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SECTION 2: LITERATURE REVIEW

2.1. Introduction

The section two of the essay discusses the literature review which has been presented in the light of past studies and theories which has been presented by the previous researchers and authors. Furthermore, the literature discusses the evolution of the SSA with respect to infrastructure financing and development. In addition, it also incorporates what should be strategies and policies for closing the gap related to infrastructure development in the SSA countries. Moreover, the literature has also presented with the theoretical framework that highlights the finance theory which is suitable for the infrastructure development of the SSA countries.

2.2. Evolution of Infrastructure Financing and Development in SSA countries

In the light of the report presented by Rosnes and Shkaratan (2011), it was highlighted that there is lack of infrastructure development in the SSA countries with deficient transformation in those countries. In the year 2009, the World Bank and the multilateral institutions investigated the challenges associated with addressing the glaring infrastructure development gap in the SSA countries. Furthermore, the comprehensive regional analysis has aimed towards establishing the baseline that future improvements within the infrastructure services can be evaluated in the context of policy reforms and priority investments. According to Estache (2010), the main external sources of financing for the African infrastructure mainly includes official bilateral, private participation in infrastructure (PPI), official Chinese financing and multilateral development finances (ODF). The sources collectively present around 97% of the external financing for the SSA countries. Furthermore, the other sources of finance such as the Arab States along with the emerging markets, for instance, India and Brazil are relatively minor and vary from year to year but are expected to

become potentially important sources in future for the infrastructure finance development of the SSA countries.

In the light of Calderón and Servén (2010), the external financing trends have also evolved in the SSA countries because the major sources of the external financing have been increased appreciably by their annual commitments. In the year 2003, the commitments have increased from $5 billion to $30 billion per year as recorded in 2012. On the other hand, the ODF investments were found not to be the dominant sources of the infrastructure financing within the SSA countries as recorded in the year 1990s, which has further increased appreciably since the year 2007 that also reflects 35% of the external financing. In addition to the above statement, the PPI has become the largest financing source for the SSA countries since 1999 which comprises for more than 50% of the external financing (Saghir, 2017). On the other side, the official's investments gathered from China has also increased from the 20% and was observed as insignificant for the SSA countries because of the imposition of conditionality.

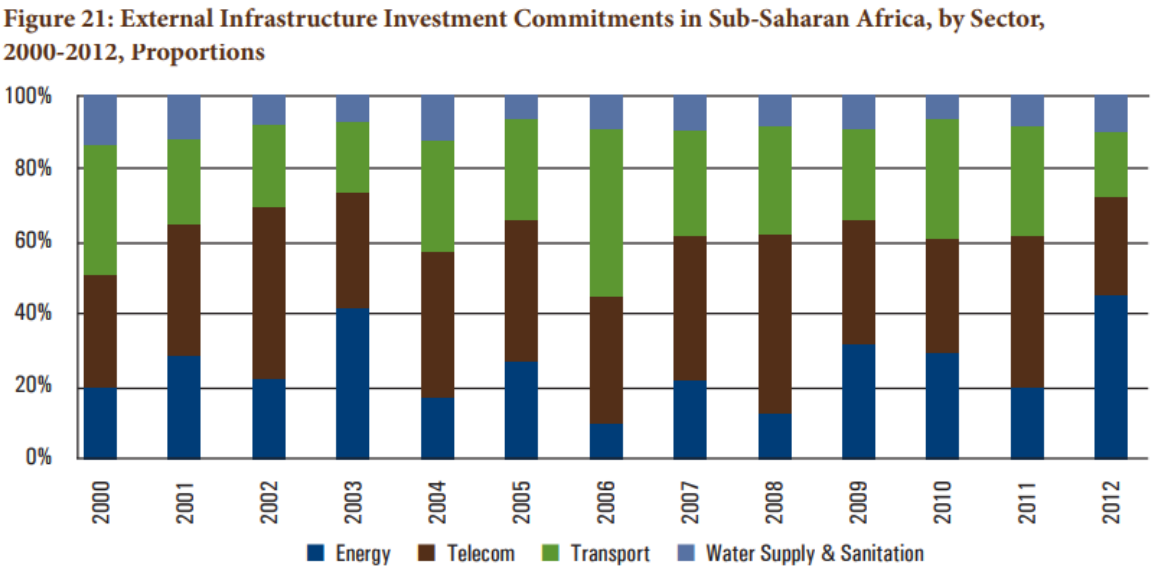


Figure 1: External Infrastructure Investment in SSA countries

2.3. Role of institutions in shaping and determining to finance of infrastructure in era of colonialism

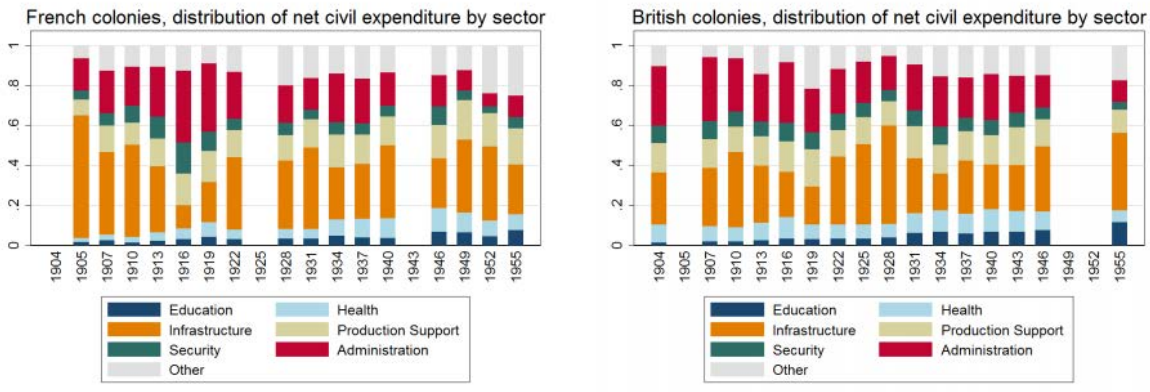
2.3.1. Colonial Perspective on the SSA countries

In order to present the evaluation of the colonial legacy, it is necessary to distinguish the situation and trends present at the beginning of the colonial rules, which occurred in most of the SSA countries during the European Scramble, from 1920 to 1940. At the same time, the countries were characterised by the abundance of land which in relation to the labour is generally available to colonists. This does not imply that SSA countries were having resource abundance alongside the mineral endowment which was unknown for the pre-industrial technology. According to Austin (2010), the labour productivity of the SSA countries was apparently higher than the countries outside Africa which underlies the economic logic for the external slave's trade in the scarcity of the African countries itself. Without any coincidences, most of the SSA countries were colonised at the time of Europe's industrialisation when it was creating and expanding because of different commodities which can profitably be produced in the SSA countries.

The question arises that "Why it was so difficult to build Africa as the developmental state?" Most of the economic literature has suggested weak states as the key determinant for explaining the relative development in Africa. Moreover, some of the researchers insisted that the conditions which explain the weak capacity of the states in African existed before the colonisation of Europe. On the other hand, Ehlers (2014) argued that the present day features of the African countries have been inherited from the colonial era. In the statement given by Acemoglu, Johnson, and Robinson (2012), it was highlighted that the British colonial legacy is considered as the most favourable situation for the SSA countries in terms of institutional and legal framework along with the effects on the education. Surprisingly, the history regarding the public finances in the SSA countries, has few exceptions in the contemporary

debates, however, the recent economic literature has mentioned the significance of taking into consideration the long-run factors while thinking over the infrastructure financing.

Discussing the history of the African states, the last 15 years of the colonisation was of great significance because, in this period, there were numerous features for the contemporary states, for instance, the external financing was put into consideration. In close consideration of the present work are the studies carried out by Cogneau, Yannick, and Sandrine (2016), which also taken into focus, the financial transfers between the SSA countries in terms of infrastructure investments. The study of this author computed the net public subsidies in the context of metropolitan France to the AOF during the era of colonists and further deduced that the subsidies were limited. However, from the 1920s, the UK and France, the colonial administrators started to make metropolitan investments in the SSA countries. The charts presented below explain the distribution of the net expenditures of different sectors made by the French and British colonies.



Mali (then called Soudan Français) missing in years 1922, 1928 and 1946.

Figure 2: Expenditure in SSA countries by Colonist

Even though that there is a significant difference amid British and French colonial policies regarding the finances, the patterns associated with the colonial public finances in the British and France West Arica share some of the common aspects. Moreover, with the significant exceptions for Nigeria, the expenditure per head for the SSA countries is

considered as lowest in the colonial period which also reflects that the size of the colonial states is considered as smallest in the British colonies (Cogneau, Yannick, and Sandrine, 2016). However, in the context of the public finances, the independence was not at the breaking point, for the purpose of the fact that in the last fifteen years for the colonisation is considered as the important feature of the contemporary states of Africa such as external financing dependency.

2.4. Factors underlying the SSA infrastructure Gap of $93 billion

According to the report presented by AICD (2010), it was highlighted that the modernising and developing infrastructure within the SSA countries requires an aggregated 93 billion for the infrastructure development as presently it is valued at US$45 billion and raised locally to an estimated amount of US $17 billion within the delivery and execution of the infrastructure. Moreover, the financing gap is valued at US$31 billion within the year results. The table presented summarises the sectors with total spending needs alongside total current expenditure with the financing gap.

Infrastructure Financing Gap for Africa (USD billion)

Infrastructure Sector	Total Spending Needs	Total Current Expenditure	Financing Gap
ICT	9.0	9.0	0.0
Irrigation	3.4	0.9	2.5
Power	40.8	11.7	29.1
Transport	18.2	16.3	1.9
Water Supply And Sanitation	21.9	7.6	14.3
Total	93.3	45.6	47.7

Source: Africa Infrastructure Country Diagnostic, World Bank, 2010

The gap identified between the available and required infrastructure needs for the African population depicts that it cannot be bridged by the public sector sources or by following the traditional model of infrastructure financing in the country. It is also estimated that the budgetary resources or the traditional model of financing can help the SSA countries in maintaining a limited portion of different sectors including ICT, road networks, energy sectors and water supply sector. In this essence, different SSA countries have engaged with the private sector participation in the growth and development of the infrastructure.

According to the study carried out by Sy and Copley (2017), it was highlighted that the China is the major contributor to the infrastructure investment development in the SSA countries. Moreover, the country seeks assistance from the Chinese financing for the purpose of infrastructure development. Furthermore, the distribution of the infrastructure finance is comprised of the major external sources that mainly indicate the substantial dispersion of the finances across different SSA countries. In the context of absolute amounts, there is a high concentration of association present in the SSA countries which benefit the combination of state for the substantial own-financing capabilities. In addition to the above statement, there is a broad coverage for the infrastructure sectors with the recent growth which is being directed towards the energy as the external sources of financing for the infrastructure development.

2.4.1. Risks associated with Financing of Infrastructure

For continuation with the expansion of the PPI beyond different sectors, it is necessary that the risk associated with the infrastructure investment should be addressed. In the light of Gutman, Sy and Chattopadhyay (2015), it is highlighted that the biggest risk for investing in the infrastructure of the SSA countries is project feasibility, profitability, regulatory environment and political risk. Moreover, these concerns should be addressed which requires multi-stakeholders approaches. For example, for increasing the feasibility of

the projects and profitability, it implies that relevant government ministries alongside the other stakeholders that include regional economic communities and other project consultants should engage insufficient preparation of the projects. The main risk associated with the infrastructure development is the revenues which come from government subsidies and user fees in local currency, lenders to foreign exchange and exposing investors if the funding is presented in the foreign currency. In addition, the foreign exchange risk can be compounded in case of water, by means of the political difficulty of the implementation of tariffs.

2.5. Theoretical Framework

2.5.1. Financial-Investment Theory

The general theory presented by Keynes provided a central idea towards the role directed towards the investment decision within the determination of aggregate level for effective demands, which is considered as the primary factor for the generation of an adequate level of the equilibrium level of output and employment (Pistor, 2013). Furthermore, the investment is the driving variable which operates in the context of the multiplier for establishing the total income. In addition, the size of the multiplier is mechanically evaluated by the inverse relation for marginal propensity to save (Asongu, 2014). The theory suggests that the investment can proceed only when the demand prices exceed the supply price for the capital assets and the investments. Moreover, the price includes the margin of safety, which is affected by the expectations associated with the unknowable outcomes. In addition to the above statement, the expansion of the investments generates the returns which exceed the projections larger than necessary. The theory further suggests that investment is forthcoming which if the investment is expected in the future for a particular country will explain the profits.

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