

South-South Collaborations: A Policy Recommendation Model for Sustainable Win-Win Infrastructure Partnerships Based on Sino - Ghana and Nigeria Case.

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Abstract: Infrastructure procurement has been a major engagement route between China and Africa. This contributes immensely to the gradual infrastructure development seen on the continent. However, maturing discourse purports that these infrastructure collaborations lack intentionality in the continuous development of strategic guidelines and policies for effective implementation despite their uniqueness and criticality. This study proposes that an efficient approach to policy recommendations is through the political and economic analysis (PEA) of these partnerships using public-private partnership (PPP) optics. Unquestionably, these partnerships are representative of the concept of diplomatic transnational public-private partnership (DT-PPP) where infrastructure is procured through the collaboration of public (African governments) and private sector (Chinese state-owned corporations) who provide the managerial, financial, and technical resources for the project implementation. Given the quest for sustainable win-win, this study identifies strategies towards the realization of win-win in the implementation (i.e enablers of win-win) such that fairness and co-benefit, as well as interests, will be achieved. Thus, based on the PEA framework, case scenarios from Ghana and Nigeria using expert interviews identify the criticalities and best practices for the realization of these enablers at the development phase. Findings indicate more effort is required of the public sector (African host countries) in terms of people, structure/institutions, and the implementation processes. Recommendations include improvement of environmental management structures, contract administration procedures, external stakeholders/local community engagement mechanisms, knowledge and technology transfer procedures, and sector-based project operation and maintenance culture and systems. Additionally, actors must have emotional intelligence, good problem-solving abilities, and overall ensure cordial relationships for continued bilateral cooperation.

Keywords: Policies, Infrastructure development, transnational public-private partnerships, Sino-Africa

1. INTRODUCTION

The development of infrastructure in Africa is critical for promoting economic growth and improving the standards of living of Africans. It contributes immensely to poverty reduction, human development and the attainment of the Sustainable Development Goals (SDGs). According to the Africa infrastructure development indices [1], over half of the recent growth and development on the continent is attributable to infrastructure development. This has made the continuous effort to improve infrastructure development on the continent prime to the African Development Bank's (AfDB) mission as espoused in its High 5s transformative agenda, covering the period 2015-2025. The continent is, however, challenged with limited infrastructure finance amid desperate human settlement needs of water, energy, transportation, and information and communication technologies (ICT) [2]. This has triggered the political will of most African governments and in response pursue foreign direct investments and other effective infrastructure finance strategies. China through its state-owned corporations has established strategic partnerships with most African governments for infrastructure delivery.

Chinese investment in Africa has a positive effect on its infrastructure development [3]. Chinese development partnership with Africa is highly misunderstood. China currently being a developing country, its approach to investments although inclined towards development in Africa is channeled into productive areas such as economic infrastructure [4]. This partnership has become controversial due to their late entry to Africa, acceleration in investment, and the approach and flexibility in dealings with Africa which was amid their need for natural resources given their era for the industrial revolution [5]. Academic debates and critics on the involvement of China in Africa's infrastructure development have projected segmentation and these arguments include the relational issues, and the infrastructure for resource deals which spark vast controversial assessments. Thus, China is seen solely interested in exploiting Africa's resources for their economic and industrial development. Nevertheless, studies indicate that most of these claims lack reliable empirical evidence [6, 7].

Chinese investments in Africa have been on an uptrend and given that these investments have a positive effect on Africa's infrastructure development [3], it is worthy to channel research and development efforts into devising improvement strategies. In SAIPs, the Chinese State-Owned Companies (SOCs) are engaged by African governments to handle the financing and implementation of the physical infrastructure which falls into the generic private sector participation in infrastructure (PPI) spectrum [2, 8] i.e., a diplomatic type of transnational public-private partnership (DT-PPP). Both actors desire to achieve a win-win situation at the end of the development which promotes the continuity of the development cooperation between countries [9]. According to Arewaf [10], the complete infrastructure of Africa through DT-PPP is not apparent yet, and alerted that attention must be paid to the processes concerning construction in Africa. Win-win in this study describes the situation where the interests of both actors are considered in fairness as well as the overall success in the delivery of the infrastructure. This makes it ideal to objectively establish practices or strategies that enable the achievement of win-win in public infrastructure delivery. This could form the basis of policy improvement for infrastructure delivery in Africa towards achieving sustainable development.

2. LITERATURE REVIEW

2.1 Nature of Sino-Africa Infrastructure Partnerships (SAIPs)

Studies have described Chinese investments in Africa as unprecedented with unconventional facets and approaches [3, 11]. Although these investments are developmental, they are primarily not based on official development aid and hence cannot be evaluated based on that standard [12]. A critical assessment of these arrangements depicts a unique public (African Host government or

government infrastructure contracting authority) and private (Chinese state-owned corporations) collaboration for delivering public infrastructure commonly referred to as a transnational public-private partnership (TPPP). According to Zongwe [2], the PPP framework is a creation of the policies that inspire the current international financial architecture, which extols privatization in public infrastructure provision. These policies place privately owned firms or corporations at the forefront. However, the Chinese signature and investment model envisions a greater role for the state as state-owned corporations from China step into the shoes of traditionally private investors to enter into these economic relations with African countries. Therefore, the infrastructure development cooperation between China and African countries can be described as a diplomatic public-private partnership (DT-PPP) for infrastructure delivery. Other distinctive features of typical TPPPs aside use of state-owned corporations for the financing and construction of these infrastructures, include the infrastructure for resource swap deals, south-south bilateral cooperation, binding terms for the purchasing of goods and equipment from China for project implementation, relatively shorter contracting period and the typified investment approach of EPC + F (engineering procurement and construction plus the Finance) model.

2.2 The win-win principle in Sino-Africa DT-PPP

China, upon their outward relationship and engagement with other countries in terms of trade and investments, made conscious efforts to promote win-win partnerships. This was to control and prevent the growing commercial frictions and keep international markets and countries open to them [13]. China emphasizes the achievement of win-win in its foreign policy and dealings with partners [14]. The achievement of win-win in partnership deals between states is relevant to ensure the continuity of cooperation and friendship ties between the countries hence China sees the dealings and work of their corporations in all countries, regardless of income level, as economic cooperation for mutual benefit [9]. Sutter's commentary on China's partnership win-win policy in 2006 captured five principles namely mutual benefits, development first (prioritizing successful project execution), consultative mechanisms, equal consultation, and non-politicization or undue power influence [14].

Furthermore, administrative capacity development is a crucial context for establishing win-win deals such that established win-win objectives can be achieved [15]. Particularly, the mutual benefits ensure parties enjoy or are privy to equal benefits, the development first portrays the prioritization of the success of the venture or project. Also, in a win-win quest, there must be review processes and equal involvement of parties in decision-making processes. Finally, the more powerful party given a particular situation must not influence decisions unduly. Sino-Africa DT-PPP irrespective of the arrangement or investment approach must ensure the interests of the public (African host government and the private (Chinese corporations) are met in the best possible way that is satisfactory to all to promote cooperation ties and uphold the win-win principle. Eshun et al., [16] conceptualized a win-win scenario in infrastructure delivery through PPPs and concluded that certain factors and activities performed at different project implementation stages could foster the win-win goal both private and public actors seek to achieve. Additionally, some studies capture enablers for the attainment of mutual benefit and satisfaction as an objective approach to win-win evaluation in Sino-Africa infrastructure partnerships [8].

3. RESEARCH CONTEXT AND METHODOLOGY

The core of this study seeks to investigate the infrastructure development cooperation between China and African countries sampling case-based experts from Ghana and Nigeria. An effective approach toward assessing SAIPs being a diplomatic form of public-private partnership is to evaluate based on economic and political perspectives. This will enable a better and more practical

approach to strategies for policy recommendation and development. Thus, the study adopted the framework based on political and economic analysis (PEA) by Harris, [17] and Andreas et al., [18] as they are relevant to practitioners and researchers in problem-solving. The political economy analysis is used in the economic development discipline for addressing policy development using the people, institutions, and processes dimensions

Studies with conceptual and practical implications require the use of experts. The study adopted a qualitative case-based approach through semi-structured interviews enhanced the exploration of contextual practices and experiences of the experts which improve the strategies and provide managerial solutions. This study takes an interpretive approach from the PEA context. Guided by the PEA framework respondents were engaged to opine on certain factors that enable the achievement of win-win. Enablers were established from literature and findings from previous investigations and surveys win-win enablers i.e., this paper presents sections of a broader study.

The enablers discussed in this study are focused on the development phase of the DT-PPP they include; attainment of project-specific success criteria, optimum assessment and fair allocation of project risks, effective engagement of project stakeholders, the development of an equitable financial plan, and model and apt public and private sector competencies. The respondents were tasked to opine on the following:

Q1. What are the criticalities and best practices for achieving the win-win enablers based on their experiences in project implementation as the public sector?

Results from the elicitation enable the establishment of policies to promote the win-win achievement of SAIPs as a DT-PPP. The study adopted a manual coding technique to evade the decomposition of the varying network of ideas that were generated by the respondents.

3.1 Expert profiling

Table 1 provides a summary of the background information of the respondents. The experts engaged were industry practitioners as well as researchers. Sampling was challenging as some experts expressed sensitivity and concerns for information protection and hence requested anonymity and confidentiality.

Table 1. Expert profiling

ID	YoE	Project types /Sector(s)	Profession/ Job position	Job Affiliation/ category
E01	11 years	Transport	Quantity surveyor	Public sector consultant
E02	9 years	Energy	Engineer	Public sector consultant
E03	15 years	Transport	Project Manager	Cen. Govt (Ministries/departments)
E04	19 years	Transport	Quantity surveyor/estimator	Public sector consultant
E05	22 years	Transport, Energy & water	Professor/Researcher	Academia/ Public sector consultant
E06	16 years	Transport & oil and gas	Engineer	Public sector consultant
E07	11 years	Energy	Project Manager	Local Contracting Authority
E08	10 years	Transport	Contractor	Public sector consultant
E09	23 years	Transport & Energy & water, sewage	Professor/Researcher	Academia/ Public sector consultant
E10	11 years	Energy	Engineer	Public sector consultant
E11	14 years	Transport & oil and gas	Quantity surveyor	Local Contracting Authority
E12	16 years	Transport	Civil engineer	Cen. Govt (Ministries/departments)
E13	12 years	Water & Energy	Engineer/ estimator	Local Contracting Authority
E14	8 years	Transport	Contracts/Project Manager	Local Contracting Authority

E15	12 years	Transport & Energy	Associate Professor/Researcher	Academia/ Public sector consultant
E16	16 years	Transport	Engineer/ Cost estimator	Public sector consultant
E17	15 years	Water & Energy	Administrative head	Cen. Govt (Ministries/departments)
E18	15 years	Transport & water	Contracts manager	Local Contracting Authority
E19	10 years	Transport	Administrator/ Projects manager	Cen. Govt (Ministries/departments)
<i>Notes: YoE –Years of Experience, ID- Expert Identifier, Cen. Govt- Central Government</i>				

4. RESULTS AND DISCUSSION

4.1 Criticalities and Best Practices

The realization of the win-win goal requires careful consideration of the enablers (discussed below). The following sections discuss the criticalities and best practices during the development phase of implementation for achieving enablers.

4.1.1 Attainment of Project-specific Success Criteria

The major reason why Chinese corporations are engaged is to deliver certain public infrastructure. This enabler is core to the partnership in relation to the “product” being delivered. Arguably, both the public and the private actors of the project have a keen interest in the achievement of project objectives. Expert E10 on this theme highlighted that *“if the infrastructure project being implemented is not able to meet requirements like time, cost and quality, we cannot say we are working towards the win-win goal”*. It is the part that defines most other activities in the project implementation hence stakeholders establish these criteria at conceptualization (development phase). In PPPs, the success of the product and the implementation is enclosed in meeting the success criteria [19]. Critical findings include timely completion, cost optimization, and achieving service quality standards. Additionally, most respondents also highlighted the criticality of environmental sustainability management during implementation. E13 stated that *“people around the projects complain about pollution of rivers and the air because of the mineral extraction in some communities which form part of the project agreement”*. The natural resource extraction and construction activities pose environmental threats therefore ensuring effective management must be made a contractual obligation hence a success criterion [20].

4.1.2 Optimum assessment and fair allocation of project risks

Risk assessment and allocation in PPPs are very important in the development of the scheme. Themes obtained under this enabler indicate that risks should be transferred to the party who bears the least risk cost, the party who can handle the risk occurrence as well as the further consequences of the risk occurring during the project life cycle. Experts E03, E06, E17, and E01 explained considering risk interrelationships in assessment is important. The issue of risk behavior was stressed by E03 who stated that *“our Chinese counterparts mostly show risk aversiveness; they mostly avoid taking too risky decisions”*. Studies on SAIP have highlighted that the dominance of the EPC plus F (Engineering, procurement, and Construction plus Financing) model in Sino-Africa DT-PPPs shows their risk avoidance for commercial risk which is indicative of their risk behaviour [21] others also capture that the adoption of resource security in these dealings shows risk behaviour [22].

4.1.3 Effective Engagement of Project Stakeholders

Typical of Sino-Africa DT-PPPs approach to win-win lies in the successful consideration of stakeholder interests in the development cycle of the project. Sharing experience from an ongoing project, E05 stated that *“we had a very difficult time trying to get the community members to cooperate with the project because we only contacted them when the project had already started”*. The poor involvement of the local community in the development of the infrastructure triggers

rejection and opposition towards the project. E03 also explained that *“we don’t seem to have proper structures and procedures on how to engage the local community”*. Findings indicate that proper planning and structure are key as it enhances effective identification and information gathering methods. E10 stated: *“that project managers must control the extent or level to which they are involved and managed as they can cause the project to drag”*. Lastly, the large-scale nature of Sino-Africa DT-PPPs involves several stakeholders therefore an efficient plan towards engagement from inception to transferring of the or the infrastructure is critical.

4.1.4 Development of equitable financial plan and model

This enabler tackles the value for money element which is critical in infrastructure partnerships. The financial plan of the project must be reasonable such that Chinese firms do not profit at the expense of the African governments and vice versa. In Ghana, for example, the Bui Hydropower dam was delivered through an escrow of Cocoa exports to China popularly referred to as infrastructure for resource deals. This makes this enabler critical in the desire to achieve a win-win. Subject to the project and sector-based distinctiveness, respondents' opinions were generalized into adaptable strategies. Findings majorly showed that both actors can realize the value for money in their financial planning when the cost-benefit analysis is efficiently executed. E12 *“the public sector comparator is very instrumental in this planning; every government uses it as a tool to evaluate projects for public service provision”*. This is indicative that a highly efficient public sector comparator is favourable. Other factors highlighted include the microeconomic factors and the financial structure of the host country. E03- *“the government can provide tax exemption and subsidies to help the cost consideration of the project”*.

4.1.5 Apt public and private sector Competencies

The quest for win-win in the development cycle of infrastructure these projects is heavily reliant on public and private actors. Studies have tentatively reported that most of the issues are attributable to the host country. Experts iterated those issues of the partnerships include poor governance and institutional structure, policy regulations, and conflict of interest. For instance, E05- captured that *“for these partnerships to achieve win-win, political conditions and interferences must be eliminated, gives rise to bribery and corruption”*. Improvement of existing policies and regulatory frameworks with de facto rules and principles to govern Sino Africa DT-PPPs is critical. Some studies asserted the lack of accountability mechanisms and ample institutional capacity of some contracting authorities in the host countries have affected the smooth running of Sino-Africa DT-PPPs [22]. E09- *“We must develop better regional and sector-based (transport, energy, etc.) policies and strategies so that more details on their different characteristics can be focused on within these partnerships.”* Furthermore, experts empathized the improvement of institutional structures with enough and well qualified and adequate workforce to manage the project, especially at the operational level. In agreement with the study by Pirie [23], experts E15, E08, and E05 stressed the fact that the public sector shows very weak bargaining power and accepts asymmetric terms which are sometimes unsatisfactory. Additionally, the Effective contract administration procedures and experts as well as conflict resolution mechanisms. Respondents highlighted some relationship-related factors as critical for the move toward win-win. For instance, E02- *stated that “the must be mutual trust, respect, and transparency among stakeholders”* during the implementation. Additionally, project actors must have good communications skills, emotional intelligence, and good problem-solving abilities.

4.2 Policy Recommendations Funnel

Policy implications derived from the expert engagement with PEA framework emphasized the need for improved structures (institutions and mechanisms), public and private sector competencies, and implementation processes to foster win-win achievement. Recommendations

under structures include effective contract administration procedures, knowledge and technology transfer procedures and institutional development, improvement in policy and regulation enforcement agencies and institutions, and a specialized public sector comparator (PSC) for barter dealings. Sustainability concerns also highlighted the need for improvement of environmental management structures, financial structures and regulations, and the establishment of external stakeholders/local community engagement institutions and mechanisms for environmental, economic, and social dimensions respectively. Finally, cultural intelligence, mutual trust and respect, infrastructure commercialization experts, ensuring equal negotiation power and capacity, efficient assessment of project risk and uncertainties, achieving service quality standards amongst others are the competencies and implementation processes for enhancing win-win in Sino-Africa DT-PPP.

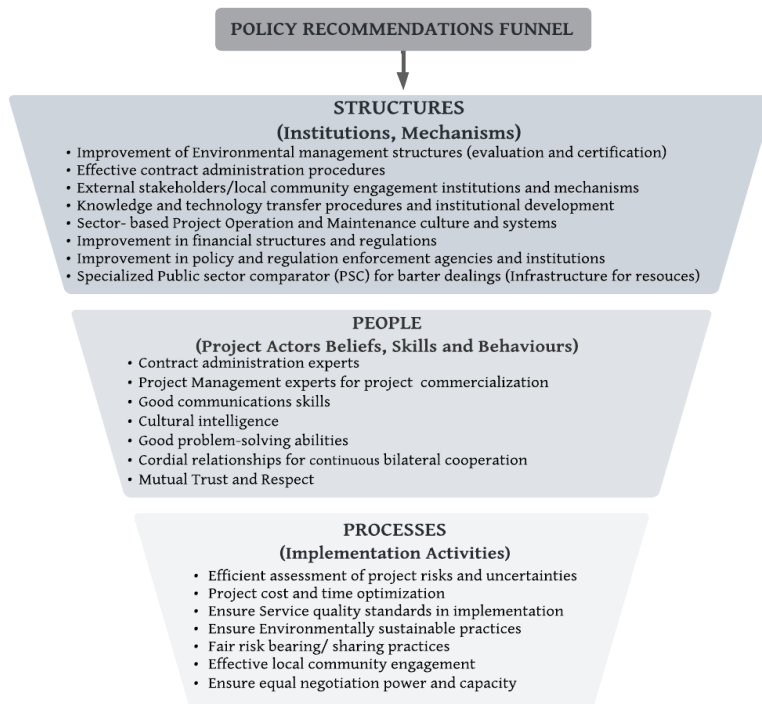


Figure 1. Policy recommendation model

5. CONCLUSION

The unique nature of Sino-Africa DT-PPP for infrastructure development although has blossomed over the years is characterized by certain pressures in implementation. It is, therefore, needful for more conscious efforts from both actors to facilitate successful implementation in fairness to maintain win-win and promote cooperation ties. Finally, the improvement and maintenance of institutions, mechanisms, and best industry implementation practices are ideal to promote Sino-Africa DT-PPPs as a complement to other infrastructure development partnerships.

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