0.733	85.01	1	5
	BC13	**Social and environmental due diligence**	0.378	0.740	84.43	2	8
	BC14	**Compliance with Equator Principles**	0.388	0.746	84.15	3	9
	BC15	Annual reporting of Equator Principles implementation on the project	**0.114***	**0.820***	51.24	4	22
Concession Risk	BC16	**Concession risk to be transferred to the project company**	0.484	0.725	72.15	5	15
	BC17	**Direct contractual relationship between lenders and project grantor, as well as other project contractors and sub-contractors respectively**	0.529	0.721	84.70	2	6
	BC18	**Security rights over project company's insurance policies, cash flows and other income generating contracts as well as assets**	0.540	0.723	84.49	3	7
	BC19	Identity of project grantor and her approval capacity must be ascertained	0.507	0.726	85.12	1	3
	BC20	Debt repayments to terminate one or two years before the expiration of concession	**0.217***	**0.771***	54.11	7	21
	BC21	Right of lenders to replace operations and maintenance contractor	0.554	0.745	71.04	6	16
	BC22	Operations and Maintenance contractor to bear performance failure risks	0.388	0.718	79.17	4	13

370
371 *Cronbach's alpha (α) coefficient for overall reliability of the data is 0.745; Bankability Criteria coefficient marked (*) represent items deleted; BC means Bankability Criteria*

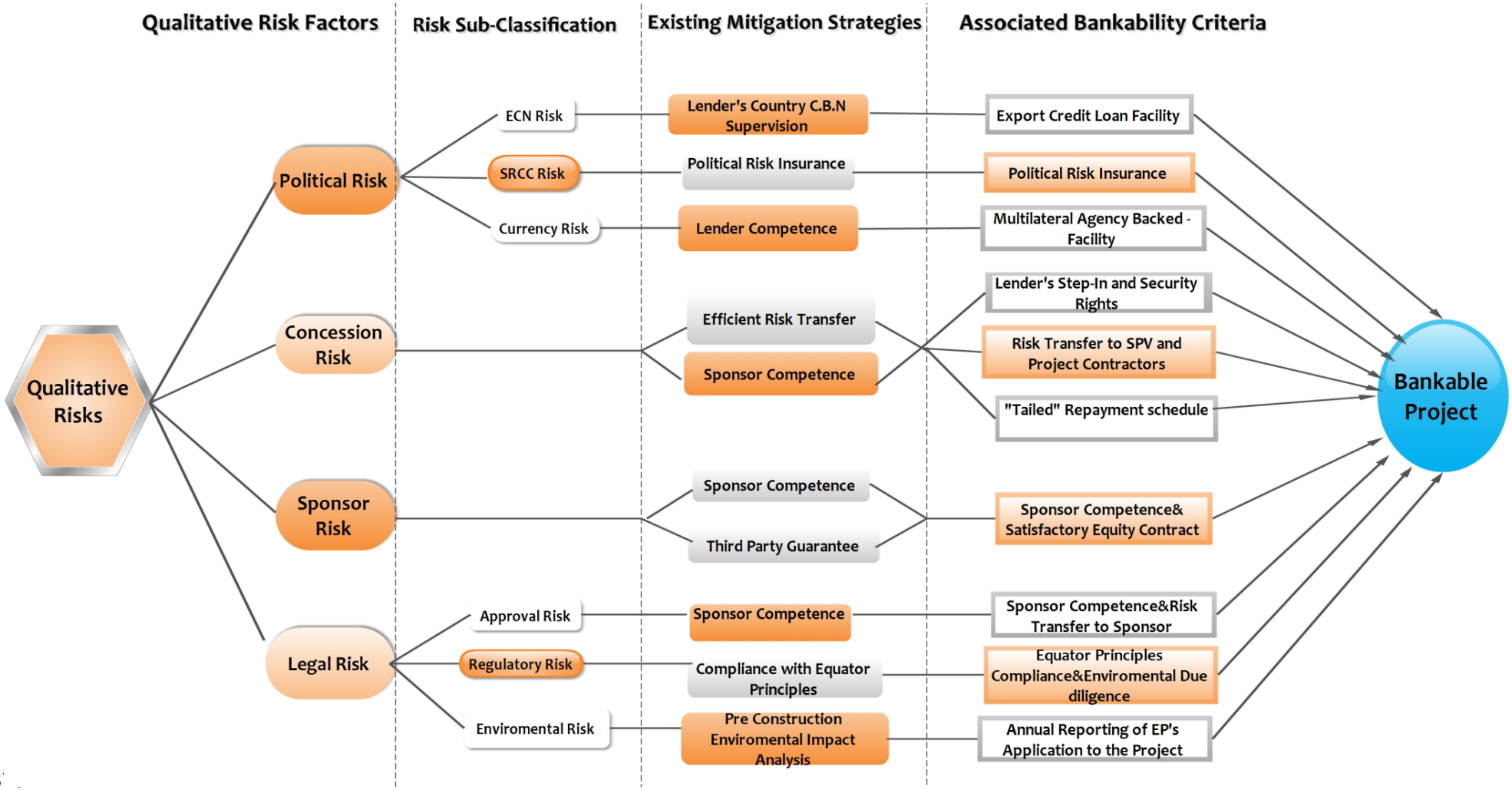

Fig.2: Framework for Risks, Mitigation Strategies and Associated Bankability Criteria

This suggests that such higher value for a criterion, if deleted, would improve the overall reliability of the entire data set (Field, 2005). Based on this rule, only two criteria (BC15 and BC20) were revealed to have values of 0.820 and 0.771 respectively as reflected in the fifth column of Table 8. This indicates that the criteria – "Annual reporting of Equator principles in project host nation" and "Debt repayments to terminate one or two years before the expiry of concession contract " are considered unreliable and do not represent a good measure of evaluating bankability of legal and concession risks. This also corresponds with the low correlation coefficient of these two criteria, as shown in the fourth column of Table 8. ***The Correlated item:*** total correlation column represents the correlation between each criterion and Cronbach's alpha (α) of the entire data. In reliable data, all criteria are expected to correlate with the overall reliability. As such, any correlation coefficient that is less than 0.3 should be dropped (Santos, 1999). In view of this, the two bankability criteria BC15 and BC20 show correlation coefficient of 0.237 and 0.117 respectively. As such, these two criteria were later dropped from the list, leaving us with only 20 reliable bankability criteria.

Significance Index Ranking

After conducting reliability and correlation analysis, this study proceeded to identify the significance index ranking of each criterion based on lenders' perception. Significance indexing is a quantitative technique, which ranks all criteria from the survey based on their relative significance value. Similar to the approached used by Spillane *et al*. (2012) and Tam *et al*. (2000), the significance index ratings for the 22 criteria were arrived at using a simple mathematical equation expressed below:

$$Significance\ Index\ (SI) = \left(\frac{\sum(s)}{NS}\right) \times 100\%$$

Where s represents the significance rating on a Likert scale of 1 to 5, S is the highest significance rating (that is 5) and N is the total number of responses for that particular criteria. The significance index and ranking are shown in column six, seven and eight of Table 8 respectively. With

significance index calculation, the linear five-point Likert scale used in the questionnaire is converted into a percentage scale. As such, 0% represents the lowest, while 100% represents the highest significance value achievable. This indicated that the Likert scale values of 1, 2, 3, 4, and 5 have significance indexes of 0, 25, 50, 75, and 100, respectively. Based on the survey analysis, significance index (SI) values were produced for the 22 bankability criteria ranging from 85.32 to 51.24 (see Table 8 for bankability criteria's significance index ranking). The top seven most significant bankability criteria with an overall index ranking of moderately significant or SI value of ≥75.00 across the four country-specific risks are:

- BC7= Full Transfer of Political Risk to Export Credit Agency (ECA).
- BC10= Multilateral Agency-Backed Loan Facility
- BC19= Identity of project grantor and her approval capacity must be known.
- BC1= Sponsors with track record of successful project financing, strong credit quality and financial capacity.
- BC12= Existence of operational permit and approval from the project grantor.
- BC17= Direct contractual agreement between lenders and project grantor, as well as other project contractors and sub-contractors respectively.
- BC18= Security rights over SPV's insurance policies, Cash flows and other corresponding assets.

6.0 Discussion of Findings

This section discusses findings from focus group discussions and questionnaire survey to foreign project financiers and experts concerning bankability of country-specific risks (Sponsor, political, Legal and concession risks) in PPP loan applications in an emerging market. Twenty (20) important bankability criteria for evaluating the four risks were explored from foreign financiers' perspectives.

423 The significance ranking of each criterion towards determining the bankability of country-specific
424 risks in PPP loan applications was calculated. Evidences from the questionnaire survey, as shown in
425 Table 4 above, were corroborated with findings from the focus group discussions with financiers
426 (See Table 3 and 4). Results from the study were used to construct a "Risk and Bankability
427 Framework" and validated with new data set from project financiers (see Fig.2. for Risk and
428 Bankability Framework).

429 ## 6.1. Sponsor Risk and Associated Bankability Criteria

430 Evidences from the study, as reflected in Table 3, revealed sponsor risk is inherent in the three PPP
431 case studies investigated. Focus Group Discussion (FGD) participants referred to sponsor risk
432 analysis as a "smell test" that must be conducted by lenders before loans are granted. In evaluating
433 sponsor risk in PPP loan applications within emerging market context, lenders consider the
434 **"competence of the project sponsors"** to be crucial to bankability. This is based on results from the
435 questionnaire survey, which shows a high significance index ranking of 85.10, in terms of its
436 influence on bankability of sponsor risk (see Table 4). The result confirms findings from the FGD
437 captured in the views of one of the participants who argued that:

438 *"Foreign lenders will consider factors like sponsor's identity, sponsors' credit background,*
439 *the sponsor's financial strength, the sponsor's history of corporate dealings, probability of*
440 *default etc."*

441 The above assertions highlights Atmo and Duffield (2014) as well as Hoffman (2008) who argue that
442 the fact that project finance loans are granted to a newly formed Special Purpose Vehicle (SPV) does
443 not suggest lenders are not interested in the identity and credit history of project sponsors. Rather, the
444 profile of the project sponsors or any prior banking relationship with the lender will play a crucial
445 role in addressing possible information asymmetry. Another important bankability criterion for
446 evaluating sponsor risk, based on results from the survey, is the **"existence of Pre-completion**

guarantee or full-financial guarantee presented by project sponsors". Evidences in Table 4 show a significance index ranking of 84.11, indicating high lenders' perception of the criterion towards influencing lenders bankability decision. The result buttresses suggestions from some of the FGD participants who argued that, where lenders are not satisfied with the credit risk profile of a project sponsor:

"In such cases a foreign bank will demand credit risk enhancements such as Pre-completion Guarantee, full-financial Guarantee, third party guarantee or even a bank-financed guarantee, for better considerations."

This is in line with Hoffman (2008) and Mills (2010) who opined that, to foreign lenders, credit guarantee serves as collateral against project incompletion. Hence, the presence of such facilities in a PPP loan application will improve the bankability of such funding applications from foreign financiers' perspectives (Grimsey and Lewis, 2002). According to Yescombe (2007) and Mills (2010), credit risk enhancement may become crucial to lenders where the sponsors have weak credit quality or have no prior experience in project financing arrangements. In addition, going by findings revealed in Table 3, another crucial bankability criterion used for evaluating sponsor risk in PPP loan applications from an emerging market is the **"sponsors' equity case".** Relying on survey findings which show a significance ranking of 84.03 for this criterion (see Table 4), the share of equity contribution of projects sponsors must be satisfactory to lenders. As confirmed by FGD findings, participants' argue that:

"It is also important to consider the debt equity ratio on offer. This is because; the amount of equity to be injected into the project by the sponsor team and the timing of such injection will also influence foreign funding decision".

Studies such as Demirag *et al.* (2011), Al-Khattab *et al*. (2007) and Mills (2010) have confirmed the above claim and argued that the amount of equity contribution of sponsors will determine the extent of the lenders' funding, her recourse as well as the loan price during due diligence appraisal.

According to Hoffman (2008), lenders believe that, the more the sponsor's equity at stake in PPP projects, the higher the commitment and the lesser the possibility of walking away in case the project encounters challenges.

6.2 Country/Political Risk and Associated Bankability Criteria

Going by evidences from the study, political risk was considered very important in the three PPP projects' case studies investigated. As shown in the results from the questionnaire survey (see Table 3 and 4), an important bankability criterion for evaluating political risk in PPP loan applications is the **"transfer of political risk to Export credit agencies"**. The high significance ranking of the criterion (85.32) confirms lenders' strong perception of its influence on the bankability of political risk in PPPs, especially from an emerging market context (see Table 4). This perspective was also highlighted by discussants in some of the focus group discussions.

"Definitely, Export Credit Agency (ECA) assisted facility has got high bankability potentials. Foreign Banks can be sure their political risk exposure is covered to a significant level".

In buttressing the above perspective, Matsukawa and Habeck (2007) argued that, ECAs are providing a new source of long-term finance for infrastructures especially in the emerging BRICs nations. This helps reduce cost of lending to critical infrastructures, while international lenders are able to transfer political risks in projects to the public financial agencies. However, according to Giannetti and Ongena (2012), in practice, ECAs do not provide "Full Risk Transfer" to lenders because certain percentage of the project loan (5%-10%) is usually uncovered under the ECAs' political risk guarantee. In addition, going by findings from the survey as well as the focus group discussions, the involvement of **"Multilateral Agencies (MLA)"** such as the World Bank usually enhances the potentials of indigenous investors' loan applications. Evidences from the survey revealed high lenders perception with a significance index of 85.21, concerning the important role of

MLAs in providing political risk cover for PPPs in emerging markets. This buttressed the perspectives of many FGD participants, who opined that:

"Many PPP projects in these (developing) economies are often World Bank and IFC (International Finance Corporation) assisted….especially Africa …. And that's good for us as an international lender since it provides much guarantee against the common political risk situations in many of these (emerging) places.

This view has been confirmed by Hoffman (2008) and Ramamurti (2009) who suggested that MLAs provide some form of political risk guarantees for participating banks in order to encourage financing. This is evidenced by the "Preferred Creditor's Status" usually granted banks collaborating with MLAs in financing a project. Such involvement of international development financier boosts the bankability consideration of a prospective PPP project (Delmon, 2011). Further findings from FGD participants as reflected in Fig. 4 above, identified three sub-risk components, which often spinout from political risk and are thus inter-dependent:

"We could classify political risk into (i) Expropriation, Confiscation and Nationalisation (ECN) risk, (ii) Strike, Riot, and Civil commotion (SRCC) (iii) and currency risk. And you will agree with me that, all the risks present various threats to lenders investments in such projects"

According to Khoury and Zhou (1998), where a project host nation has high political risk index, any of the above components may be responsible. In tackling these likely threats to lenders financial stakes in projects, an important bankability criterion for lenders to consider is the **"Existence of Private-Sector Political Risk Insurance Cover"**. This was confirmed by results from the survey, showing a significance index rating of 76.41, indicating high lenders' perception. In what seemed largely a unanimous opinion, most FGD participants emphasized the importance of private-sector

political risk insurance in financing PPPs in emerging market. As captured in the view of one of the participants:

"If foreign Banks were to finance such projects, depending on the country capacity of the project host nation, we would definitely request a Private-Sector Political Risk Insurance Cover from would-be project sponsors. This is one of the most common global best practices in international lending to projects. It does not have to be a PPP project before banks consider political risk insurance cover".

Studies such as Hoffman (2008), Yescombe (2007), Atmo, and Duffield (2014) have confirmed these assertions. According to Yescombe (2007)and Hoffman (2008), private-sector political risk insurance cover may be in form of general insurance cover for a PPP project; or may be tailored to the foreign lenders' key concerns (Delmon, 2011). In situations where the insurance policy is targeted at lenders' specific concerns in the concession, any risk arising from events not mentioned in the insurance policy will not be reimbursed (Mills, 2010).

6.3 Legal Risk and Associated Bankability Criteria

Going by evidences from the study, legal risk was important and was given high consideration by financiers in the three case studies examined. As represented in the qualitative framework in Figure 2 above, the study identified three sub-risk factors that often emerge from legal risk: permit and approval risk, regulatory risk and environmental risk. Based on evidences from the survey, the bankability criterion **"existence of operational permit and approval from public sector"** is considered most important in legal risk analysis. This is based on lenders' perception with a significance index rating of 85.01. Focus group discussants also highlighted the importance of permit and approval to successful implementation of PPPs, as encapsulated in the views of one of the discussants who argued that:

"One needs to determine whether such proposed project has got necessary permits and approval from relevant government departments or agencies. Foreign banks will expect

sponsors of projects to obtain legal and regulatory approvals for the construction and operations of a project. Of course failure to obtain such results in delay in project start-up which will definitely distort financing plans".

This view was buttressed by Wang *et al.* (2004) who argued that project grantor's approval is essential to funding decision because most financiers will not fund any unapproved concession. As such, sponsors are usually expected to present lenders with operational permits and approvals of project, as a condition for funding approval. Additionally, in evaluating potential legal risks in a PPP loan application from an emerging market context, results from questionnaire survey show that, foreign lenders consider the **"environmental impact assessment of potential projects**" on host communities, as very crucial to loan approval. This confirms the high significance index of the criterion at 84.43, based on lenders perception. In supporting the above perspective, many discussants in the focus groups opined that:

"International lenders will request project sponsors to present evidence of Environmental Impact Assessment (EIA) report of the project. The EIA report details the potential impact of the project on the host community. It's important for banks to avoid litigation arising from environmental damage to a project host community as this portends great danger to lenders funds".

The above perspective is buttressed by Hoffman (2008), who suggested that, lenders are increasingly becoming more environmentally aware of impacts of projects on host communities. As such, most banks will seek to avoid a reputational risk that may arise due to negative publicity from environmental pressure groups (Mills, 2010). This is more essential, especially where the project host nations are outside the OECD nations and external risks to projects is often high (Yescombe, 2007). Further results from the survey also show a high significance index rating of 84.15 for **"Compliance with Equator Principles"**. The significance index of the criterion confirms evidences from focus group discussions, as captured in the views of one of the discussants who argued that:

"We would have to also consider the project's Compliance with Equator Principles (EPs). These equator principles are World Bank's global environmental best practices, and most international lenders in OECD nations will request this as part of due diligence appraisal for funding approval.".

Existing literatures such as Amalric (2005), Gupta *et al.* (2002), Yescombe (2007), share this perspectives and argued that, a common practice for most compliant banks in OECD nations is, to insist on environmental impact assessment of proposed PPP projects. This is in line with global environmental KPIs' as prescribed by the Equator Principles (Gupta *et al*., 2002). Equator Principles (EPs) was introduced in 2003 in Washington DC after a consultation among select international lenders and the International Finance Corporation (IFC) (Hardenbrook, 2007). With the EPs, key Performance standards in terms of socio-environmental sustainability of project's geographical location were introduced in line with the World Bank health and Safety general guidelines (Giannetti and Ongena, 2012).

6.4. Concession Risk and Associated Bankability Criteria

As represented in Table 3 above, evidences from the study indicate that, the lenders examined concession risk when evaluating the three case studies under investigation. Based on results from survey responses with respect to determining the bankability of concession risk in PPP loan application within emerging market context (see Table 4), top on lenders' criteria is unravelling the **"identity and powers of the project grantor"**. This is evidenced by the significance index rating of 85.12 from survey analysis. FGD participants also share these perspectives, and this was captured in the view of a discussant who argued that:

"The identity of the Awarding Authority (project grantor) coupled with her capacity to grant concession approvals will be critically assessed before foreign banks commit funds to such PPP project".

589 This perspective is in line with Mills (2010) and Delmon (2011) who argued that a project grantor
590 must have the legal powers to contract a project on concession basis. The lack of such powers
591 therefore, automatically invalidates the actions of the awarding authority and poses threats to the
592 realization of the project. Giannetti and Ongena (2012) suggested that foreign lenders want to
593 ascertain whether a project grantor enjoys implicit cooperation and supports of higher authorities in
594 the project's host nation for her contractual activities. This enables lenders to envisage any potential
595 clash of interests between the provisions of the concession and existing government laws in host
596 nations (Sachs *et al.*, 2007). Additionally, further evidences from the survey as shown in Table 4
597 revealed that, asides unravelling the identity and powers of the project grantor, foreign lenders
598 considering emerging market PPP loan applications will also require **"direct legal contracts with**
599 **the project grantor and other parties to the project".** Based on significance index rating of 84.70,
600 survey respondents consider this criterion important in evaluating concession related risks in an
601 emerging market. This further attest to evidences from the qualitative study in which some focus
602 group participants opined that:

603 *"Usually you find banks having direct contractual agreement with awarding authorities and*
604 *project sub-contractors in an emerging market PPP project. Obviously such agreements is*
605 *to enable lenders protect her Secured Creditor's Rights with the authority, in case the*
606 *concession is terminated".*

607 The above assertion is in line with Busse and Hefeker (2007) and Chan *et al.* (2014), who both
608 argued that lender's direct agreements ensures that the contractual relationship between the SPV and
609 other sub-contractors are in tandem with clauses and service level specifications stipulated in the
610 concession contract. Such direct contract therefore puts lenders in the supervisory role, especially
611 considering the high-leverage nature of PPPs and relative systemic instability in many of these
612 regions.

Further findings from the study also indicate that, as part of measures to ensure proper due diligence is taken on funding applications for PPPs in an emerging market; "**lenders will impose some security rights on the project SPV"**. Based on survey responses, the significance index rating of this criterion is 84.49. This suggest high lenders' perception with respect to its influence on bankability of concession risk. The above evidence further confirms perspectives highlighted during some of the FGDs. As encapsulated in the argument of one of the discussants:

"You have to demand contractual security rights on PPP project assets, cash flows and other income generating contracts of the SPV. These are very important issues in bankability for most lenders to PPPs".

Boeing and Kalidindi (2009) highlighted the above perspective and suggested that, in most instances lenders exercise security rights over assets and cash flows of PPPs in order to consolidate their positions in a project. This becomes more important in the event of project failure or concession termination by the awarding authority. Hence, such security rights help foreign lenders to mitigate the severity of any exposure at project default (Hoffman, 2008).

7.0 Conclusion

Project finance stakeholders consider the bankability of country-related risks as essential for funding PPP projects in emerging markets. Bankability of project risk is even more crucial within Sub Saharan African context given the high country-risk perception which has hindered adequate foreign financing. This study embraced a mixed methodology approach to investigate four country-related risks prevalent in many emerging markets by using Nigerian PPP environment as context. The investigated risks included sponsor risk, political, legal and concession risks. Multiple case studies of three PPP projects in Nigeria were used to identify important bankability criteria for evaluating project loan applications within emerging market context. The qualitative strategy comprise focus

group discussions (FGD) with foreign financiers in Nigeria's existing PPPs, and loan document analysis which helped reveal 22 relevant bankability criteria. Going further the wider acceptability of the 22 bankability criteria were later confirmed using a questionnaire survey to wider audiences among foreign and local financiers in Nigeria's PPP market. Statistical results of the survey revealed top seven (7) bankability criteria considered "very important" for winning foreign financiers' loan approval for PPPs in emerging market. These include: BC7= Full Transfer of Political Risk to Export Credit Agency (ECA), BC10= Multilateral Agency-Backed Loan Facility, BC19= Identity of project grantor and her approval capacity must be known., BC1= Sponsors with track record of successful project financing, strong credit quality and financial capacity, BC12= Existence of operational permit and approval from the project grantor, BC17= Direct contractual agreement between lenders and project grantor, as well as other project contractors and sub-contractors respectively, and BC18= Security rights over SPV's insurance policies, cash flows and other corresponding assets. Further findings from the study also revealed the complexity and true structure of certain risks in emerging markets PPPs, with the existence of sub-risk components (i.e. ECN, SRCC Currency, approval, environmental risk, approval risk, etc.). It is relevant to note that, most sub-risk components PPP evaluation often come as offshoots of many major risk factors during analysis. Hence, the occurrence of the major risks will automatically throw up other emerging risk components which require equal and careful bankability evaluation. Results from this study confirm a number of existing studies by arguing that, unless risks are matched with their bankability criteria and practical mitigation, the much needed clarity will be lacking especially in market where PPP growth is still nascent. Based on findings from the study a **"Risk and bankability framework model"** for assessing the four country-specific risks in PPP loan applications within an emerging market context was developed. The framework model pairs risk factors with various mitigation strategies as well as associated bankability criteria under a single platform. The study validated the model with another set of data from foreign project financiers and other subject matter experts with emerging market project

financing experiences. As such, the framework model proposed in the study presents a valuable mind-map tool and checklist for foreign financiers including private investors interested in emerging market PPP projects. This result mirrors the perspective of Kayaga (2008), who suggested that the relative slow pace of PPP growth in Sub Saharan Africa can be attributed to huge hindrance posed by country-related risks to the bankability of indigenous PPP projects. Thus, results from the study represent critical parameters for winning foreign loan approval for PPP infrastructure projects within an emerging market context.

Future studies should endeavour to widen the scope of this study. These include using more contexts to confirm the applicability of findings from the current study with respect to other emerging economies. It may also be very essential to explore the impact of public sector guarantee on the bankability of PPPs within emerging market context. Further empirical studies are also needed on how to avoid lenders' "call for event of default" in PPP projects, determinants of sponsors' equity contribution in typical project finance arrangements, and lenders' perspective to securitization in PPP projects among other things.

8.0 References

Akintoye, A., Beck, M., & Kumaraswamy, M. (Eds.). (2015). Public private partnerships: A global review. Routledge.

Al Khattab, A., Anchor, J., & Davies, E. (2007). Managerial Perceptions of Political Risk in International Projects. *International Journal of Project Management*, 25(7), 734-743.

Amalric, F. (2005). The Equator Principles: A Step towards Sustainability. [Online]. *Center for Corporate Responsibility and Sustainability. [Accessed 3rd Feb, 2015]*.

Ameyaw, E. E., & Chan, A. P. (2015). Evaluation and ranking of risk factors in public–private partnership water supply projects in developing countries using fuzzy synthetic evaluation approach. *Expert Systems with Applications*, 42(12), 5102-5116.

Atmo, G. U., and Duffield, C. (2014). Improving Investment Sustainability for PPP Power Projects in Emerging Economies: Value for Money Framework. *Built Environment Project and Asset Management*, 4(4).

Babatunde, S. O., & Perera, S. (2017). Barriers to bond financing for public-private partnership infrastructure projects in emerging markets: A case of Nigeria. Journal of Financial Management of Property and Construction, 22(1), 2-19.

Babatunde, S. O., Opawole, A., and Akinsiku, O. E. (2012). Critical Success Factors in Public-Private Partnership (PPP) on Infrastructure Delivery in Nigeria. *Journal of Facilities Management*, 10(3), 212-225.

Basılio, M. (2011). Infrastructure PPP investments in Emerging Markets. [Online]. Available at [http://www.efmaefm.org/0EFMAMEETINGS/EFMA%20ANNUAL%20MEETINGS/2011-Braga/papers/0337_update.pdf]. [Accessed on 12th Feb, 2015].

Bekaert, G. and Harvey, C. R. (2002). Research in Emerging Markets Finance: Looking to the Future. *Emerging Markets Review*, 3(4), 429-448.

Bing, L., Akintoye, A., Edwards, P. J. and Hardcastle, C. (2005). The Allocation of Risk in PPP/PFI Construction Projects in the UK. *International Journal of project management*, 23(1), 25-35.

Briceño-Garmendia, C., Smits, K., and Foster, V. (2008). Financing Public Infrastructure in Sub-Saharan Africa: Patterns and Emerging issues. *AICD Background Paper*, 15(1).

Boeing Singh, L. and Kalidindi, S. N. (2009). Criteria Influencing Debt Financing of Indian PPP road projects: A Case Study. *Journal of Financial Management of Property and Construction*, 14(1), 34-60

Busse, M. and Hefeker, C. (2007). Political Risk, Institutions and Foreign Direct Investment. *European journal of political economy*, 23(2), 397-415.

Cavusgil, S. T. (1997). Measuring the Potential of Emerging Markets: An Indexing Approach. *Business Horizons*, 40(1), 87-91.

712 Chan, A. P., Lam, P. T., Wen, Y., Ameyaw, E. E., Wang, S. and Ke, Y. (2014). Cross-Sectional
713 Analysis of Critical Risk Factors for PPP Water Projects in China. *Journal of Infrastructure*
714 *Systems*.

715 Creswell, J. W. (2013). Research design: Qualitative, Quantitative, and Mixed Methods Approaches.
716 Sage Publications.

717 Coviello, N. E., and Jones, M. V. (2004). Methodological Issues in International Entrepreneurship
718 Research. *Journal of Business Venturing*, 19(4), 485-508.

719 Delmon, J., (2011). Public–Private Partnership Projects in Infrastructure: An Essential Guide for
720 Policy Makers. New York: Cambridge university press.

721 Demirag, I., Khadaroo, I., Stapleton, P., and Stevenson, C., (2011). Risks and the Financing of PPP:
722 Perspectives from the Financiers. *The British Accounting Review*, 43 (2011) 294–310.

723 Dominic, M. U., Ezeabasili, A. C. C., Okoro, B. U., Dim, N. U., & Chikezie, G. C. (2015). A review
724 of Public Private Partnership on some development projects in Nigeria. International Journal of
725 Application Innovation in Engineering & Management, 4(3).

726 Eaton, D., Akbiyikli, R. and Dickinson, M. (2006). An Evaluation of the Stimulants and
727 Impediments to Innovation within PFI/PPP projects. *Construction Innovation: Information,*
728 *Process, Management*, 6(2), 63-67.

729 Feagin, J. R., Orum, A. M., and Sjoberg, G. (Eds.). (1991). A case for the case study. UNC Press
730 Books.

731 Field, A. (2005). Discovering Statistics using SPSS. 2nd Ed., Sage Publications, London.

732 George, D. and Mallery, M., (2003). Using SPSS for Windows Step-by-Step: A Simple Guide and
733 Reference. Boston, MA: Allyn y Bacon.

734 Giannetti, M. and Ongena, S. (2012). "Lending by Example": Direct and Indirect Effects of Foreign
735 Banks in Emerging Markets. *Journal of International Economics*, 86(1), 167-180.

736 Grimsey, D., and Lewis, M., (2002). "Evaluating the Risks on Public Private Partnerships for
737 Infrastructure Projects". *International Journal of Project Management*, Vol. 20, pp 107-118.

738 Gupta, P., Lamech, R., Mazhar, F. and Wright, J. (2002). Mitigating Regulatory Risk for Distribution
739 Privatization: The World Bank Partial Risk Guarantee. *Energy & Mining Sector Board*
740 *Discussion Paper*. Series, (5).

741 Gutman, J., Sy, A., & Chattopadhyay, S. (2015). Financing African infrastructure: Can the world
742 deliver?.

743 Hammami, M., Ruhashyankiko, J. F. and Yehoue, E. B. (2006). Determinants of public-private
744 partnerships in infrastructure. [Online]. *International Monetary Fund*. Available at
745 [https://www.imf.org/external/pubs/ft/wp/2006/wp0699.pdf]. [Accessed on 16th Feb, 2015].

746 Hardcastle, C., Edwards, P. J., Akintoye, A. and Li, B. (2005). Critical Success Factors for PPP/PFI
747 Projects in the UK Construction Industry: A Factor Analysis Approach. *Construction*
748 *Management and Economics*, 23(5), 459-471.

749 Hoffman, S.L., (2008). The Law and Business of International Project Finance, 3rd edition. New
750 York: Cambridge University press.

751 Ibem, E. O. (2010). An Assessment of the Role of Government Agencies in Public-Private
752 Partnerships in Housing Delivery in Nigeria. *Journal of Construction in Developing Countries*,
753 15(2), 23-48.

754 International Finance Corporation Report (2013). Advisory Services in Public Private Partnerships in
755 Sub Saharan Africa. Available online
756 [www.ifc.org/wps/wcm/connect/.../RegionalFactsheet_Africa.pdf?MOD..]. [Accessed on 3rd
757 Jan, 2015].

758 Kayaga, S., (2008). Public-Private Delivery of Urban Water Services in Africa.

759 Kennedy, M. M. (1979). Generalizing from Single Case studies. Evaluation Review, 3(4), 661-678.

760 Khadaroo, I. (2014) The Valuation of Risk Transfer in UK School Public Private Partnership
761 Contracts. *The British Accounting Review*, 46(2), 154-165.

762 Khoury, S. J. and Zhou, C. (1998). Country Risk: Existing Models and New Horizons. *Handbook of*
763 *International Banking*, 13. 327.

764 Kwofie, T. E., Afram, S., & Botchway, E. (2016). A critical success model for PPP public housing
765 delivery in Ghana. Built Environment Project and Asset Management, 6(1), 58-73.

766 Liu, T., Wang, Y., & Wilkinson, S. (2016). Identifying critical factors affecting the effectiveness and
767 efficiency of tendering processes in Public–Private Partnerships (PPPs): A comparative
768 analysis of Australia and China. International Journal of Project Management, 34(4), 701-716.

769 Merriam, S. B. (1998). Qualitative Research and Case Study Applications in Education. Revised and
770 Expanded from" Case Study Research in Education.". Jossey-Bass Publishers, 350 Sansome St,
771 San Francisco, CA 94104.

772 Mills, S., (2010). "The Mechanics of Project Finance". *Institute for International Research* (IIR),
773 Limited, U.K.

774 Mudi, A., Lowe, J., & Manase, D. (2015). Conceptual Framework for Public-Private Financed Road
775 Infrastructure Development in Nigeria. International Journal of Engineering Research &
776 Technology, 4(8), 586-590.

777 Ncube, M., (2010). Financing and Managing Infrastructure in Africa. *Journal of African Economies*,
778 19(suppl 1), pp.i114-i164.

779 Noor, K. B. (2008). Case study: A Strategic Research Methodology. *American Journal of Applied*
780 *Sciences*, 5(11), 1602.

781 Nunnaly, J. (1978) Psychometric Theory. New York: McGraw-Hill.

782 Olsson, C. (2002). Risk Management in Emerging Markets. *Financial Times and Prentice Hall*,
783 London.

784 Oyedele, L., (2013). "Avoiding Performance Failure Payment Deductions in PFI/PPP Projects:
785 Model of Critical Success Factors". *Journal of Performance of Constructed Facilities*, Volume
786 27, Issue 3 (June 2013), pp. 283–294.

787 Osei-Kyei, R., & Chan, A. P. (2015). Review of studies on the Critical Success Factors for Public–
788 Private Partnership (PPP) projects from 1990 to 2013. International Journal of Project
789 Management, 33(6), 1335-1346.

790 Quiggin, J. (2004). Risk, PPPs and the Public Sector Comparator. *Australian Accounting Review*,
791 14(33), 51-61.

792 Ramamurti, R. and Singh, J. V. (Eds.) (2009). Emerging Multinationals in Emerging Markets.
793 Cambridge University Press.

794 Royal Society. (1983). Risk Assessment: Report of a Royal Society study group. London: Royal
795 Society.

796 Sachs, T., Tiong, R. and Wang, S. Q. (2007). Analysis of Political Risks and Opportunities in Public
797 Private Partnerships (PPP) in China and Selected Asian Countries: Survey Results. *Chinese*
798 *Management Studies*, 1(2), 126-148.

799 Spector, P.E., 1992. Summated Rating Scale Construction: An introduction (No. 82). Sage.

800 Spillane, J.P., Oyedele, L.O., and von Meding, J. (2012) Confined Site Construction. *Journal of*
801 *Engineering*, Design and Technology. 10(3), pp. 397–420. doi:10.1108/17260531211274747.

802 Tam, C.M., Deng, Z.M., Zeng, S.X., and Ho, C.S. (2000) Quest for Continuous Quality
803 Improvement for Public Housing Construction in Hong Kong, *Construction Management and*
804 *Economics*, 18(4), pp. 437–446. doi:10.1080/01446190050024851.

805 Santos, J.R.A., (1999). Cronbach's Alpha: A Tool for Assessing the Reliability of Scales. *Journal of*
806 *Extension*, 37(2), pp.1-5.

807 Stake, R. E. (2013). Multiple Case Study Analysis. Guilford Press.

808 Vetiva, (2011). Construction Industry Report: A Haven of Opportunities. [Online] A publication of
809 VETIVA Capital Management Limited. Accessed [18 February, 2015].

810 Wang, S. Q., Dulaimi, M. F., and Aguria, M. Y. (2004). Risk Management Framework for
811 Construction Projects in Developing Countries. *Construction Management and Economics*,
812 22(3), 237-252.

813 World Bank Report (2013). Public Private Partnership Programme in Nigeria. Available from:
814 [http://wwwwds.worldbank.org/external/default/WDSContentServer/WDSP/AFR/2013/12/27/
815 090224b0821823a7/1_0/Rendered/PDF/Nigeria000Nige0Report000Sequence005.pdf].
816 [Accessed on 19th December, 2014].
817
818 Yin, R. K. (1994). Case Study Research: Design and Methods (2nd ed.). Thousand Oaks, CA: Sage
819 Publication.

820 Yescombe, E. R. (2007). Public Private Partnership: Principles of Policy and Finance, 1st Edition.
821 Oxford: Elsevier Limited.