

THE EFFECTS OF AFRICA'S INFRASTRUCTURE CRISIS AND ITS ROOT CAUSES

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Abstract:

The development and expansion of any continent's economy is mostly dependent on the availability of world-class infrastructure capable of attracting international investors. The development and expansion of Africa's infrastructure is imperative; hence this will improve the African economy. The development and expansion of infrastructure improves the economy, resulting in many economic prospects for the inhabitants of any continent. However, in Africa, infrastructure development, investment, and preservation are among the lowest in the world. Infrastructure development will not only attract foreign investment and business, but it will also enhance trade between countries within the region. Trade between countries within the region is also heavily impacted by poor infrastructure investment in the continent, this puts much limit economic prospects within the region. This is a major concern; thus, Africa has several deficiencies in transport, telecommunications, water, health, and education infrastructures, all of which are crucial for Africa development. This is one of the main reasons why Africa has the highest levels of unemployment, poverty, food insecurity, migration, and poor education and health care systems. The author contends that investments and development in the African regional infrastructure are relatively low. This is a major barrier to regional economic development since the development of the region's economy relies on the development of infrastructure. This is unfortunate; hence, the region economy already lacks capabilities to provide the people with economic opportunities. A qualitative method was used to investigate what is preventing infrastructure development in Africa and what this means for Africa as a developing continent.

Keywords: Africa, development, economy, government, infrastructure, investment

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INTRODUCTION

The foundation of development is infrastructure. Adequate infrastructure is a crucial component of a setting that encourages investment and provides a living, and it fosters economic development, reduces poverty, and improves the provision of health and other services (Mitullah et al., 2016). Africa's economic progress is hampered by a lack of infrastructure development. The lack of infrastructure in Africa is an indication of unrealized productive potential and a great investment opportunity. If there is an unmet need for infrastructure, it remains a major barrier to conducting business in most African nations, reducing company productivity by around 40% (Chakamera & Alagidede, 2018). According to Mahmoud et al., 2022 infrastructure development is critical to encouraging growth and alleviating poverty. However, in Africa, inadequate infrastructure remains a stumbling block to long-term growth. Developing Africa's transport, electricity, water and telecommunications infrastructure will be vital for governments to achieve long-term economic growth. Africa's infrastructure projects are severely underfunded, and nothing has been done lately

to close the massive financial gap. Furthermore, infrastructure is critical for development. Dethier (2015) alluded to that many African nations are impoverished and unable to organize resources to improve infrastructure. When resources are mobilized, they are often spent very inefficiently. Many governments, confronted with conflicting priorities or challenging budgetary conditions, simply do not or cannot invest the resources required to achieve desired levels of access or quality. According to Jerome (2011), Africa's infrastructure is still far behind worldwide norms in terms of quantity and quality, despite the perception that efficient infrastructure is a crucial component for economic progress, the elimination of poverty, and the achievement of the Millennium Development Goals (MDGs). Azolibe & Okonkwo (2020) concurred that adequate and effective infrastructure not only enhances people's quality of life, but also encourages fast industrialisation. The building of infrastructure in Africa is essential for promoting economic growth and improve the quality of life of Africans. It makes a substantial contribution to human progress, eradicating poverty, and achieving the Sustainable Development Goals. Abuka (2005) indicated that a crucial part of the investment climate is the infrastructure. One of the main obstacles to economic progress in Africa is the poor state of its transportation infrastructure, including its roads, rails, ports, airports, electricity and telecommunications systems. Luiz concurs (2010) Productive governmental spending on infrastructure (such as roads, transit, and housing) and human capital may play an essential role in driving economic development and stimulating private investment. The lack of a suitable supporting infrastructure in Africa, such as telecommunications, transportation, power supply, discourages international investment by increasing transaction costs. Furthermore, bad infrastructure diminishes investment productivity, deterring inflows (Dupasquier & Osakwe, 2006). Chakamera (2021) agreed that in Africa, poor and inadequate infrastructure consistently stifles productivity and economic progress. The present lack and bad (or deteriorating) infrastructures are the primary causes of the weakened and, in some cases, negative repercussions. The effect of inadequate infrastructure development in Africa as a developing continent is the study problem that this article seeks to analyse. Considering that the African continent is riven with various difficulties that may be solved via infrastructure development and investment. Most people in Africa earn their living selling goods on the streets of the continent. It is noteworthy that women are leading this type of trade within African states, and the lack of reliable roads and railways makes it difficult and harsh for women to trade. Poor infrastructure development is a major barrier to trade between countries within the region.

METHODS

This study investigates the issues of inadequate infrastructure development and investment and how it affects Africa's growth using the qualitative research approach. To answer the study problem and the purpose of this work, secondary sources that directly addressed the problems of infrastructure limitations in Africa were analysed. The arguments among different stakeholders and the theoretical literature that underpins this phenomenon are critically examined in the article. Research databases including Sabinet, Emerald Insight Journals, Google Scholar, IBSS, Scopus, and Science-Direct were used to find pertinent material that addressed the main concerns of the paper. The information collected was interpreted using a thematic analysis. By using this research strategy, the authors were able to consider regional and international discussions on inadequate infrastructure investment and development in the Africa region. According to the article, infrastructure development in Africa is alarmingly lacking. As a result, effective development and investments in infrastructure would aid African states in resolving many of the problems the continent is currently facing, including poverty, unemployment, hunger, deficient healthcare

systems, political instability, and a lack of adequate housing, to name just a few. If African governments develop and invest in infrastructure, all of Africa's existing problems can be addressed.

RESULT AND DISCUSSION

The Causes of Poor Infrastructure Development and Investment in Africa. Lack of Funding to prioritise Infrastructure Development in Africa. According to Deloitte (2021), funding is a serious concern for African infrastructure development. African governments have typically funded a significant portion of the continent's infrastructure development on a balance sheet basis, limiting infrastructure deployment to financial constraints. Additionally, local banks are often unable to provide the long-term financing required for infrastructure construction. To address the infrastructure backlogs of the continent, some type of partnership with private sector entities is an essential and vital prerequisite. According to the Africa Development Bank (2018), a lack of funds for project planning in Africa is a limiting issue in infrastructure development. In general, if private entrepreneurs are not compensated when projects do not reach financial completion, which is rather common, the planning stage may be quite perilous. According to the Development Bank of Southern Africa (2019), infrastructure development on the African continent requires between \$130 billion and \$170 billion each year; however, financing falls short by \$68 billion to \$108 billion per year. According to Mahmoud et al., 2022, closing Africa's financial gap via investments in productive infrastructure will have national and global implications. In response to Africa's systemic shortage of finance for infrastructure projects, nothing has been done to close the massive financial gap. Due to current budget deficits and limited access to foreign financial markets, new financing sources must be considered. According to Barka et al. (2018), the absence of large-scale investment is due to the limited engagement of private sector participants and the difficulty in mobilizing long-term funding from African financial institutions to finance large-ticket goods such as infrastructure. To address Africa's low degree of structural change, significant infrastructure investment via novel finance sources is required. Indeed, the New Partnership for Africa's Development Program for Infrastructure Development in Africa projects that Africa would need up to \$93 billion in yearly capital and maintenance investments. However, only \$60 billion can be satisfied with domestic resources and help from development finance institutions and other development partners.

Weaknesses in infrastructure planning and project preparation. Khumalo, Choga, & Munapo (2017) alluded that for government agencies to save money, proper infrastructure planning together with efficient monitoring and assessment are crucial. In Africa, infrastructure development is often hampered by poor planning, low operational capacity, corruption, insufficient maintenance, and harmful environmental impacts (Van der Waldt, 2014). Despite an increase in foreign investment appetite and financing for infrastructure on the continent, the bulk of projects anticipated never reach financial closure, with a projected 80% of infrastructure projects failing at the feasibility/business plan stage (Abiru, 2021). Many African governments lack well-defined infrastructure programs and bankable project pipelines. Given costs, hazards, and long-time horizons, the private sector is not prepared to examine, plan, and prepare infrastructure projects. This implies that governments, donors, and international financial institutions (IFIs) must design long-term infrastructure based on population growth and development goals and the economic relevance of different regions (Africa Development Bank, 2018). Lakmeharan et al., 2020 mentioned a limited deal pipeline or selection of low-impact initiatives, often because of a lack of a long-term master plan capable of bridging political cycles. A shorter-term emphasis may result in a reluctance to construct bigger, more influential initiatives, as well as weak infrastructure policy frameworks leading to poor infrastructure project prioritization. Leigland and Roberts (2007) indicated that the project planning process has proven to be more difficult to accomplish than anticipated in the

development of many major infrastructure projects in Africa; this is a prevalent problem among the world's poorest nations. Many African facilities have been established to work on somewhat advanced projects, such as conducting feasibility studies to prove bankability and then carrying out the project to completion. According to Herrera et al., 2020, "inadequate project planning" is the most frequently cited challenge facing African infrastructure projects. Poor work scheduling, inadequate planning for materials supply, a lack of plans for acquiring machinery, inaccurate projections of goals and deliverables, sloppy hiring practices, insufficient traffic management plans, and inadequate environmental protection strategies are examples of planning processes that contribute to this problem. Shortcomings that need ad hoc solutions during construction, which add expenditures to the project that were not accounted for at the beginning.

Lack of bankable project in Africa. Lay (2017) alluded that the absence of bankable projects in Africa is a cause for concern. A bankable project or proposal is one that has enough collateral, future cash flow, a high likelihood of success, and is acceptable to institutional lenders. The bundling of smaller projects offers little hope for many African economies, since many of them may turn out to be unbankable due to their modest size (and highly risky). In Africa, the problem of inadequately planned or bankable projects is much more severe (Möykkynen & Pantelias, 2021). Lakmeharan et al., 2020 mentioned that many governments and developers in Africa lack the ability and funds to plan and construct commercially viable infrastructure projects. Furthermore, short political cycles can put long-term infrastructure investments at risk. Therefore, investors have a shortage of bankable project pipelines: just a few projects match investors' risk-return expectations and achieve financial closure. Indeed, obtaining financial closure may be exceedingly difficult, even for projects in asset classes that have historically generated strong returns (such as power production) and for projects with assured revenues and guarantees. According to Abiru (2021), Africa's ongoing infrastructure deficit is caused by a shortage of bankable projects to invest in, which is attributable to a variety of issues. While there are several reasons why a project may not be bankable, the aspects of a bankable project can be classified as follows.

1. **Legal and Regulatory Environment:** Given that project financing is typically a lengthy process, investors and project sponsors will typically need a certain amount of transparency and predictability in the legal and governmental framework of the country where the project is to be funded.
2. **Project Specificity:** The project preparation stage is one of the areas where most African infrastructure project plans fail. In this regard, sponsors and investors will need credible feasibility studies, in-depth technical studies, engineering designs, a business plan, a financial model, market studies, environmental & social impact assessments, as well as the required licenses and permits to build and operate the project.
3. **Project Financial Structure:** Given the enormous amount of money necessary to create infrastructure projects, the method through which project funding will be generated and repaid is an important bankability factor.
4. **Risk distribution:** Given the risks associated with project financing, it is crucial to distribute project risks to those who can best handle them. This is known as risk allocation.
5. **Political & Economic Environment:** For project investors, the political and economic sustainability of a project is crucial, especially with respect to currency risk, nationalization, taxes, changes in administration, government guarantees, etc.

Corruption as an Impediment to Infrastructure Development in Africa. Corruption in Africa is a development concern. African nations cannot endure the expenses of corruption, which impedes growth and limits governments' capacity to eradicate poverty (Lawal, 2007). According to Adindu et al. 2019, corruption is a serious issue that wreaks havoc on many constructions and infrastructure

development projects in Africa and throughout the globe. This social hazard has infiltrated the construction sector in Africa and is presently hurting the quality of project performance badly. Corruption retards a country's growth because those in positions of power often utilize their positions for personal gain and wealth accumulation rather than a call to service. In Africa, corruption impacts investments, drives up and skews spending on necessities like infrastructure, education, and healthcare, as well as lowering productivity of public investment and infrastructure via inappropriate use of talent and other resources. Additionally, it jeopardizes democratic principles, competitiveness, and a nation's economic foundation (Lumumba, 2011). African continent Corruption has a negative influence on the impact of infrastructure on productivity and development, emphasizing the significance of independent regulatory authorities in mitigating some of the effects of corruption on infrastructure services. Corruption increases the capital cost of infrastructure projects, lessens their effect on productivity and growth, boosts recurring expenses, and affects the quality of infrastructure services (Ajakaiye, & Ncube, 2010). It is likely that nations with worse infrastructure would often have higher levels of corruption (Gillanders, 2014). Kenny (2007) alluded that the effect of corruption extends beyond bribe payments to poor quality infrastructure building with low economic returns and inadequate money for upkeep - and here is where most of the harm is seen. Because building plays such an important part in growth, corruption in the industry may be exceptionally damaging. Corruption that leads to low quality construction or that fosters an atmosphere of bad project selection and inadequate maintenance may drastically diminish the economic return on investment. Corruption, maladministration, and a lack of accountability have all had a detrimental influence on Africa's growth. Corruption suffocates progress and raises the cost of procedures, particularly in areas where infrastructure development is needed, such as Africa (Chiweshe, 2014). Corruption may also impair public infrastructure owing to misallocation issues and tax revenue loss. The causation runs from corruption to infrastructure, and there is a negative association between corrupt conduct and tax collections. Corruption may result in decreased social expenditures in this aspect (Koyuncu & Ünver, 2017). Corruption is another factor of poor and inefficient infrastructure development in Africa. Infrastructure development actors are particularly vulnerable to corruption threats, owing to inadequate governance and a lack of openness and accountability. Corruption also leads to superfluous initiatives, higher public expenditure, low competitiveness, fewer budgets for infrastructure upkeep, and poor quality. It also undermines institutional capacity and effectiveness, resulting in a decline in public faith in governments (Organisation for Economic Co-operation and Development, 2018).

Poor Infrastructure Management in Africa. Infrastructure is one of Africa's most essential economic drivers, allowing industry to create and governments to provide services in a sustainable way. To achieve sustainability, infrastructure conditions must be maintained in such a way that goods and services may be supplied successfully and efficiently (Nhleko & Inambao, 2019). Infrastructure is critical to any country's social and economic growth (Foster, 2010). Infrastructure maintenance and growth are crucial aspects of sustaining economic activity in a rising economy (Perkins, Fedderke & Luiz, 2005). If Africa wants to achieve any type of economic progress, it must have a well-functioning infrastructure. Working infrastructure creates economic opportunity, works as a catalyst for economic progress, and eventually allows much-needed job creation (Creamer Media, 2020). One of the main issues in Africa is the lack of physical infrastructure. Furthermore, the lack of maintenance, administration, and repair has accelerated the deterioration of existing physical infrastructure (Arewa, 2016). The infrastructure of Africa seems to be rapidly degrading, due to a lack of regular maintenance, skill shortages, and misuse. While overuse is the result of fast economic expansion mixed with a relatively little increase in infrastructure quantity, maintenance, and skill

shortages are the result of bad planning, finance, and education and training policies (Fourie, 2008). Major investments will still be necessary to repair Africa's aged and failing infrastructure, bring it into compliance with increasingly severe environmental and health laws, and sustain service quality in the future (Hukka & Katko, 2015). The asset value of the road network exceeds 30% of the gross domestic product (GDP) in numerous countries, indicating the scale of the maintenance challenge. In general, road conditions lag behind those seen in other emerging areas, despite the fact that the network of important trunk roads has been kept in reasonable shape (Gwilliam, 2008). Rural roads in Africa have substantial problems due to the lack of money and engineering involvement during both building and maintenance operations. For these reasons, rural roads are often in poor shape and, during the rainy season, become practically inaccessible due to erosion processes that severely harm them. The poor quality of rural roads has serious implications for economic transit of products and services, as well as general mobility of people, impeding the country's growth (Ngezahayo, Burrow, & Ghataora, 2019). For example, inadequate and inadequate infrastructure and building might be directly connected to Africa's poor road network. Several African governments have focused on modernization and rebuilding towns into standard interconnected metropolis throughout the years, which has tremendously affected Africa (Arewa, 2016). The lack of scheduled maintenance for certain infrastructure in African nations has resulted in it degrading to the point that it was too costly to maintain and repair, yet the only long-term answer was replacement (Lorraine & Rimuka, 2022).

Consequences of inadequate infrastructure development in Africa. In terms of infrastructure, Africa is the least developed continent in the world. It also lacks in terms of the quality of infrastructure services provided to consumers. The infrastructure is sparse, and its performance is typically subpar: It is expensive, irregular, and unreliable (Bond, 2016). Unfortunately, infrastructure failures in Africa are significant drivers of community instability, pollution, the accumulation of expensive energy and financial bills, and the increasing need for capital infusions (Nhleko & Inambao, 2019). The lack of infrastructure is a major impediment to broad-based economic progress in Africa. Generating capacity, electrical demand, and supply security are all insufficient (Oluwatayo & Ojo, 2018). Inadequate social infrastructure in Africa has become a barrier to economic development and the fight against poverty (Reddy, 2016). Africa's infrastructure stock is depleted, especially in the electricity sector. More than 640 million Africans lack access to energy, giving African nations an electricity availability percentage of just over 40%, the lowest in the world. Access to energy is critical not only for achieving health and education results, but also for lowering corporate costs and unleashing economic potential, therefore generating employment (Africa Development Bank, 2018). Africa's total infrastructure investment needs are projected to be US\$93 billion per year, with the energy sector has the largest infrastructure gap, whether evaluated in terms of energy demand, generating capacity, or supply security. Most African nations are suffering from severe "energy poverty," with limited access, particularly in rural areas, poor purchasing power, low energy efficiency, and an overreliance on traditional biomass to meet basic energy demands (United Nations, 2020). Most African rural areas have insufficient and unreliable infrastructure services. Households in rural areas lack access to clean drinking water, power, reliable transportation, and modern communication services. Only 34% of rural Africans live within two kilometers of an all-season road, compared to 66% of people in other developing countries (Africa Monitor, 2017). Poor infrastructure continues to stifle African economic progress. Despite the fact that foreign investors have adequate interest and cash to support African infrastructure projects, 80 percent of infrastructure projects fail during the feasibility and business planning stages (Holtz & Heitzig, 2021). According to Lakner et al. 2018, Africa is trapped in a poverty trap, where poverty is so severe that it is impossible to alleviate debilitating issues such as

hunger, sickness, and a lack of infrastructure. These problems, in turn, stifle economic progress and contribute to rural depopulation. This fact cannot be overstated: Africa is plagued by a lack of infrastructure amenities. For a long time, there have been many discussions on Africa's lack of adequate basic infrastructure, such as favourable residential living spaces for its citizens, elegant office buildings, tasteful retail malls, acceptable airports, decent road networks, and reliable electricity grids (Akinshipe and Aigbavboa, 2020).

What initiatives can Africa employ to enhance infrastructure development within the continent? Attraction of Funding to Prioritise Infrastructure development in Africa. According to Kirkpatrick et al. (2004), countries with bigger infrastructure requirements will be more appealing to foreign infrastructure investment. Economic policy, economic structure, promoting, supporting, and political variables are all elements that attract foreign investment. Foreign investors tend to invest more directly in countries with a stronger economic structure and infrastructure. Market extent, infrastructure installations, expert labourers, human resource development, and a wide information network are among the primary structural characteristics of an economy that directly impact foreign investment attractiveness (Barzelaghi,2012).According to McDonald and Bailly (2017), the most valuable characteristics of an investable place for investors are: 1) a strong economy with growth potential, a highly skilled workforce, and resilience to economic downturns and external shocks; and 2) excellent transport connections, both within and beyond the city (nationally and internationally), as well as a transport system capable of keeping up with an expanding economy. To attract investors, the regional government must develop rules to stimulate economic growth. Furthermore, the government system must be modified to be more effective and efficient, such as by eliminating lengthy procedures (Murwito et al., 2013). Facilities and infrastructure, particularly the provision of energy, water and transportation, must be well prepared. If energy and water supplies are unpredictable or transportation costs are extremely high, investors will be particularly concerned (Windhyastiti et al.,2019). Poor transport infrastructure in developing nations is a significant barrier to attracting foreign direct investment. Reduced production costs through facility expansion and improved technological level are two ways to increase the flow of foreign direct investment into a country (Barzelaghi,2012). Strong infrastructure reduces transit costs, creating an incentive for regional and global enterprises to enter, and attracting foreign investment. Weak infrastructure raises business expenses and reduces foreign investment. Inappropriate transportation or the usage of faulty equipment due to communication problems signifies a loss of loyalty for businesses. As a result of the high transportation expenses, they will not choose that place for business. As a result, the infrastructure should create a favorable investment environment for international companies (Van der Waldt, 2014). According to the findings of Khadaroo and Seetanah's (2010) study, transport capital has been a significant component in making the country appealing to foreign direct investors in both the short and long run. In general, infrastructure development should become an important element of the overall strategy to attract FDI inflows. Instead of competing with industrialized nations by giving investment incentives, developing countries are advised to focus on physical infrastructure development in their own countries. This would serve to mobilize domestic and international investments, which would aid in the growth of these countries. However, from a political point of view, the building of new facilities is more appealing than maintenance (Bisbey, 2020).

Infrastructure planning and project preparation enhancement. Taxpayer money should be used wisely, but infrastructure projects should also be more appealing to private investors. As a result, improving government efficiency should be regarded a requirement for nations seeking to increase their access to infrastructure funding (Yescombe and Farquharson, 2018). A life cycle strategy is essential to improve the efficiency of infrastructure projects. While most people think of

cost overruns during the building stage, expenses during the planning, preparation, and procurement stages, as well as the administration and maintenance of infrastructure assets after completion, may all skyrocket. (Bisbey,2020). Improving public governance has the potential to close nearly two-thirds of the infrastructure efficiency gap. To integrate fragmented sectoral plans and build national frameworks in which public investment choices are made transparently and effectively, changes in both sectoral and national governance are necessary. Transparency is required for this to be realised. Countries should develop transparent systems for identifying needs, selecting projects, and planning to combat corruption. Several strategies, tools, and best practices have been created to help governments combat corruption and provide better public services in areas such as education, water, health, and the judiciary (Schütte et al., 2016). Avoid arbitrary project selection by developing a comprehensive infrastructure master plan based on established public requirements over a sufficiently extended period. This would include systematically comparing long-term demands with long-term planning to identify which form of infrastructure would be optimal. Instead of developing a new physical asset, there may be economies in improving soft infrastructure, such as regulatory compliance. To ensure effective allocation of financial resources across all sectors, it is advisable to construct a portfolio strategy over a variety of sectors rather than a single sector (Abiad et al., 2017). To develop an economically feasible pipeline, emphasising quality over quantity will improve efficiency. Ministries are under pressure to provide a large wish list, which is sometimes misinterpreted as the real project pipeline. This "wish list" of projects, which is the result of fragmented and unsystematic project selection procedures, frequently lacks fundamental costing, requirement analysis, and income forecasting information. In a climate of limited public resources, most of these expenditures result in partial or no results (Bisbey,2020). Long-term budgeting is required for long-term planning. However, most nations allocate budgets on a one- to three-year basis within a medium-term framework. While capital expenditures are passed from the central budget to sectoral ministries, operating and maintenance costs are considered expenses under local public budgeting. This is often the rationale for the division of government subsidies into two distinct streams: one for capital grants and the other for operations. This leads to a loss of optimisation in the project's use of public funds (Bisbey, 2020).

Attraction of bankable projects in Africa. Africa's infrastructure finance needs are significant, but implementation ability is inadequate. Access to infrastructure funding is limited by a lack of bankable projects and a lack of well-developed project and programme plans (Ntsimane, 2017). Increased bankability of African infrastructure projects will be achieved by significantly increased funding of early-stage project development activities enabled by new partnerships and incentive programmes. Africa will make qualified legal, technical, and financial professionals accessible to projects from the start, sharing expenses with member countries and developers and recovering its funds at the project's financial closure or through a carried interest (Kaberuka, 2014). Governments and their institutional partners may take decisive action to increase project commercial viability, including assisting in the mitigation of political, currency, and regulatory risks, as well as enhancing the deal flow of bankable projects (Lakmeharan et al., 2020). National governments should encourage and galvanise finance for an infrastructure pipeline that is bankable. Increased supply of 'technical grant-based funding' by donor countries, DFIs, and national ministries of finance to advance projects from feasibility to bankability would aid in unlocking private sector participation. Attracting impact investors will also aid in increasing investment in climate financing initiatives (Rumble & First 2021). Direct finance of project design, planning, and implementation, as well as technical assistance to support these activities, can help develop more bankable projects, attracting private investors and boosting local economies (Ashiagbor et al, 2018). According to Kennedy et al. (2012), developing country governments may stimulate private investment in low-carbon

infrastructure development by giving projects with appealing risk-return profiles, i.e., bankable projects. Additional study backs up the idea that a high return-risk profile is required for obtaining private investment, because private funders only deem a project appealing if it has the potential to generate profits.

Rooting out corruption in infrastructure development in Africa. Corruption is seen to have a greater negative impact on investment choices in Africa than in Asia. After considering other factors such as infrastructure availability (Talvitie, 2017). African nations should enhance their monitoring structures and anticorruption activities so that corruption can be tracked and traced. Furthermore, institutional capacities must be strengthened to fill any gaps in public resource management, tax administration, and foreign trade. The discovery that foreign debt undermines corruption control should raise red lights about how earnings are used in the economy. Most of the debt is used for infrastructure development or discretionary government spending, both of which are notorious conduits for corrupt deals (Zulu, 2018). Corruption has resulted in physical, social, and human deterioration and dereliction within the infrastructure of government and society. The African government must implement transparency devices, technological know-how, and electronic tactics to identify and prevent corruption in all sectors. The introduction of cameras in public locations, as well as computerised voting systems, will help in this regard. Prevention is preferable to treatment (Bakare, 2011). If African governments are serious about weeding out public corruption, punishments against individuals who break public trust should be reinforced rather than loosened (Awofeso & Odeyemi, 2014).

CONCLUSION

Infrastructure is crucial for economic growth and poverty alleviation. Good infrastructure facilitates the movement of goods, services, information, and people. Improving Africa's infrastructure is a necessary but insufficient condition for stimulating economic development and attracting investment to the continent. Because the African infrastructure is so interwoven, regional coordination in infrastructure delivery is crucial. Africa still has a long way to go in terms of developing infrastructure in both urban and rural regions, which is critical to helping Africa overcome its problems. African governments must prioritize infrastructure planning and project preparation since it is a key hindrance to the success of African projects. African governments must develop systems to eliminate corruption during project execution. Finally, African countries must invest in bankable projects to attract investors and prioritize the maintenance of existing infrastructure on the continent.

REFERENCES

- Abiru, M. (2021). Towards Implementing the African Continental Free Trade Area (AfCFTA) Agreement: A Framework to Address Bankability Concerns for African Infrastructure Projects. Available at SSRN 3824639. <https://doi.org/10.2139/ssrn.3824639>
- Adindu, C., Diugwu, I., Yusuf, S., & Musa, M. (2020). Issues of corruption in construction projects and infrastructure development in Nigeria: An empirical approach. In *Supporting Inclusive Growth and Sustainable Development in Africa-Volume I* (pp. 191-200). Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-41979-0_14
- AFDB (2018). Africa's infrastructure: great potential but little impact on inclusive growth. Available at: https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/2018AEO/African_Economic_Outlook_2018_-_EN_Chapter3.pdf (Accessed 19 July 2022).
- Africa Monitor. (2017). Unlocking the African Moment. Available at:

<http://www.africanmonitor.org/wp-content/uploads/2017/04/Rural-Infrastructure-In-Africa.pdf> (Accessed 16 July 2022).

- Ajakaiye, O., & Ncube, M. (2010). Infrastructure and economic development in Africa: An overview. *Journal of African economies*, 19(suppl_1), i3-i12. <https://doi.org/10.1093/jae/ejq003>
- Akinshipe, O., & Aigbavboa, C. (2020). A Theoretical Review of the State of Infrastructure in Africa. In *Proceedings of the International Conference on Industrial Engineering and Operations Management*. Dubai: UAE.
- Arbouch, M., Canuto, O and Vazquez, M. (2020). Africa's infrastructure finance. Available at: <https://www.g20-insights.org/policy-briefs/africas-infrastructure-finance/> (Accessed 12 May 2022).
- Arewa, O. B. (2016). Constructing Africa: Chinese investment, infrastructure deficits, and development. *Cornell Int'l LJ*, 49, 101.
- Ashiagbor, D., Deiana, R., Kappeler, A., Minsat, A., & Nguyen-Quoc, T. (2018). 9. financing infrastructure in africa. *Banking in Africa*, 201.
- Azolibe, C. B., & Okonkwo, J. J. (2020). Infrastructure development and industrial sector productivity in Sub-Saharan Africa. *Journal of Economics and Development*. <https://doi.org/10.1108/JED-11-2019-0062>
- Bakare, A. S. (2011). The crowding-out effects of corruption in Nigeria: An empirical study. *Journal of Business management and Economics*, 2(2), 059-068.
- Barka, H. B., Kabuche, D., Kararach, A. G., & Tou, W. K. S. (2018). FINANCING INFRASTRUCTURE IN AFRICA: THE ROLE OF PENSION FUNDS.
- Barzelaghi, M. T., Dizaji, M., & Laleh, M. M. (2012). The effect of transportation infrastructure on foreign direct investment attraction in Iran. *International journal of economics and finance studies*, 4(2), 153-161.
- Bisbey, J., Nourzad, S. H. H., Chu, C. Y., & Ouhadi, M. (2020). Enhancing the efficiency of infrastructure projects to improve access to finance. *Journal of Infrastructure, Policy and Development*, 4(1), 27-49. <https://doi.org/10.24294/jipd.v4i1.1175>
- Bond, J. (2016). Infrastructure in Africa. *Global journal of Emerging market Economies*, 8(3), 309-333. <https://doi.org/10.1177/0974910116677788>
- Chakamera, C. (2021). Qualitative and Quantitative Effects of Infrastructure on Economic Growth and Productivity in Africa. *Journal of Construction and Built Environment*, 1(1), 26-50.
- Chakamera, C., & Alagidede, P. (2018). The nexus between infrastructure (quantity and quality) and economic growth in Sub Saharan Africa. *International Review of Applied Economics*, 32(5), 641-672. <https://doi.org/10.1080/02692171.2017.1355356>
- Chiweshe, M. K. (2014). The problem with African football: corruption and the (under) development of the game on the continent. *African sports law and business bulletin*, 2, 27-33.
- Creamer Media (2020). Infrastructure maintenance should not be up for debate. Available at : https://www.engineeringnews.co.za/article/infrastructure-maintenance-should-not-be-up-for-debate-2020-09-14/rep_id:4136 (Accessed 01 June 2022).
- Dethier, J. J. (2015). Infrastructure in Africa. *The Oxford handbook of Africa and economics*, 2.
- Development Bank of Southern Africa (2019). Why there's a funding gap in African projects. Available at: <https://www.dbsa.org/article/why-infrastructure-project-funding-isnt-improving-africa> (Accessed 15 May 202).
- Dupasquier, C., & Osakwe, P. N. (2006). Foreign direct investment in Africa: Performance, challenges, and responsibilities. *Journal of Asian Economics*, 17(2), 241-260. <https://doi.org/10.1016/j.asieco.2005.07.002>
- Foster, V., & Pushak, N. (2010). Liberia's Infrastructure. <https://doi.org/10.1596/27770>

- Fourie, J. (2008). A note on infrastructure quality in South Africa. *Development Southern Africa*, 25(4), 481-494. <https://doi.org/10.1080/03768350802318639>
- Gillanders, R. (2014). Corruption and infrastructure at the country and regional level. *Journal of Development Studies*, 50(6), 803-819. <https://doi.org/10.1080/00220388.2013.858126>
- Gwilliam, K. (2008). The Burden of Maintenance: Roads in Sub-Saharan Africa. Available at : https://roadsforwater.org/wp-content/uploads/2013/10/the-burden-of-maintenance_roads-in-SSA.pdf (Accessed: 15 July 2022).
- Herrera, R. F., Sánchez, O., Castañeda, K., & Porras, H. (2020). Cost overrun causative factors in road infrastructure projects: A frequency and importance analysis. *Applied Sciences*, 10(16), 5506. <https://doi.org/10.3390/app10165506>
- Holtz, L and Heitzig, C. (2021). Figures of the week: Africa's infrastructure paradox. Available at : <https://www.brookings.edu/blog/africa-in-focus/2021/02/24/figures-of-the-week-africas-infrastructure-paradox/> (Accessed 10 May 2022).
- Hukka, J. J., & Katko, T. S. (2015). Resilient asset management and governance for deteriorating water services infrastructure. *Procedia Economics and Finance*, 21, 112-119. [https://doi.org/10.1016/S2212-5671\(15\)00157-4](https://doi.org/10.1016/S2212-5671(15)00157-4)
- Jerome, A. (2011). Infrastructure, economic growth and poverty reduction in Africa. *Journal of infrastructure development*, 3(2), 127-151. <https://doi.org/10.1177/097493061100300203>
- Kennedy, C., & Corfee-Morlot, J. (2012). Mobilising investment in low carbon, climate resilient infrastructure.
- Kenny, C. (2007). Construction, corruption, and developing countries. *World Bank Policy Research Working Paper*, (4271). <https://doi.org/10.1596/1813-9450-4331>
<https://doi.org/10.1596/1813-9450-4235>
<https://doi.org/10.1596/1813-9450-4271>
- Khadaroo, A. J., & Seetanah, B. (2010). Transport infrastructure and foreign direct investment. *Journal of International Development: The Journal of the Development Studies Association*, 22(1), 103-123. <https://doi.org/10.1002/jid.1506>
- Khumalo, M. J., Choga, I., & Munapo, E. (2017). Challenges associated with infrastructure delivery.
- Kirkpatrick, C., Parker, D., & Zhang, Y. F. (2004). *Foreign direct investment in infrastructure in developing countries: does regulation make a difference?* (No. 1649-2016-135904).
- KOYUNCU, J. Y., & ÜNVER, M. (2017). The association between corruption and globalization in African countries. *Sosyal Bilimler Araştırma Dergisi*, 6(4), 20-28.
- Lakmeeharan, K., Manji, Q., Nyairo, R., & Poeltner, H. (2020). Solving Africa's infrastructure paradox. *McKinsey & Company*, 6, 17-25..
- Lakner, Z., Kiss, A., Merlet, I., Oláh, J., Máté, D., Grabara, J., & Popp, J. (2018). Building coalitions for a diversified and sustainable tourism: Two case studies from Hungary. *Sustainability*, 10(4), 1090. <https://doi.org/10.3390/su10041090>
- Lay, J. (2017). The G20 Compact with Africa: An Incomplete Initiative.
- Lawal, G. (2007). Corruption and development in Africa: challenges for political and economic change. *Humanity and social sciences Journal*, 2(1), 1-7.
- Leigland, J., & Roberts, A. (2007). The African project preparation gap: Africans address a critical limiting factor in infrastructure investment.
- Lakmeeharan, K., Manji, Q., Nyairo, R., & Poeltner, H. (2020). Solving Africa's infrastructure paradox. *McKinsey & Company*, 6, 17-25.

- Lorraine, T. M., & Rimuka, D. (2021). Water supply interruptions in Umzinto Water System: Ugu District, South Africa. *International Journal of Water Resources and Environmental Engineering*, 13(2), 135-153.
- Luiz, J. (2010). Infrastructure investment and its performance in Africa over the course of the twentieth century. *International Journal of Social Economics*.
<https://doi.org/10.1108/03068291011055450>
- Lumumba, P. A. T. R. I. C. K. (2011). Corruption: the bane of Africa. *A chapter in corruption in Africa: A threat to justice and sustainable peace*, 17-46.
- McDonald, R., & Bailly, A. (2017). What investors want: A guide for cities. *no. July*.
- Mitullah, W. V., Samson, R., Wambua, P. M., & Balongo, S. (2016). Building on progress: Infrastructure development still a major challenge in Africa.
- Möykkynen, H., & Pantelias, A. (2021). Viability gap funding for promoting private infrastructure investment in Africa: Views from stakeholders. *Journal of Economic Policy Reform*, 24(2), 253-269. <https://doi.org/10.1080/17487870.2020.1785296>
- Murwito, I.S., Rheza, B., Mulyati, S., Karlinda, E., Riyadi, I.A. and Darmawiasih, R., 2013. *Inter-Regional Cooperation in Trade as an Alternative Policy to Improve Regional Economy*. Regional Autonomy Implementation Monitoring Committee.
- Ngezahayo, E., Burrow, M., & Ghataora, G. (2019). Rural Roads—roles, challenges and solutions for Sub-Saharan Africa’s sustainable development. *International Journal of Latest Engineering and Management Research*, 4(10), 70-79.
- Nhleko, M., & Inambao, F. L. (2019). Impact of municipal infrastructure conditions and maintenance programs in determining municipal service delivery effectiveness, cost effectiveness and energy efficiency
- Ntsimane, T. (2017). DBSA: a 21st century African development finance institution supporting the development of sub-Saharan Africa through the achievement of the sustainable development goals. *Development Finance Agenda (DEFA)*, 3(4), 24-26.
- Oluwatayo, I. B., & Ojo, A. O. (2018). Walking through a tightrope: The challenge of economic growth and poverty in Africa. *The Journal of Developing Areas*, 52(1), 59-69.
<https://doi.org/10.1353/jda.2018.0004>
- Organisation for Economic Co-operation and Development (2018). Quality Infrastructure in 21st Century Africa. Available at: <https://www.oecd.org/dev/Africa-Quality-infrastructure-21st-century.pdf> (13 June 2022).
- Awofeso, O., & Odeyemi, T. I. (2014). The impact of political leadership and corruption on Nigeria’s development since independence. *Journal of Sustainable Development*, 7(5), 240-253.
<https://doi.org/10.5539/jsd.v7n5p240>
- Perkins, P., Fedderke, J., & Luiz, J. (2005). An analysis of economic infrastructure investment in South Africa. *South African Journal of Economics*, 73(2), 211-228. <https://doi.org/10.1111/j.1813-6982.2005.00014.x>
- Reddy, P. S. (2016). The politics of service delivery in South Africa: The local government sphere in context. *TD: The Journal for Transdisciplinary Research in Southern Africa*, 12(1), 1-8.
<https://doi.org/10.4102/td.v12i1.337>
- Rumble, O., & First, J. (2021). Accelerating Private Sector Climate Finance in Africa.
- Sekkat, Khalid. and Veganzones-Varoudakis, M (2004). Trade and Foreign Exchange Liberalization, Investment Climate and FDI in the MENA Countries, Working Papers, No. 39, world bank, pp. 8.

- Talvitie, A. (2017). Observed differences in corruption between Asia and Africa: the industrial organization of corruption and its cure. *Transportation Research Procedia*, 25, 4472-4490. <https://doi.org/10.1016/j.trpro.2017.05.357>
- Van der Waldt, G. (2014). Infrastructure project challenges: The case of DR Kenneth Kaunda district municipality. *Journal of construction project management and innovation*, 4(1), 844-862.
- Windhyastiti, I., Hidayatullah, S., & Khourouh, U. (2019). How to increase city investment attraction. *International Journal of Scientific and Technology Research*, 8(9), 1070-1073.
- United Nations (2020). Infrastructure for Poverty Reduction and Economic Development in Africa. Available at : [Infrastructure for Poverty Reduction and Economic Development in Africa ... Sustainable Development Knowledge Platform \(un.org\)](#) (16 May 2022).
- Yescombe, E. R., & Farquharson, E. (2018). Chapter 2 – What are public-private partnerships. *Public-Private Partnerships for Infrastructure*, 2nd ed.; Yescombe, ER, Farquharson, E., Eds, 7-24. <https://doi.org/10.1016/B978-0-08-100766-2.00002-4>
- Zulu, J. J. (2018). Reversing the scourge of corruption in Southern Africa. *Journal of African Transformation Revue des mutations en Afrique*, 66.