

THE EFFECT OF PUBLIC INFRASTRUCTURE INVESTMENT ON LOCAL RESIDENTS IN JOHANNESBURG, SOUTH AFRICA

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Summary

Infrastructure investment is one of the most important prerequisites for poor nations to accelerate or sustain their development and meet the Millennium Development Goals (MDGs) established by the United Nations in 2000. Furthermore, Johannesburg's future infrastructure investment demands considerably outnumber the amount invested by the government, the private sector, and other stakeholders, resulting in a large financial imbalance. Johannesburg's government, through Johannesburg's National Treasury, has set in motion infrastructure-investment programs aimed to continue establishing numerous economic and social infrastructure programs to boost economic growth and job creation in Johannesburg. These programs include the RDP and NGP

320 participants were used in the research survey of this study. 160 participants, which are a total of 50% of the sample were selected from two neighborhoods in the suburban area of Sandton City, an affluent urban section in Johannesburg, and the rest of the 50% was sampled from Alexandra, the poorest neighborhood in Johannesburg. Ultimately, the Literature reviewed by this study suggests that a strong and directly proportional relationship exists between investments in infrastructure by countries of all statutes, specifically Johannesburg. This study's primary research agrees with the literature on this subject as it also suggests that infrastructure investment is a key component of stimulating economic activity and ultimately improving people's livelihoods

AZ INFRASTRUKTÚRA KÖZBEFEKTETÉSÉNEK HATÁSA DÉL-AFRIKA JOHANNESBURGI HELYI LAKOSAIRA

Összefoglalás

Az infrastrukturális beruházások az egyik legfontosabb előfeltétele annak, hogy a szegény nemzetek felgyorsítsák vagy fenntartsák fejlődésüket, és teljesítsék az Egyesült Nemzetek Szervezete által 2000-ben meghatározott Millenniumi Fejlesztési Célokot (MDG-k). Ezenkívül Johannesburg jövőbeli infrastrukturális beruházási igényei jóval meghaladják a kormány által befektetett összeget, a magánszektor és más érdekeltek, ami jelentős pénzügyi egyensúlyhiányhoz vezet. Johannesburg kormánya a johannesburgi államkincstáron keresztül infrastrukturális beruházási programokat indított el, amelyek célja számos gazdasági és társadalmi infrastrukturális program létrehozása a johannesburgi gazdasági növekedés és munkahelyteremtés fellendítése érdekében. E programok közé tartozik az RDP és az NGPA jelen tanulmányban használt kutatási felmérésben 320 résztvevő mintát használtak. 160 résztvevőt, akik a minta összesen 50%-át képezik, két városrészről, a johannesburgi tehető városrész, Sandton City elővárosi körzetéből választották ki, a többi 50%-ot pedig Alexandrából, Johannesburg legszegényebb negyedéből választották ki. Végül soron a jelen tanulmány által áttekintett irodalom azt sugallja, hogy erős és egyenesen arányos kapcsolat áll fenn az összes törvényes ország, különösen Johannesburg infrastrukturális beruházásai között. A tanulmány elsődleges kutatása megegyezik a témában megjelent szakirodalommal, mivel azt is sugallja, hogy az infrastrukturális beruházások kulcsfontosságú elemei a gazdasági tevékenység ösztönzésének és végül soron az emberek megélhetésének javításának.

Introduction

Investment in public infrastructure is thought to be one of the most important elements in tackling Johannesburg's primary socioeconomic issues of high unemployment, income inequality, and poverty. The country's economic development has not produced enough jobs to alleviate these problems. Johannesburg's government thinks that through increasing public infrastructure investment, a Labor-absorbing development path may be achieved. A dynamic CGE analysis is used in this study to assess the effects of increased public economic infrastructure investment on economic growth and employment. According to the findings, increased public infrastructure expenditure is generally favorable to Johannesburg's economy.

Johannesburg's economy is undoubtedly plagued with poverty, inadequate and poorly situated infrastructure, consistently high unemployment rates, and low growth rates. Despite these economic problems, Johannesburg has done well by global standards for the most of the post-1994 period (Presidency, 2020).

Johannesburg's economy benefited from the surge in gold prices in the late 1970s and early 1980s. However, a downward trend ensued because of the gold price returning to lower levels, political instability, and the application of financial sanctions (Faulkner–Loewald, 2018; Fedderke–Simkins, 2019). Since the mid-1980s, the economy has been under significant strain due to sluggish economic growth, a large budget deficit, limited foreign exchange reserves, and disinvestment (Presidency, 2020). The administration recognized that economic conditions were unsustainable, and in the late 1980s, discussions to address political constraints began.

The importance of infrastructure investment

The importance of infrastructure investment to a country's socio-economic progress cannot be overstated (Percze et al. 2020). Citizens' access to markets, as well as livelihood opportunities and services such as clean water, education, health, transportation, and communication, is hampered by insufficient or bad infrastructure. According to the International Labour Organization (ILO), infrastructure development is not a direct 2030 Agenda for sustainable development Goals. But without it, many of the targets will not be reached, and sustainable infrastructure will not be built.

Infrastructure development is required for poverty reduction and job creation in developing countries. However, fast infrastructure modernization is required for advanced economies to expand sustainably. A well-developed infrastructure enhances the general population's living circumstances and the competitiveness of private enterprises. For example, the most recent European Union expansion emphasized the need of bridging the infrastructural gap between old and new member states.

It is argued that unless new member countries build good basic infrastructure in sectors such as electricity, gas, water, telecommunications, postal services, local transportation, and waste disposal, the vision of a modern Europe with favorable living conditions in all regions will remain a pipe dream.

Infrastructure investment in developing nations

Infrastructure investment is one of the most important prerequisites for poor nations to accelerate or sustain their development and meet the Millennium Development Goals (MDGs) established by the United Nations in 2000. Furthermore, Johannesburg's future infrastructure investment demands considerably outnumber the amount invested by the government, the private sector, and other stakeholders, resulting in a large financial imbalance.

According to a World Bank assessment (2018), developing nations now invest 3-4 percent of their GDP in infrastructure each year; however, to meet broader economic development and poverty reduction targets, they would need to invest an additional 7-9 percent. This estimate includes Johannesburg.

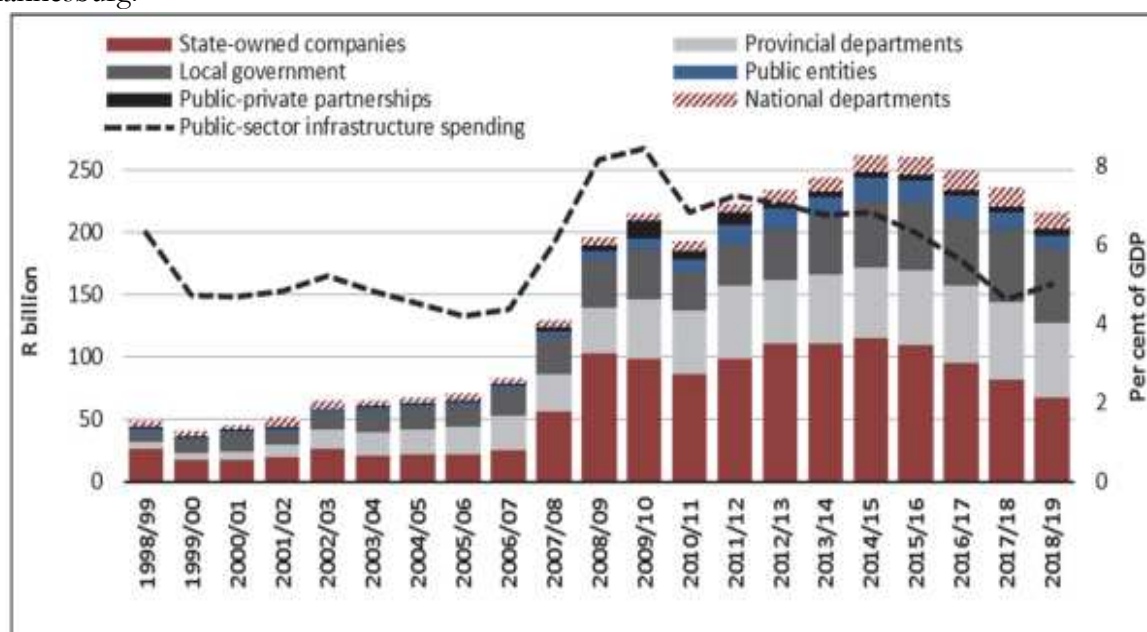


Figure 1: Public sector infrastructure spending

Source: National Treasury 2020

Rationale

The study will contribute to the body of knowledge based on current trends and challenges that public and private infrastructure investment confronts in Johannesburg. Investors will be able to use knowledge from the findings of the paper to familiarize themselves with current conditions in Johannesburg and in turn gain motivation to invest in Johannesburg. This will increase their profit margins and lastly, help to reduce the high levels of unemployment through construction projects initiation, resulting in improved socio-economic conditions of general Johannesburg residents.

This study seeks to determine the relationship between infrastructure investment and socio-economic benefits for the people of Johannesburg. It does not only consider an investment by the government of the said nation, but also other parties related hereto. It will be an exploratory quantitative study (Bhattacharjee, 2018).

According to (Bhattacharjee, 2018), exploratory research can be used to determine the extent of a problem. This is suitable for this study as it will enable a better understanding of the issues surrounding investment in the selected industry sector and determine its impact on socio-economic benefits on Johannesburg's people. The quantitative nature of this paper will allow the researcher

to probe the subject with more depth using closed-ended questions. The study will adopt an action research approach as it will be practical in nature, to find answers concerning the relationship between investing in infrastructure by government stakeholders and socio-economic benefits for the people of Johannesburg. (Cooper–Chandler, 2020), agree and assert that action research is meant to address complex and practical problems.

Research Objective

O1. To identify the relationship between infrastructure investment and socio-economic benefits for the people of Johannesburg.

Research question

Q1. What is the relationship between infrastructure investment and socio-economic benefits for the people of Johannesburg?

Materials and Method

This study adopts a quantitative research method. This method is predominantly used to emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. This method is suitable for this paper because its goal is to determine the relationship between infrastructure investment and its socio-economic impacts on ordinary Johannesburg residents. Quantitative research designs are either descriptive (subjects usually measured once) or experimental (subjects measured before and after a treatment). A descriptive study establishes only associations between variables; this then directs this study to follow a descriptive design.

Research Design

Descriptive research aims to describe a population, situation, or phenomenon accurately and systematically. It can answer what, where when, and how questions, but not why questions. A descriptive research design can use a wide variety of research methods to investigate one or more variables. Unlike in experimental research, the researcher does not control or manipulate any of the variables, but only observes and measures them. Descriptive research is usually defined as a type of quantitative research, though qualitative research can also be used for descriptive purposes. The research design of this study will be carefully developed to ensure that the results are valid and reliable. The design will adopt survey research.

A survey will enable this study to gather large volumes of data that can be analyzed for frequencies, averages, and patterns. Certain aspects will be explored in the survey to achieve this study's objectives. The survey will be made electronically and distributed to a sample using social media of two targeted groups mainly being residents of Johannesburg from the well-established areas and those who reside in less developed sections of Johannesburg in February 2022. The areas are chosen specifically because of the difference in GDP per capita in each of these areas. The areas in

question will be Sandton and Alexandra. This sampling method will yield unbiased results because it represents all income brackets of general Johannesburg residents.

Data collection protocol

A sample size of 320 participants was used in the research survey used. 160 participants, which are a total of 50% of the sample were selected from two neighborhoods in the suburban area of Sandton City. Sandton is an affluent area in the Gauteng Province, South Africa, and forms part of the City of Johannesburg Metropolitan Municipality. The name of the town came from the combination of two of its suburbs, Sandown and Bryanston. In 1969 Sandton was promulgated as a municipality but lost its status as an independent town after the re-organization of South African local governments after Apartheid ended.

The neighborhoods this study selected were Sandown and Bryanston. The remaining 50% of the study stems from an adjacent neighborhood, Alexandra. Alexandra, informally abbreviated to "Alex," is a township in the Gauteng province of South Africa. It forms part of the City of Johannesburg Metropolitan Municipality and is located next to the wealthy suburb of Sandton. It is commonly known as "Gomora" among residents. Alexandra is bounded by Wynberg on the west, Marlboro, and Kelvin on the north, Kew, Lombardy West, and Lombardy East on the south.

Alexandra is one of the poorest urban areas in the country. Alexandra is situated on the banks of the Jukskei River. In addition to its original, reasonably well-built houses, it also has a large number (estimated at more than 20,000) of informal dwellings or shacks called "imikhukhu".

Analysis

In the evaluation of the data collected by this study, each question and its respective answers are holistically analyzed. Quantitative analysis of the results is used with the aspiration to provide conclusions from the observations. This data cannot be manipulated but rather perceived in a descriptive sense. Statistical analysis of the data from the participants' responses shows that in fact, only 6.5% of the sample rates infrastructure development as excellent in their respective residential areas. This thus shows a need for continuous development and maintenance.

The data also proves that 35% of the sample is of the view that employment from construction-project initiation is at a low. This then suggests that infrastructure projects in Johannesburg are not employing enough of the city's residents. The data shows also that public services have lacking infrastructure. This information addresses the poor maintenance of infrastructure by the South African government, particularly the Johannesburg Metropolitan municipality.

42% of the sample's respondents' use public transport daily in Johannesburg. With that observation being made, this study also considers the maintenance routine of public transport and its routes. The study discovers that maintenance of public roads and vehicles is seldom done in both Sandton and Alexandra. This is owed to the fact that 61% of the respondents believe, with firsthand evidence that this is seldom done in their neighborhoods. The effect this has then is that public infrastructure is in a poor condition and that may pose a threat to people's livelihoods.

Literature proves that recently, infrastructure investment has been directed toward stimulating economic activity, and it has been identified as one of the key economic growth and job creation drivers by the Accelerated and Shared Growth Initiative of Johannesburg (ASGISA) of 2019, the New Growth Path (NGP) of 2011, and the National Development Plan (NDP) of 2018.

The literature reviewed by this paper also states that Johannesburg's government, through Johannesburg's National Treasury has set in motion infrastructure-investment programs aimed to continue establishing numerous economic and social infrastructure projects to boost economic growth and job creation in Johannesburg.

These programs include the RDP and NGP. Ultimately, the Literature reviewed by this study suggests that a strong and directly proportional relationship exists between investments in infrastructure by countries of all statutes, specifically Johannesburg. This however still has not been sufficient to address the problems surrounding this aspect. This paper, through analysis of the primary research, suggests that the plans set out be re-evaluated by the local authorities in seeking to address the infrastructure challenges proven by the research survey utilized in this study.

Conclusions

In conclusion, infrastructure development is one of the most important aspects in seeking to ensure adequate socio-economic stability for residents. In Johannesburg, there are high levels of unemployment and deteriorating infrastructure. This study suggests that the public sector should provide heavy investment initiatives to provide a two-fold solution to the problems of the city. On the one end, it will ensure better infrastructure delivery and reduce the soaring unemployment rates in the metropolitan.

The population of Johannesburg, represented by the sample of this study relies on a lot of public infrastructure to access essential services and to commute to their respective daily destinations. Roads, rails, and public vehicles are however in under-impressing conditions. This then suggests a difficulty in the moving of people within the area. The study, therefore, suggests further work on how to better the situation. Currently, this paper does not propose a defined solution to the problem due to time constraints as the study was done in a space of a single semester. A recommendation however to overcome this challenge would be forming a committee to investigate ways of boosting the infrastructure through employing residents.

Finally, institutions such as schools, hospitals, government offices, and other recreational facilities are in poor condition. This means people of the city have limited access to good medical health close to where they live. They do not have educational facilities that are of high-quality concerning safety and conduciveness. These two factors, coupled with poor recreational facilities suggest that the youth may have idle time on their hands. One of Johannesburg's biggest problems is crime and with schools and recreational areas not up to par, the youth is more susceptible to engaging in criminal activity. The study then suggests heavy investment in this area of public infrastructure as well.

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References

- [1.] Bhattacharjee, A. (2018): *Social science research: Principles, methods, and practices*. University of South Florida. Textbooks Collection. 3.
- [2.] Cooper, D.R. – Schindler, P.S. – Sun, J. (2020): *Business research methods* (Vol. 9, pp. 721-744). New York: McGraw-Hill Higher Education
- [3.] Fedderke, J.W. – Perkins, P. – Luiz, J.M. (2018) Infrastructural investment in long-run economic growth: South Africa 2000–2020. *World development*, 34(6), pp.1037-1059.
- [4.] Mbanda, V. – Chitiga-Mabugu, M. (2017): Growth and employment impacts of public economic infrastructure investment in South Africa: a dynamic CGE analysis. *Journal of Economic and Financial Sciences*, 10(2), pp.235-252.
- [5.] National Treasury (2018). National Budget Review. Accessed on 30/09/2021 Available online at: <http://www.treasury.gov.za/documents/nationalpercent20budget/2018/review/chapter7.pdf>
- [6.] Ncube, M. – Shimeles, A. – Verdier-Chouchane, A. (2018): Johannesburg's Quest for Inclusive Development. African Development Bank, *Working Paper Series* No. 150. DOI:[10.1093/acprof:oso/9780199671656.003.0042](https://doi.org/10.1093/acprof:oso/9780199671656.003.0042)
- [7.] New Growth Path (NGP) (2011): Accessed on 30/09/2021 Available online at: <http://www.economic.gov.za/communications/publications/new-growth-path-series>
- Percze, A ; Gyuricza, C ; Birkás, M ; Szemők, A ; Ujj, A (2020): Extension of the tillagepan compaction and its impacts on some crop production factors *Agrikultúra - Agriculture (Nitra)* 48(6), 282-290.
- [8.] Phillips, S. – Goldman, I. – Gasa, N. – Akhalwaya, I. – Leon, B. (2014): A focus on M&E of results: An example from the Presidency, South Africa. *Journal of Development Effectiveness*, 6(4), pp.392-406. DOI: [10.1080/19439342.2014.966453](https://doi.org/10.1080/19439342.2014.966453)
- [9.] Rostow, W. (1959): The Stages of Economic Growth. *The Economic History Review*, Vol. 12 (1): 1 – 16. <https://onlinelibrary.wiley.com/doi/10.1111/j.1468-0289.1959.tb01829.x>
- [10.] Vukeya, V. (2015): The impact of infrastructure investment on economic growth in Johannesburg. Doctoral dissertation, University of Zululand.
- [11] Koroseczné P. R. – Koponicsné Gy. D. (2019): The Analysis of the Cross-border Corporate Profit's Taxation. *Regional and Business Studies*, 11(2), 49–63. <https://doi.org/10.33568/rbs.2408>

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