



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

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1 Public Private Partnerships (PPP) in the Developing World: Mitigating

2 Financiers' Risks

3 **Abstract:**

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

22
23 **Keywords:** Public Private Partnerships (PPP); Emerging Markets; Risks; Bankability,
24 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

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3 50 Kayaga (2008), expropriation and government repudiation of contracts seriously limited
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5 51 Africa's PPP growth, with 80% of PPP contracts attracting disputes and cancelled between
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7 52 1990 and 2004. Such cancellations usually have sustained impact on a nation's PPP initiative
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9 53 by dampening market confidence in government's commitments (Ncube, 2010).

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13 55 One of the fundamental aspect of PPP arrangements is full compliance with project's output
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15 56 specifications, performance contracts and concession termination clauses (Oyedele, 2013;
16
17 57 Khadaroo, 2014). However, given the relatively weak PPP culture, institutional and
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19 58 regulatory frameworks in many Sub-Sahara African economies, failures of compliance may
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21 59 create threats of concession related risks. With huge lender's investments usually at stake in
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23 60 PPPs, contractual infractions and consequent statutory deductions will jeopardize foreign
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25 61 financiers' investments on the such projects. Other important risk factors may emerge in form
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27 62 of legal or regulatory risks. In most cases, such risk arises in situations where construction or
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29 63 operations of PPPs contravene domestic laws of host nations, or problems relating to
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31 64 approval and permits of projects (Sachs *et al.*, 2007; Oyedele, 2013).

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35 66 The overall consequence of these identified country-specific risk factors on foreign
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37 67 financiers' investments in sub-Saharan African PPPs can be quite damaging. As such, a
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39 68 framework for evaluating the bankability of country-related risks in PPPs within an emerging
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41 69 market context has been canvassed (Olsson, 2002; Atmo and Duffield, 2014; Giannetti and
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43 70 Ongena, 2012). Albeit, enormous literatures abound on risks in PFI/PPP generally (Bing *et*
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45 71 *al.*, 2005; Eaton *et al.*, 2006; Hoffman, 2008; Quiggin, 2004; Hardcastle *et al.*, 2005;
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47 72 Hammami *et al.*, 2006; Khadaroo, 2014). However, much of these studies have focused on
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49 73 projects in advanced economies like UK, Australia, Canada, US etc. (Demirag *et al.*, 2011;
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51 74 Grimsey and Lewis, 2002; Bing *et al.*, 2005; Khadaroo, 2014). Although, few studies exist on
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3 75 risks in PPP in some emerging economies i.e. China, Indian, Turkey etc. (; Quiggin, 2004;
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5 76 Chan *et al.*, 2014; Sachs, 2007; Giannetti and Ongena, 2012), there is currently no research
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7 77 exploring the bankability of country-related risks in PPP projects in Sub Saharan Africa,
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9 78 especially from foreign financiers' perspectives. This therefore represents a significant gap in
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11 79 knowledge on which basis the current study emerged. The overall aim of this study is to
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13 80 investigate the bankability criteria and associated risk mitigation strategies used by foreign
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15 81 financiers to evaluate country-specific risks in PPP funding applications within emerging
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17 82 market context. The following objectives have been identified for the study:

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21 83 1. To identify relevant lenders' bankability criteria and existing risk mitigation strategies
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23 84 for evaluating sponsor risk, political, concession and regulatory risks in PPP loan
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25 85 applications in an emerging market.
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28 86 2. To confirm wider applicability and overall significance of the identified criteria
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30 87 towards influencing the bankability of country-specific risks in PPP funding
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32 88 applications.
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35 89 3. To propose a "Risk and Bankability" framework model that pairs country-specific
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37 90 risks with bankability criteria and risk mitigation strategies under a robust platform,
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39 91 towards aiding foreign lenders' bankability decision.

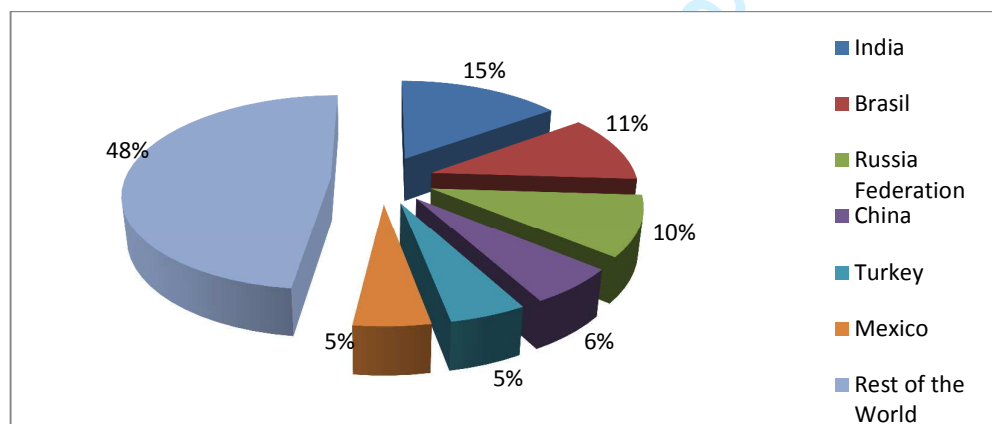
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42 92 The study adopts a mixed methodology approach to research (qualitative and quantitative). In
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44 93 other to identify relevant bankability criteria and risk mitigation strategies for evaluating
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46 94 country-specific risks in PPP loan applications in an emerging market, multiple case studies
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48 95 were investigated. The case studies comprised PPP projects in Nigeria that were financed
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50 96 with significant amount of foreign loans. Besides being an emerging market (classified by the
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52 97 World Bank as a MINT nation) and located in sub Saharan Africa, the choice of Nigeria for
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54 98 PPP case studies was based on her increasing portfolio of PPP projects in the region.

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3 99 Exploring the subjective views of foreign project financiers was therefore carried out via
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5 100 focus group discussions and document analysis. Wider applicability of the qualitative
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7 101 findings was confirmed using questionnaire survey to both local and international project
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9 102 financiers with involvement in Nigeria's PPP projects. A "Risk and Bankability" framework
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11 103 was thereafter developed from the overall findings and validated with new data from project
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13 104 financiers. This model provides a valuable mind-map for foreign financiers and project
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15 105 sponsors desirous of investing in PPPs in an emerging market. The paper is laid out under
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17 106 four major sections. Sections 2 and 3 focus on literature review. Section 4 discusses the
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19 107 research methodology and described the three PPP projects' used as case studies from
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21 108 Nigeria. Section 5 presents the qualitative and quantitative data analysis (from focus group
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23 109 discussions and questionnaire survey), while section 6 discusses the general findings from the
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25 110 study. The last section of the paper concludes the study.
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31 2.0 PFI/PPP Infrastructure Developments in Emerging Markets

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34 112 Since its proliferation in November, 1992 in the United Kingdom under the name Private
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36 113 Finance Initiatives (PFI), the application of PPP have crossed bilateral and multilateral
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38 114 borders with private sector-led developmental initiatives (Oyedele, 2013, Demirag *et al*;
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40 115 2011). According to Atmo and Duffield (2014), the last ten years have witnessed a significant
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42 116 drive towards private participation in the delivery of infrastructures especially in developing
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44 117 economies. The increasing provision of public utilities through public private partnerships
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46 118 have made vital infrastructures such as schools, prisons, hospitals, power plants, bridges, toll
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48 119 roads etc. possible in emerging economies. In a recent study by Hammami *et al.* (2006), the
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50 120 World Bank is reported to have estimated that 20% of global infrastructure investments
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52 121 amounting to US\$850billion were financed during the 1990s through the PPP strategy in
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54 122 emerging economies.
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3 123 Additionally, recent findings culled from Thomson Reuters PFI database confirmed that the
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5 124 volume of non-recourse project finance deals in emerging economies reached an all-time high
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7 125 in 2010. More than 200 deals were struck, with a total capital outlay of over US\$130bn
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9 126 across the BRICs (Brazil, Russia, India and China); Europe and the next frontier economies
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11 127 in Africa, Asia, Middle-East and Latin America. However, despite recent popularity, there
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13 128 are mixed fortunes for PPP in emerging markets, considering the significant differences in
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15 129 performances among the EM nations i.e. China, Hong Kong, Taiwan, India, Indonesia,
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17 130 Malaysia, the Philippines, Brazil, Singapore, Sub Saharan Africa etc. (Cavusgil, 1997;
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19 131 Ramamurti and Singh, 2009). Currently, Africa's public sectors still retain the lion's share of
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21 132 infrastructure financing (Briceño-Garmendia *et al.*, 2008). Whereas private-sector led
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23 133 infrastructure finance in Sub-Saharan Africa is still limited to about 5% -10% growth with an
24
25 134 annual \$48billion financing gap as at 2012 (IFC Report, 2013), the so-called BRIC nations
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27 135 accounts for 62% of private-sector led infrastructure investments, with 60% growth trend as
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29 136 at 2008 (Basilio, 2011). See Fig.1 below for distribution of investment in infrastructures
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31 137 among BRICs and other nations across the globe.
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50 139 *Fig.1 Geographical spread of investments in infrastructure projects in BRICs nations as at 2008* Source:
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52 140 **Basilio (2008)**
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3 141 From another perspective, PPP infrastructure procurement in Nigeria has gathered
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5 142 momentum in the last decade, with over 25 infrastructure projects being executed across state
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7 143 and federal levels (Solomon *et al*, 2015). Since the first wave of PPP projects in Nigeria
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9 144 which was kick-started with the rebuilding of the Murtala Mohammed Airport (MM2) project
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11 145 in 2003 (Ibem, 2010), several major infrastructure projects have been procured through PPP
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13 146 (Mudi *et al*, 2015). As of now, recent statistics show that about N10trillion has been invested
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15 147 in various PPP projects by different levels of government in the country (Solomon *et al*,
16
17 148 2015). However, despite the current efforts, Nigeria remains behind many other emerging
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19 149 market economies in terms of infrastructural deficit (New telegraph, March 21st, 2018).
20
21 150 Recent statistics suggest an annual infrastructure investment of between \$12 and \$15billion
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23 151 for the next six years is needed in order to meet Nigeria's growing infrastructural deficit
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25 152 (Emmanuel, 2016; New telegraph, March-2018).
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32 154 **3.0 Risk in PPP Infrastructures in Nigeria**

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35 155 In a study by Royal Society (1983, p.22) cited in Demirag *et al*. (2011), risk is described as
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37 156 the probability that a specific adverse event will happen at a particular period of time. Risk is
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39 157 also referred to as the possibility that an event, its resulting impact and dynamic interaction
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41 158 turns out against anticipated outcome (Bing *et al*, 2005). Wang *et al*. (2004) classified risks
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43 159 in PPP projects into internal and external risks. While internal risks are common with every
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45 160 project such as design risk, construction risk, operation and maintenance risks among others,
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47 161 external risks are negative uncertainties arising due to project's interaction with the
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49 162 environment. Examples of external risks in PPP projects include regulatory risk, concession
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51 163 risk, currency or foreign exchange risk, political or social uncertainties, reputational risk
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53 164 among others (Akintoye *et al*, 2015; Oyedele, 2013).
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166 According to Liu *et al.* (2016), although external risks abound in most projects regardless of
167 where they are being delivered, the severity of external uncertainties is higher in emerging
168 market PPP projects. For example, a country like Nigeria which is an emerging economy and
169 currently at the lower-level of PFI/PPP maturity model has been bedevilled by a lot of
170 country-related risk factors (Osei and Chan, 2015). As argued by Akintoye *et al.* (2015), apart
171 from challenges of packaging bankable PPP projects, Nigeria is faced with problems like
172 politicization of concession contracts, non-competitive bidding, and land acquisition
173 problems. In another related study, Opawole and Jagboro (2016) bemoaned the lack of
174 demarcation of responsibilities among parties in Nigeria's PPP projects. According to them,
175 Poor clarity in duties results in government performing the duties of private contractors
176 which may lead to project failure (Opawole and Jagboro, 2016). While examining barriers to
177 PPP development in Nigeria, Solomon *et al.*, (2015) also suggested foreign exchange risk,
178 high country risk perception, weak risk assessment and management as challenges that need
179 improvement in order to strengthen Nigeria's PPP market. Dominic *et al.* (2015) argued for
180 better risk allocation that will strengthen service efficiency, including adequate risk transfer
181 to the private sector party for successful PPP implementation in Nigeria. Similarly, Salawu
182 and Fadhlin (2015), whilst assessing risk management maturity of Nigerian PPP contractors
183 condemned the overall risk management maturity level of local contractors. According to the
184 authors, higher risk assessment maturity level is needed to enable improved project
185 performance and reduced uncertainties in project outcomes. Kwofie *et al.* (2016) aligned with
186 above perspective by suggesting effective risk assessment and stakeholder analysis as
187 essential factors for improving the low social acceptability of many Nigerian PPP projects.

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3 189 Albeit, Nigeria's Infrastructure Concession Regulatory Commission (ICRC) at the federal
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5 190 level, including some few states (Lagos, Rivers, Cross-River etc.) have made serious strides
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7 191 in some aspects of PPP such as project development and preparation, regulation and market
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9 192 awareness. However, more needs to be done in terms of, not only improving Nigeria's
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11 193 infrastructure portfolio, but also the investment climate for PPP financing to thrive. As such,
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13 194 attracting foreign financiers to PPP opportunities in Nigeria will require more effective
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15 195 approaches in areas of enabling risk awareness, identification, assessment and management.
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17 196 This will ultimately have huge impact on PPP growth in Nigeria and also ensure that more
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19 197 bankable projects that can attract both local and foreign investors are packaged.
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199 **4.0 Methodology**

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

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3 214 Jones, 2004), purposive sampling strategy involves deliberate search for informants, based on
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5 215 defined qualities that they possess (Yin, 1994). This sampling approach allowed the research
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7 216 team to leverage on her network of contacts within Nigeria's PPP industry to identify
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9 217 participants and access suitable PPP case studies. Studies such as Grimsey and Lewis (2002),
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11 218 Oyedele (2013); Bing *et al.* (2005) and Eaton (2006) have all adopted similar sampling
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13 219 method within the realm of PFI/PPP literatures.
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18 221 In more specific terms, the study considered the following criteria in selecting appropriate
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20 222 PPP projects' case studies for the research:

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22 223 i. Selection of Nigerian PPP projects wholly or partly financed by international
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24 224 financiers.
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26 225 ii. Availability of evidence-based financing decisions right from funding applications
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28 226 stage by project sponsors, up till financiers' decision to fund the project;
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31 227 iii. willingness of financiers' team to partake in the study; and
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33 228 iv. Availability of at least three accessible informants (experienced staff in foreign
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35 229 lenders' project finance team), who have been centrally involved in reviewing the
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37 230 PPP funding applications of the selected PPP projects' case studies.
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39 231 v. Study to examine any three PPP projects executed in Nigeria between 2003 until
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41 232 2014.
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45 234 Based on the above criteria, the three case studies that fulfilled the requirements were a PPP
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47 235 Power Project in South West Nigeria, a PPP Seaport Expansion and Maintenance Project in
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49 236 South West Nigeria and a PPP Hospital Project in South-South of Nigeria. While the PPP
50
51 237 power project is a 10-year concession valued at \$25.5 million, the seaport expansion project
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53 238 was contracted on 25-year concession with a project value of \$60 million. The hospital
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55 239 project in South-South Nigeria is a 10-year concession project with a value of \$37 million
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3 240 (see Table 1 for the nature and attributes of the three PPP case study projects). Going further,
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5 241 after careful selection of the case studies and research participants, the study conducted three
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7 242 (3) focus group discussions which were supported with evidences from loan documentations
8
9 243 from project financiers' for qualitative data collection (also see Table 1 for attributes of focus
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11 244 group discussion participants). This was achieved after reaching a non-disclosure agreement
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13 245 with the project financiers especially restrictions with respect to revealing vivid information
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15 246 capable of giving out the financiers identity as well as detailed project description.
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17 247 Participants in the focus group discussions comprised financial risk managers, senior credit
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19 248 analysts, heads of structured finance divisions etc. While the focus group discussions
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21 249 facilitated in-depth understanding of lenders' shared opinions concerning the phenomenon,
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23 250 less-sensitive loan documentations were used to confirm the claims made by financiers
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25 251 during the focus group discussions. The focus group discussions lasted an average of 55mins
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27 252 and were tape recorded, transcribed and later analysed using Nvivo10 Software. Various
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29 253 codes and nodes were assigned to different emergent themes within the data while carrying
30
31 254 out a thorough thematic analysis. Twenty-two (22) criteria relevant for evaluating the
32
33 255 bankability of sponsor risk, political, legal and concession risks were unravelled. This was in
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35 256 addition to identifying some risk mitigation strategies used by project sponsors in most loan
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37 257 applications. Other sub-risk components emerging from the major risk factors during the
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39 258 process of due diligence appraisal were also uncovered.
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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
<i>No. of Participants</i>	3	2	4
<i>Average Experience in Emerging Market PPP financing</i>	7	5	8
<i>Average PFI/PPP Experience in Nigeria</i>	3	3	6
Project Types involved in by lenders:			
▪ <i>Power Project</i>	1	1	2
▪ <i>Road Project</i>	2	2	3
▪ <i>Port Project</i>	1	1	1
▪ <i>Hospital Project</i>	2	1	2
Project Nature and Description	<p><u>Power Project</u></p> <p>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%.</p>	<p><u>Sea Port Expansion Project</u></p> <p>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.</p>	<p><u>Hospital Project</u></p> <p>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.</p>

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3 263 The second phase of the study involved questionnaire survey developed from findings from
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5 264 the focus group discussions and loan documentations. This ensured validity and wider
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7 265 applicability of results from the qualitative findings (Oyedele, 2013). The survey targeted
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9 266 wider audiences of local and international project financiers who have been involved in
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11 267 structuring financial packages for PPP projects in Nigeria. Questionnaires were distributed
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13 268 using a snowball sampling approach. As such, the research team built on referrals from their
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15 269 existing contacts among local and international project financiers as well as other subject
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17 270 matter experts involved in PPP financing in Nigeria. The survey respondents comprised
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19 271 senior lenders, financial consultants and infrastructure finance and investment firms. A pilot
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21 272 study involving three separate financiers and two academics with an average of 7years prior
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23 273 experience in PFI/PPP project finance was conducted. The study implemented their
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25 274 feedbacks, which included shortening of sentences and rewording of questions to develop the
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27 275 final questionnaire. In the final questionnaire, respondents were asked to rank the perceived
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29 276 importance of each identified criterion on the bankability of the country-specific risks in PPP
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31 277 funding applications from an emerging market. This was done with the aid of a five-point
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33 278 Likert Scale in which; 5 represented “Most Important” while 1 represented “Not Important”.
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39 280 The questionnaire survey was distributed to respondents via email and was accompanied by a
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41 281 letter of introduction detailing the objective of the study. Two hundred and fifty (250)
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43 282 questionnaires were distributed in all, out of which 173 were returned after several reminder
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45 283 emails from June 2013 to March 2015. The rate of response represents 69.2% of total
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47 284 distributed questionnaires. The return rate was considered suitable for analysis owing to the
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49 285 claim by Oyedele (2013) that survey results lower than 30 to 40% could be considered of
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51 286 little significance and biased. Out of the returned questionnaires, twenty-seven (27) were
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53 287 incomplete and so rejected, leaving us with 146 (58%) usable questionnaires from senior
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3 288 lenders, infrastructure finance experts and financial advisory consultants. Among the
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5 289 questionnaire respondents, 71 were senior lenders, 49 of them were infrastructure finance
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7 290 experts while the remaining 26 were financial advisory consultants (see Table 2 for
8
9 291 demographics of survey respondents). On average, all the respondents have 11.7years of
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11 292 experience in project financing in emerging economies. With the aid of Statistical Package
12
13 293 for Social Sciences (SPSS), the result of the survey was analysed. Reliability analysis to
14
15 294 determine whether the variables were true measures of the construct was carried out. This
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17 295 was then followed by correlation analysis and significance index ranking to ascertain the
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19 296 subjective importance (based on lenders' perception) of each bankability criterion identified
20
21 297 in the study. Results from the study were later used to develop a "Risk and Bankability
22
23 298 Framework". However, in order to ensure reliability and validity of the proposed framework
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25 299 model, the study validated it with three new PPP Projects in Nigeria. The three projects
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27 300 comprised a \$25 million Waste to Energy PPP project in south west of Nigeria, a \$703
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29 301 million BOT Bridge project in South East/South-South of Nigeria as well as a \$150 million
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31 302 PPP port project in South West Nigeria. Using snowball sampling, the research team built on
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33 303 referrals from their exiting contacts to access new international project finance experts
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35 304 involved in these projects. The study obtained less-sensitive loan documentations from the
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37 305 financiers to validate the model.
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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

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3 325 and regulatory risks were unravelled (see, Table 3 for bankability criteria and some
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5 326 mitigations strategies for evaluating country-related risks in PPPs). These bankability criteria,
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7 327 as argued by most focus group discussants, are crucial towards influencing bankability of the
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9 328 identified risks and foreign lenders' loan approval for PPPs in an emerging market.

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14 330 In addition, the qualitative analysis also produced a couple of existing risk mitigation
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16 331 strategies often put forward by project sponsors in PPP loan applications in emerging
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18 332 economies, coupled with various sub-risk components resulting from the four major risk
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20 333 factors (Sponsors risk, political, concession and regulatory risk). According to many of the
21
22 334 participants, where PPP loan applicants had offered risk mitigations that are not considered
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24 335 critical to bankability by the lenders, such mitigation strategy only give "more advantage" to
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26 336 the lenders. However, the important bankability criteria to lenders are clearly and explicitly
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28 337 requested from project sponsors (See Table 3).

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31 338 *Table 3: Analysis of Lenders' Bankability Criteria Adopted for Evaluating for Case Studies*

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

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)
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.

345 5.2 Quantitative Data Analysis

346 *Reliability Analysis*

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

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

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

367
368**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

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370 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

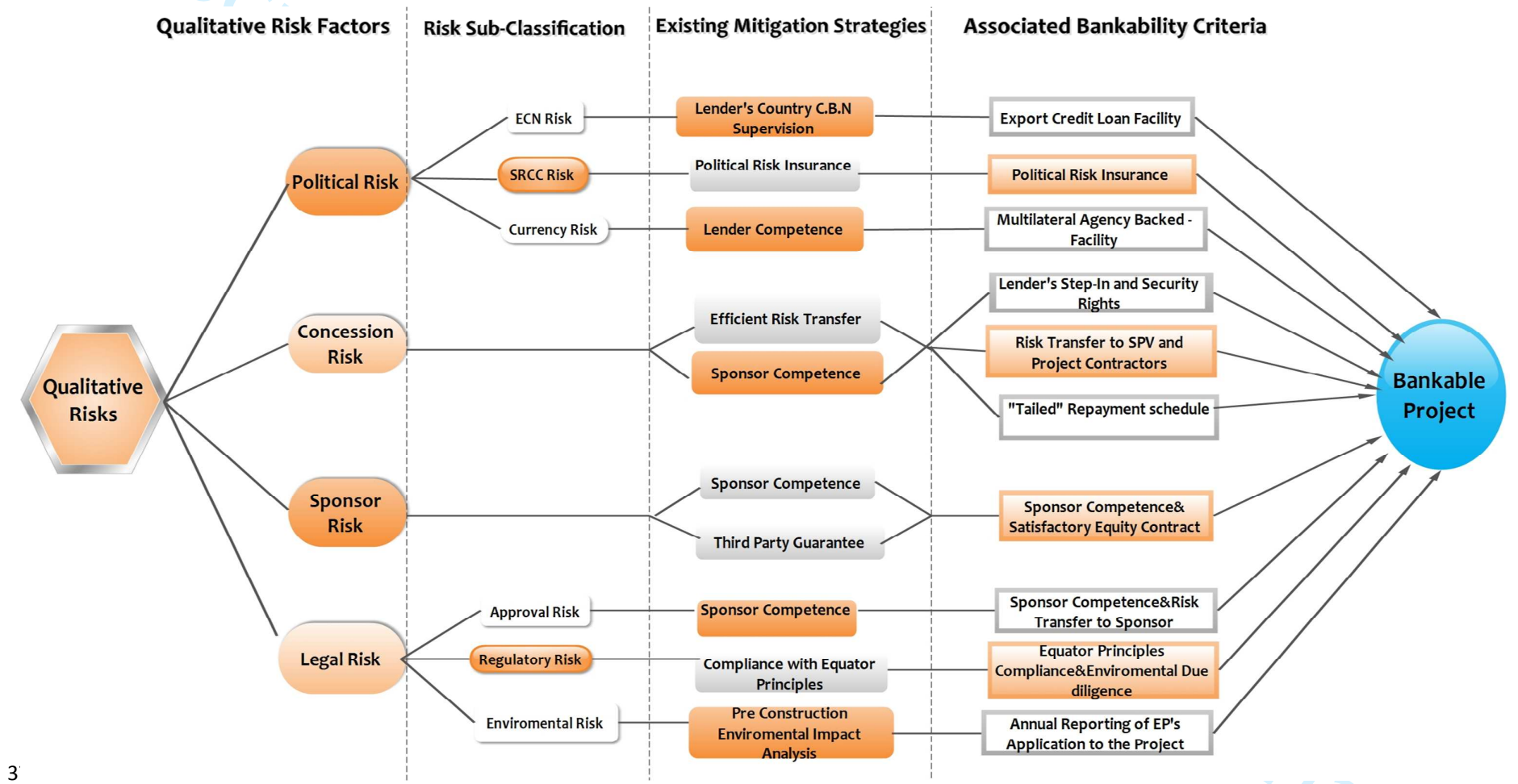


Fig.2: Framework for Risks, Mitigation Strategies and Associated Bankability Criteria

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

388 **Significance Index Ranking**

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

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

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

397 significance index calculation, the linear five-point Likert scale used in the questionnaire is
398 converted into a percentage scale. As such, 0% represents the lowest, while 100% represents the
399 highest significance value achievable. This indicated that the Likert scale values of 1, 2, 3, 4, and 5
400 have significance indexes of 0, 25, 50, 75, and 100, respectively. Based on the survey analysis,
401 significance index (SI) values were produced for the 22 bankability criteria ranging from 85.32 to
402 51.24 (see Table 8 for bankability criteria's significance index ranking). The top seven most
403 significant bankability criteria with an overall index ranking of moderately significant or SI value of
404 ≥ 75.00 across the four country-specific risks are:

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

416 6.0 Discussion of Findings

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

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3 421 The significance ranking of each criterion towards determining the bankability of country-specific
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5 422 risks in PPP loan applications was calculated. Evidences from the questionnaire survey, as shown in
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7 423 Table 4 above, were corroborated with findings from the focus group discussions with financiers
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9 424 (See Table 3 and 4). Results from the study were used to construct a “Risk and Bankability
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11 425 Framework” and validated with new data set from project financiers (see Fig.2. for Risk and
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13 426 Bankability Framework).

16 17 427 **6.1. Sponsor Risk and Associated Bankability Criteria**

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20 428 Evidences from the study, as reflected in Table 3, revealed sponsor risk is inherent in the three PPP
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22 429 case studies investigated. Focus Group Discussion (FGD) participants referred to sponsor risk
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24 430 analysis as a “smell test” that must be conducted by lenders before loans are granted. In evaluating
25
26 431 sponsor risk in PPP loan applications within emerging market context, lenders consider the
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28 432 “**competence of the project sponsors**” to be crucial to bankability. This is based on results from the
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30 433 questionnaire survey, which shows a high significance index ranking of 85.10, in terms of its
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32 434 influence on bankability of sponsor risk (see Table 4). The result confirms findings from the FGD
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34 435 captured in the views of one of the participants who argued that:

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38 436 *“Foreign lenders will consider factors like sponsor’s identity, sponsors’ credit background,*
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40 437 *the sponsor’s financial strength, the sponsor’s history of corporate dealings, probability of*
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42 438 *default etc.”*

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45 439 The above assertions highlights Atmo and Duffield (2014) as well as Hoffman (2008) who argue that
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47 440 the fact that project finance loans are granted to a newly formed Special Purpose Vehicle (SPV) does
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49 441 not suggest lenders are not interested in the identity and credit history of project sponsors. Rather, the
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51 442 profile of the project sponsors or any prior banking relationship with the lender will play a crucial
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53 443 role in addressing possible information asymmetry. Another important bankability criterion for
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55 444 evaluating sponsor risk, based on results from the survey, is the “**existence of Pre-completion**

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3 445 **guarantee or full-financial guarantee presented by project sponsors**". Evidences in Table 4 show
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5 446 a significance index ranking of 84.11, indicating high lenders' perception of the criterion towards
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7 447 influencing lenders bankability decision. The result buttresses suggestions from some of the FGD
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9 448 participants who argued that, where lenders are not satisfied with the credit risk profile of a project
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11 449 sponsor:

14 450 *"In such cases a foreign bank will demand credit risk enhancements such as Pre-completion*
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16 451 *Guarantee, full-financial Guarantee, third party guarantee or even a bank-financed*
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18 452 *guarantee, for better considerations."*

21 453 This is in line with Hoffman (2008) and Mills (2010) who opined that, to foreign lenders, credit
22
23 454 guarantee serves as collateral against project incompleteness. Hence, the presence of such facilities in a
24
25 455 PPP loan application will improve the bankability of such funding applications from foreign
26
27 456 financiers' perspectives (Grimsey and Lewis, 2002). According to Yescombe (2007) and Mills
28
29 457 (2010), credit risk enhancement may become crucial to lenders where the sponsors have weak credit
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31 458 quality or have no prior experience in project financing arrangements. In addition, going by findings
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33 459 revealed in Table 3, another crucial bankability criterion used for evaluating sponsor risk in PPP loan
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35 460 applications from an emerging market is the **"sponsors' equity case"**. Relying on survey findings
36
37 461 which show a significance ranking of 84.03 for this criterion (see Table 4), the share of equity
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39 462 contribution of projects sponsors must be satisfactory to lenders. As confirmed by FGD findings,
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41 463 participants' argue that:

44 464 *"It is also important to consider the debt equity ratio on offer. This is because; the amount*
45
46 465 *of equity to be injected into the project by the sponsor team and the timing of such injection*
47
48 466 *will also influence foreign funding decision"*.

51
52 467 Studies such as Demirag *et al.* (2011), Al-Khattab *et al.* (2007) and Mills (2010) have confirmed the
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54 468 above claim and argued that the amount of equity contribution of sponsors will determine the extent
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56 469 of the lenders' funding, her recourse as well as the loan price during due diligence appraisal.

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3 470 According to Hoffman (2008), lenders believe that, the more the sponsor's equity at stake in PPP
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5 471 projects, the higher the commitment and the lesser the possibility of walking away in case the project
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7 472 encounters challenges.

9 10 473 **6.2 Country/Political Risk and Associated Bankability Criteria**

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12 474 Going by evidences from the study, political risk was considered very important in the three PPP
13
14 475 projects' case studies investigated. As shown in the results from the questionnaire survey (see Table
15
16 476 3 and 4), an important bankability criterion for evaluating political risk in PPP loan applications is
17
18 477 the "**transfer of political risk to Export credit agencies**". The high significance ranking of the
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20 478 criterion (85.32) confirms lenders' strong perception of its influence on the bankability of political
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22 479 risk in PPPs, especially from an emerging market context (see Table 4). This perspective was also
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24 480 highlighted by discussants in some of the focus group discussions.

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28 481 *"Definitely, Export Credit Agency (ECA) assisted facility has got high bankability potentials.*

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30 482 *Foreign Banks can be sure their political risk exposure is covered to a significant level".*

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34 483 In buttressing the above perspective, Matsukawa and Habeck (2007) argued that, ECAs are
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36 484 providing a new source of long-term finance for infrastructures especially in the emerging BRICs
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38 485 nations. This helps reduce cost of lending to critical infrastructures, while international lenders are
39
40 486 able to transfer political risks in projects to the public financial agencies. However, according to
41
42 487 Giannetti and Ongena (2012), in practice, ECAs do not provide "Full Risk Transfer" to lenders
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44 488 because certain percentage of the project loan (5%-10%) is usually uncovered under the ECAs'
45
46 489 political risk guarantee. In addition, going by findings from the survey as well as the focus group
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48 490 discussions, the involvement of "**Multilateral Agencies (MLA)**" such as the World Bank usually
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50 491 enhances the potentials of indigenous investors' loan applications. Evidences from the survey
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52 492 revealed high lenders perception with a significance index of 85.21, concerning the important role of
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3 493 MLAs in providing political risk cover for PPPs in emerging markets. This buttressed the
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5 494 perspectives of many FGD participants, who opined that:

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8 495 *“Many PPP projects in these (developing) economies are often World Bank and IFC (International*
9
10 496 *Finance Corporation) assisted....especially Africa And that’s good for us as an international*
11
12 497 *lender since it provides much guarantee against the common political risk situations in many of*
13
14 498 *these (emerging) places.*

15
16
17 499 This view has been confirmed by Hoffman (2008) and Ramamurti (2009) who suggested that MLAs
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19 500 provide some form of political risk guarantees for participating banks in order to encourage
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21 501 financing. This is evidenced by the “Preferred Creditor’s Status” usually granted banks collaborating
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23 502 with MLAs in financing a project. Such involvement of international development financier boosts
24
25 503 the bankability consideration of a prospective PPP project (Delmon, 2011). Further findings from
26
27 504 FGD participants as reflected in Fig. 4 above, identified three sub-risk components, which often
28
29 505 spinout from political risk and are thus inter-dependent:

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33 506 *“We could classify political risk into (i) Expropriation, Confiscation and Nationalisation*
34
35 507 *(ECN) risk, (ii) Strike, Riot, and Civil commotion (SRCC) (iii) and currency risk. And you*
36
37 508 *will agree with me that, all the risks present various threats to lenders investments in such*
38
39 509 *projects”*

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41
42 510 According to Khoury and Zhou (1998), where a project host nation has high political risk index, any
43
44 511 of the above components may be responsible. In tackling these likely threats to lenders financial
45
46 512 stakes in projects, an important bankability criterion for lenders to consider is the “**Existence of**
47
48 513 **Private-Sector Political Risk Insurance Cover**”. This was confirmed by results from the survey,
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50 514 showing a significance index rating of 76.41, indicating high lenders’ perception. In what seemed
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52 515 largely a unanimous opinion, most FGD participants emphasized the importance of private-sector
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3 516 political risk insurance in financing PPPs in emerging market. As captured in the view of one of the
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5 517 participants:

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8 518 *“If foreign Banks were to finance such projects, depending on the country capacity of the project*
9
10 519 *host nation, we would definitely request a Private-Sector Political Risk Insurance Cover from would-*
11
12 520 *be project sponsors. This is one of the most common global best practices in international lending to*
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14 521 *projects. It does not have to be a PPP project before banks consider political risk insurance cover”.*

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16
17 522 Studies such as Hoffman (2008), Yescombe (2007), Atmo, and Duffield (2014) have confirmed these
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19 523 assertions. According to Yescombe (2007) and Hoffman (2008), private-sector political risk
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21 524 insurance cover may be in form of general insurance cover for a PPP project; or may be tailored to
22
23 525 the foreign lenders’ key concerns (Delmon, 2011). In situations where the insurance policy is
24
25 526 targeted at lenders’ specific concerns in the concession, any risk arising from events not mentioned
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27 527 in the insurance policy will not be reimbursed (Mills, 2010).

31 528 **6.3 Legal Risk and Associated Bankability Criteria**

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34 529 Going by evidences from the study, legal risk was important and was given high consideration by
35
36 530 financiers in the three case studies examined. As represented in the qualitative framework in Figure 2
37
38 531 above, the study identified three sub-risk factors that often emerge from legal risk: permit and
39
40 532 approval risk, regulatory risk and environmental risk. Based on evidences from the survey, the
41
42 533 bankability criterion **“existence of operational permit and approval from public sector”** is
43
44 534 considered most important in legal risk analysis. This is based on lenders’ perception with a
45
46 535 significance index rating of 85.01. Focus group discussants also highlighted the importance of
47
48 536 permit and approval to successful implementation of PPPs, as encapsulated in the views of one of the
49
50 537 discussants who argued that:

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52
53
54 538 *“One needs to determine whether such proposed project has got necessary permits and*
55
56 539 *approval from relevant government departments or agencies. Foreign banks will expect*

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3 540 *sponsors of projects to obtain legal and regulatory approvals for the construction and*
4
5 541 *operations of a project. Of course failure to obtain such results in delay in project start-up*
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7 542 *which will definitely distort financing plans”.*
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10 543 This view was buttressed by Wang *et al.* (2004) who argued that project grantor’s approval is
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12 544 essential to funding decision because most financiers will not fund any unapproved concession. As
13
14 545 such, sponsors are usually expected to present lenders with operational permits and approvals of
15
16 546 project, as a condition for funding approval. Additionally, in evaluating potential legal risks in a PPP
17
18 547 loan application from an emerging market context, results from questionnaire survey show that,
19
20 548 foreign lenders consider the **“environmental impact assessment of potential projects”** on host
21
22 549 communities, as very crucial to loan approval. This confirms the high significance index of the
23
24 550 criterion at 84.43, based on lenders perception. In supporting the above perspective, many
25
26 551 discussants in the focus groups opined that:

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29
30 552 *“International lenders will request project sponsors to present evidence of Environmental Impact*
31
32 553 *Assessment (EIA) report of the project. The EIA report details the potential impact of the project on*
33
34 554 *the host community. It’s important for banks to avoid litigation arising from environmental damage*
35
36 555 *to a project host community as this portends great danger to lenders funds”.*
37
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39

40 556 The above perspective is buttressed by Hoffman (2008), who suggested that, lenders are increasingly
41
42 557 becoming more environmentally aware of impacts of projects on host communities. As such, most
43
44 558 banks will seek to avoid a reputational risk that may arise due to negative publicity from
45
46 559 environmental pressure groups (Mills, 2010). This is more essential, especially where the project
47
48 560 host nations are outside the OECD nations and external risks to projects is often high (Yescombe,
49
50 561 2007). Further results from the survey also show a high significance index rating of 84.15 for
51
52 562 **“Compliance with Equator Principles”**. The significance index of the criterion confirms evidences
53
54 563 from focus group discussions, as captured in the views of one of the discussants who argued that:

1
2
3 564 *“We would have to also consider the project’s Compliance with Equator Principles (EPs). These*
4
5 565 *equator principles are World Bank’s global environmental best practices, and most international*
6
7 566 *lenders in OECD nations will request this as part of due diligence appraisal for funding approval.”.*
8
9

10 567 Existing literatures such as Amalric (2005), Gupta *et al.* (2002), Yescombe (2007), share this
11
12 568 perspectives and argued that, a common practice for most compliant banks in OECD nations is, to
13
14 569 insist on environmental impact assessment of proposed PPP projects. This is in line with global
15
16 570 environmental KPIs’ as prescribed by the Equator Principles (Gupta *et al.*, 2002). Equator Principles
17
18 571 (EPs) was introduced in 2003 in Washington DC after a consultation among select international
19
20 572 lenders and the International Finance Corporation (IFC) (Hardenbrook, 2007). With the EPs, key
21
22 573 Performance standards in terms of socio-environmental sustainability of project’s geographical
23
24 574 location were introduced in line with the World Bank health and Safety general guidelines (Giannetti
25
26 575 and Ongena, 2012).
27
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30 576 **6.4. Concession Risk and Associated Bankability Criteria**

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34 577 As represented in Table 3 above, evidences from the study indicate that, the lenders examined
35
36 578 concession risk when evaluating the three case studies under investigation. Based on results from
37
38 579 survey responses with respect to determining the bankability of concession risk in PPP loan
39
40 580 application within emerging market context (see Table 4), top on lenders’ criteria is unravelling the
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42 581 **“identity and powers of the project grantor”**. This is evidenced by the significance index rating of
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44 582 85.12 from survey analysis. FGD participants also share these perspectives, and this was captured in
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46 583 the view of a discussant who argued that:

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49 584 *“The identity of the Awarding Authority (project grantor) coupled with her capacity to*
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51 585 *grant concession approvals will be critically assessed before foreign banks commit funds to*
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54 586 *such PPP project”.*
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3 587 This perspective is in line with Mills (2010) and Delmon (2011) who argued that a project grantor
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5 588 must have the legal powers to contract a project on concession basis. The lack of such powers
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7 589 therefore, automatically invalidates the actions of the awarding authority and poses threats to the
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9 590 realization of the project. Giannetti and Ongena (2012) suggested that foreign lenders want to
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11 591 ascertain whether a project grantor enjoys implicit cooperation and supports of higher authorities in
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13 592 the project's host nation for her contractual activities. This enables lenders to envisage any potential
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15 593 clash of interests between the provisions of the concession and existing government laws in host
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17 594 nations (Sachs *et al.*, 2007). Additionally, further evidences from the survey as shown in Table 4
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19 595 revealed that, besides unravelling the identity and powers of the project grantor, foreign lenders
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21 596 considering emerging market PPP loan applications will also require **“direct legal contracts with**
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23 597 **the project grantor and other parties to the project”**. Based on significance index rating of 84.70,
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25 598 survey respondents consider this criterion important in evaluating concession related risks in an
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27 599 emerging market. This further attest to evidences from the qualitative study in which some focus
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31 600 group participants opined that:

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34 601 *“Usually you find banks having direct contractual agreement with awarding authorities and*
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36 602 *project sub-contractors in an emerging market PPP project. Obviously such agreements is*
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38 603 *to enable lenders protect her Secured Creditor's Rights with the authority, in case the*
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40 604 *concession is terminated”*.

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43 605 The above assertion is in line with Busse and Hefeker (2007) and Chan *et al.* (2014), who both
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45 606 argued that lender's direct agreements ensures that the contractual relationship between the SPV and
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47 607 other sub-contractors are in tandem with clauses and service level specifications stipulated in the
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49 608 concession contract. Such direct contract therefore puts lenders in the supervisory role, especially
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51 609 considering the high-leverage nature of PPPs and relative systemic instability in many of these
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53 610 regions.

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3 611 Further findings from the study also indicate that, as part of measures to ensure proper due diligence
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5 612 is taken on funding applications for PPPs in an emerging market; “**lenders will impose some**
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7 613 **security rights on the project SPV**”. Based on survey responses, the significance index rating of
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9 614 this criterion is 84.49. This suggest high lenders’ perception with respect to its influence on
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11 615 bankability of concession risk. The above evidence further confirms perspectives highlighted during
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13 616 some of the FGDs. As encapsulated in the argument of one of the discussants:

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16 617 *“You have to demand contractual security rights on PPP project assets, cash flows and*
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18 618 *other income generating contracts of the SPV. These are very important issues in bankability*
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21 619 *for most lenders to PPPs”.*

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24 620 Boeing and Kalidindi (2009) highlighted the above perspective and suggested that, in most instances
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26 621 lenders exercise security rights over assets and cash flows of PPPs in order to consolidate their
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28 622 positions in a project. This becomes more important in the event of project failure or concession
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30 623 termination by the awarding authority. Hence, such security rights help foreign lenders to mitigate
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32 624 the severity of any exposure at project default (Hoffman, 2008).

33 34 35 36 37 625 **7.0 Conclusion**

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40 626 Project finance stakeholders consider the bankability of country-related risks as essential for funding
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42 627 PPP projects in emerging markets. Bankability of project risk is even more crucial within Sub
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44 628 Saharan African context given the high country-risk perception which has hindered adequate foreign
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46 629 financing. This study embraced a mixed methodology approach to investigate four country-related
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48 630 risks prevalent in many emerging markets by using Nigerian PPP environment as context. The
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50 631 investigated risks included sponsor risk, political, legal and concession risks. Multiple case studies of
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52 632 three PPP projects in Nigeria were used to identify important bankability criteria for evaluating
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54 633 project loan applications within emerging market context. The qualitative strategy comprise focus
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3 634 group discussions (FGD) with foreign financiers in Nigeria’s existing PPPs, and loan document
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5 635 analysis which helped reveal 22 relevant bankability criteria. Going further the wider acceptability of
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7 636 the 22 bankability criteria were later confirmed using a questionnaire survey to wider audiences
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9 637 among foreign and local financiers in Nigeria’s PPP market. Statistical results of the survey revealed
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11 638 top seven (7) bankability criteria considered “very important” for winning foreign financiers’ loan
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13 639 approval for PPPs in emerging market. These include: BC7= Full Transfer of Political Risk to Export
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15 640 Credit Agency (ECA), BC10= Multilateral Agency-Backed Loan Facility, BC19= Identity of project
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17 641 grantor and her approval capacity must be known., BC1= Sponsors with track record of successful
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19 642 project financing, strong credit quality and financial capacity, BC12= Existence of operational permit
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21 643 and approval from the project grantor, BC17= Direct contractual agreement between lenders and
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23 644 project grantor, as well as other project contractors and sub-contractors respectively, and BC18=
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25 645 Security rights over SPV’s insurance policies, cash flows and other corresponding assets. Further
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27 646 findings from the study also revealed the complexity and true structure of certain risks in emerging
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29 647 markets PPPs, with the existence of sub-risk components (i.e. ECN, SRCC Currency, approval,
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31 648 environmental risk, approval risk, etc.). It is relevant to note that, most sub-risk components PPP
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33 649 evaluation often come as offshoots of many major risk factors during analysis. Hence, the occurrence
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35 650 of the major risks will automatically throw up other emerging risk components which require equal
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37 651 and careful bankability evaluation. Results from this study confirm a number of existing studies by
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39 652 arguing that, unless risks are matched with their bankability criteria and practical mitigation, the
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41 653 much needed clarity will be lacking especially in market where PPP growth is still nascent. Based on
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43 654 findings from the study a “Risk and bankability framework model” for assessing the four country-
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45 655 specific risks in PPP loan applications within an emerging market context was developed. The
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47 656 framework model pairs risk factors with various mitigation strategies as well as associated
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49 657 bankability criteria under a single platform. The study validated the model with another set of data
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51 658 from foreign project financiers and other subject matter experts with emerging market project
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3 659 financing experiences. As such, the framework model proposed in the study presents a valuable
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5 660 mind-map tool and checklist for foreign financiers including private investors interested in emerging
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7 661 market PPP projects. This result mirrors the perspective of Kayaga (2008), who suggested that the
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9 662 relative slow pace of PPP growth in Sub Saharan Africa can be attributed to huge hindrance posed by
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11 663 country-related risks to the bankability of indigenous PPP projects. Thus, results from the study
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13 664 represent critical parameters for winning foreign loan approval for PPP infrastructure projects within
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15 665 an emerging market context.
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21 667 Future studies should endeavour to widen the scope of this study. These include using more contexts
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23 668 to confirm the applicability of findings from the current study with respect to other emerging
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25 669 economies. It may also be very essential to explore the impact of public sector guarantee on the
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27 670 bankability of PPPs within emerging market context. Further empirical studies are also needed on
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29 671 how to avoid lenders' "call for event of default" in PPP projects, determinants of sponsors' equity
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31 672 contribution in typical project finance arrangements, and lenders' perspective to securitization in PPP
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33 673 projects among other things.
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8.0 References

- 674
675
- 676 Akintoye, A., Beck, M., & Kumaraswamy, M. (Eds.). (2015). Public private partnerships: A global
677 review. Routledge.
- 678 Al Khattab, A., Anchor, J., & Davies, E. (2007). Managerial Perceptions of Political Risk in
679 International Projects. *International Journal of Project Management*, 25(7), 734-743.
- 680 Amalric, F. (2005). The Equator Principles: A Step towards Sustainability. [Online]. *Center for*
681 *Corporate Responsibility and Sustainability*. [Accessed 3rd Feb, 2015].
- 682 Ameyaw, E. E., & Chan, A. P. (2015). Evaluation and ranking of risk factors in public-private
683 partnership water supply projects in developing countries using fuzzy synthetic evaluation
684 approach. *Expert Systems with Applications*, 42(12), 5102-5116.
- 685 Atmo, G. U., and Duffield, C. (2014). Improving Investment Sustainability for PPP Power Projects
686 in Emerging Economies: Value for Money Framework. *Built Environment Project and Asset*
687 *Management*, 4(4).
- 688 Babatunde, S. O., & Perera, S. (2017). Barriers to bond financing for public-private partnership
689 infrastructure projects in emerging markets: A case of Nigeria. *Journal of Financial*
690 *Management of Property and Construction*, 22(1), 2-19.
- 691 Babatunde, S. O., Opawole, A., and Akinsiku, O. E. (2012). Critical Success Factors in Public-
692 Private Partnership (PPP) on Infrastructure Delivery in Nigeria. *Journal of Facilities*
693 *Management*, 10(3), 212-225.
- 694 Basilio, M. (2011). Infrastructure PPP investments in Emerging Markets. [Online]. Available at
695 [[http://www.efmaefm.org/0EFMAMEETINGS/EFMA%20ANNUAL%20MEETINGS/2011-](http://www.efmaefm.org/0EFMAMEETINGS/EFMA%20ANNUAL%20MEETINGS/2011-Braga/papers/0337_update.pdf)
696 [Braga/papers/0337_update.pdf](http://www.efmaefm.org/0EFMAMEETINGS/EFMA%20ANNUAL%20MEETINGS/2011-Braga/papers/0337_update.pdf)]. [Accessed on 12th Feb, 2015].
- 697 Bekaert, G. and Harvey, C. R. (2002). Research in Emerging Markets Finance: Looking to the
698 Future. *Emerging Markets Review*, 3(4), 429-448.
- 699 Bing, L., Akintoye, A., Edwards, P. J. and Hardcastle, C. (2005). The Allocation of Risk in PPP/PFI
700 Construction Projects in the UK. *International Journal of project management*, 23(1), 25-35.
- 701 Briceño-Garmendia, C., Smits, K., and Foster, V. (2008). Financing Public Infrastructure in Sub-
702 Saharan Africa: Patterns and Emerging issues. *AICD Background Paper*, 15(1).
- 703 Boeing Singh, L. and Kalidindi, S. N. (2009). Criteria Influencing Debt Financing of Indian PPP
704 road projects: A Case Study. *Journal of Financial Management of Property and Construction*,
705 14(1), 34-60
- 706 Busse, M. and Hefeker, C. (2007). Political Risk, Institutions and Foreign Direct Investment.
707 *European journal of political economy*, 23(2), 397-415.
- 708 Cavusgil, S. T. (1997). Measuring the Potential of Emerging Markets: An Indexing Approach.
709 *Business Horizons*, 40(1), 87-91.

- 1
2
3 710 Chan, A. P., Lam, P. T., Wen, Y., Ameyaw, E. E., Wang, S. and Ke, Y. (2014). Cross-Sectional
4 711 Analysis of Critical Risk Factors for PPP Water Projects in China. *Journal of Infrastructure*
5 712 *Systems*.
- 6
7 713 Creswell, J. W. (2013). *Research design: Qualitative, Quantitative, and Mixed Methods Approaches*.
8 714 Sage Publications.
- 9
10 715 Coviello, N. E., and Jones, M. V. (2004). Methodological Issues in International Entrepreneurship
11 716 Research. *Journal of Business Venturing*, 19(4), 485-508.
- 12
13 717 Delmon, J., (2011). *Public-Private Partnership Projects in Infrastructure: An Essential Guide for*
14 718 *Policy Makers*. New York: Cambridge university press.
- 15
16 719 Demirag, I., Khadaroo, I., Stapleton, P., and Stevenson, C., (2011). Risks and the Financing of PPP:
17 720 Perspectives from the Financiers. *The British Accounting Review*, 43 (2011) 294-310.
- 18
19 721 Dominic, M. U., Ezeabasili, A. C. C., Okoro, B. U., Dim, N. U., & Chikezie, G. C. (2015). A review
20 722 of Public Private Partnership on some development projects in Nigeria. *International Journal of*
21 723 *Application Innovation in Engineering & Management*, 4(3).
- 22
23 724 Eaton, D., Akbiyikli, R. and Dickinson, M. (2006). An Evaluation of the Stimulants and
24 725 Impediments to Innovation within PFI/PPP projects. *Construction Innovation: Information,*
25 726 *Process, Management*, 6(2), 63-67.
- 26
27
28 727 Feagin, J. R., Orum, A. M., and Sjoberg, G. (Eds.). (1991). *A case for the case study*. UNC Press
29 728 Books.
- 30
31 729 Field, A. (2005). *Discovering Statistics using SPSS*. 2nd Ed., Sage Publications, London.
- 32
33 730 George, D. and Mallery, M., (2003). *Using SPSS for Windows Step-by-Step: A Simple Guide and*
34 731 *Reference*. Boston, MA: Allyn y Bacon.
- 35
36 732 Giannetti, M. and Ongena, S. (2012). "Lending by Example": Direct and Indirect Effects of Foreign
37 733 Banks in Emerging Markets. *Journal of International Economics*, 86(1), 167-180.
- 38
39 734 Grimsey, D., and Lewis, M., (2002). "Evaluating the Risks on Public Private Partnerships for
40 735 Infrastructure Projects". *International Journal of Project Management*, Vol. 20, pp 107-118.
- 41
42 736 Gupta, P., Lamech, R., Mazhar, F. and Wright, J. (2002). Mitigating Regulatory Risk for Distribution
43 737 Privatization: The World Bank Partial Risk Guarantee. *Energy & Mining Sector Board*
44 738 *Discussion Paper*. Series, (5).
- 45
46 739 Gutman, J., Sy, A., & Chattopadhyay, S. (2015). Financing African infrastructure: Can the world
47 740 deliver?.
- 48
49 741 Hammami, M., Ruhashyankiko, J. F. and Yehoue, E. B. (2006). Determinants of public-private
50 742 partnerships in infrastructure. [Online]. *International Monetary Fund*. Available at
51 743 [<https://www.imf.org/external/pubs/ft/wp/2006/wp0699.pdf>]. [Accessed on 16th Feb, 2015].
- 52
53
54 744 Hardcastle, C., Edwards, P. J., Akintoye, A. and Li, B. (2005). Critical Success Factors for PPP/PFI
55 745 Projects in the UK Construction Industry: A Factor Analysis Approach. *Construction*
56 746 *Management and Economics*, 23(5), 459-471.

- 1
2
3 747 Hoffman, S.L., (2008). *The Law and Business of International Project Finance*, 3rd edition. New
4 748 York: Cambridge University press.
- 5
6 749 Ibem, E. O. (2010). An Assessment of the Role of Government Agencies in Public-Private
7 750 Partnerships in Housing Delivery in Nigeria. *Journal of Construction in Developing Countries*,
8 751 15(2), 23-48.
- 9
10 752 International Finance Corporation Report (2013). *Advisory Services in Public Private Partnerships in*
11 753 *Sub Saharan Africa*. Available online
12 754 [www.ifc.org/wps/wcm/connect/.../RegionalFactsheet_Africa.pdf?MOD..]. [Accessed on 3rd
13 755 Jan, 2015].
- 14
15 756 Kayaga, S., (2008). *Public-Private Delivery of Urban Water Services in Africa*.
- 16
17 757 Kennedy, M. M. (1979). Generalizing from Single Case studies. *Evaluation Review*, 3(4), 661-678.
- 18
19 758 Khadaroo, I. (2014) The Valuation of Risk Transfer in UK School Public Private Partnership
20 759 Contracts. *The British Accounting Review*, 46(2), 154-165.
- 21
22 760 Khoury, S. J. and Zhou, C. (1998). Country Risk: Existing Models and New Horizons. *Handbook of*
23 761 *International Banking*, 13. 327.
- 24
25 762 Kwofie, T. E., Afram, S., & Botchway, E. (2016). A critical success model for PPP public housing
26 763 delivery in Ghana. *Built Environment Project and Asset Management*, 6(1), 58-73.
- 27
28 764 Liu, T., Wang, Y., & Wilkinson, S. (2016). Identifying critical factors affecting the effectiveness and
29 765 efficiency of tendering processes in Public-Private Partnerships (PPPs): A comparative
30 766 analysis of Australia and China. *International Journal of Project Management*, 34(4), 701-716.
- 31
32 767 Merriam, S. B. (1998). *Qualitative Research and Case Study Applications in Education*. Revised and
33 768 Expanded from "Case Study Research in Education.". Jossey-Bass Publishers, 350 Sansome St,
34 769 San Francisco, CA 94104.
- 35
36 770 Mills, S., (2010). "The Mechanics of Project Finance". *Institute for International Research (IIR)*,
37 771 Limited, U.K.
- 38
39 772 Mudi, A., Lowe, J., & Manase, D. (2015). Conceptual Framework for Public-Private Financed Road
40 773 Infrastructure Development in Nigeria. *International Journal of Engineering Research &*
41 774 *Technology*, 4(8), 586-590.
- 42
43 775 Ncube, M., (2010). Financing and Managing Infrastructure in Africa. *Journal of African Economies*,
44 776 19(suppl 1), pp.i114-i164.
- 45
46 777 Noor, K. B. (2008). Case study: A Strategic Research Methodology. *American Journal of Applied*
47 778 *Sciences*, 5(11), 1602.
- 48
49 779 Nunnally, J. (1978) *Psychometric Theory*. New York: McGraw-Hill.
- 50
51 780 Olsson, C. (2002). *Risk Management in Emerging Markets*. *Financial Times and Prentice Hall*,
52 781 London.
- 53
54
55
56
57
58
59
60

- 1
2
3 782 Oyedele, L., (2013). "Avoiding Performance Failure Payment Deductions in PFI/PPP Projects:
4 783 Model of Critical Success Factors". *Journal of Performance of Constructed Facilities*, Volume
5 784 27, Issue 3 (June 2013), pp. 283–294.
- 6
7 785 Osei-Kyei, R., & Chan, A. P. (2015). Review of studies on the Critical Success Factors for Public–
8 786 Private Partnership (PPP) projects from 1990 to 2013. *International Journal of Project*
9 787 *Management*, 33(6), 1335-1346.
- 10
11 788 Quiggin, J. (2004). Risk, PPPs and the Public Sector Comparator. *Australian Accounting Review*,
12 789 14(33), 51-61.
- 13
14 790 Ramamurti, R. and Singh, J. V. (Eds.) (2009). *Emerging Multinationals in Emerging Markets*.
15 791 Cambridge University Press.
- 16
17 792 Royal Society. (1983). *Risk Assessment: Report of a Royal Society study group*. London: Royal
18 793 Society.
- 19
20 794 Sachs, T., Tiong, R. and Wang, S. Q. (2007). Analysis of Political Risks and Opportunities in Public
21 795 Private Partnerships (PPP) in China and Selected Asian Countries: Survey Results. *Chinese*
22 796 *Management Studies*, 1(2), 126-148.
- 23
24 797 Spector, P.E., 1992. *Summated Rating Scale Construction: An introduction* (No. 82). Sage.
- 25
26 798 Spillane, J.P., Oyedele, L.O., and von Meding, J. (2012) Confined Site Construction. *Journal of*
27 799 *Engineering, Design and Technology*. 10(3), pp. 397–420. doi:10.1108/17260531211274747.
- 28
29 800 Tam, C.M., Deng, Z.M., Zeng, S.X., and Ho, C.S. (2000) Quest for Continuous Quality
30 801 Improvement for Public Housing Construction in Hong Kong, *Construction Management and*
31 802 *Economics*, 18(4), pp. 437–446. doi:10.1080/01446190050024851.
- 32
33 803 Santos, J.R.A., (1999). Cronbach's Alpha: A Tool for Assessing the Reliability of Scales. *Journal of*
34 804 *Extension*, 37(2), pp.1-5.
- 35
36 805 Stake, R. E. (2013). *Multiple Case Study Analysis*. Guilford Press.
- 37
38 806 Vetiva, (2011). *Construction Industry Report: A Haven of Opportunities*. [Online] A publication of
39 807 VETIVA Capital Management Limited. Accessed [18 February, 2015].
- 40
41 808 Wang, S. Q., Dulaimi, M. F., and Aguria, M. Y. (2004). Risk Management Framework for
42 809 Construction Projects in Developing Countries. *Construction Management and Economics*,
43 810 22(3), 237-252.
- 44
45 811 World Bank Report (2013). *Public Private Partnership Programme in Nigeria*. Available from:
46 812 [[http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/AFR/2013/12/27/](http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/AFR/2013/12/27/090224b0821823a7/1_0/Rendered/PDF/Nigeria000Nige0Report000Sequence005.pdf)
47 813 [090224b0821823a7/1_0/Rendered/PDF/Nigeria000Nige0Report000Sequence005.pdf](http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/AFR/2013/12/27/090224b0821823a7/1_0/Rendered/PDF/Nigeria000Nige0Report000Sequence005.pdf)].
48 814 [Accessed on 19th December, 2014].
- 49
50 815
51 816 Yin, R. K. (1994). *Case Study Research: Design and Methods* (2nd ed.). Thousand Oaks, CA: Sage
52 817 Publication.
- 53
54 818 Yescombe, E. R. (2007). *Public Private Partnership: Principles of Policy and Finance*, 1st Edition.
55 819 Oxford: Elsevier Limited.