



Public Infrastructure and Its Impacts on Social Inclusion and Foster Economic Growth in South Africa

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Abstract

The study focuses on the inadequate infrastructure, and its impacts on social inclusion and faster economic growth in South Africa. It is conducted with the aim of trying to close the gaps that may have been left out by other scholars. In nature this is a qualitative study using interpretative approach of the existing literature. The in order to achieve its objectives information were collected through the existing literatures including journals, books, reports and other existing sources available online and in libraries.

Examining the findings from the literature, it was apparent that inadequate infrastructure in South Africa has serious consequences on the population mainly from those historically disadvantaged group mainly Blacks. In addition, inadequate infrastructure remains obstacle to social inclusion.

Keywords: Public Infrastructure; Impacts; Social Inclusion; Economic Growth; South Africa

Introduction and Background of the Study

According Dubow S [1] apartheid is a policy or system of segregation or discrimination on grounds of race. The apartheid system in South Africa affected the development of infrastructure and the economy. Apartheid government oppressed black people and favoured whites' people which resulted in inequality in terms of development and economy in South Africa. Black people were socially excluded in education, healthcare, and municipal services because of poor infrastructure. The economic and social impacts of apartheid are still present in South African society. It is worth mentioning that the apartheid state made investments in infrastructure that accommodate only the white minority and excluded the majority of South African citizen.

According to More MP [2] Social exclusion toward black people contributed to more poverty and inequality between

black people and whites' people. During apartheid, black people were located in townships and rural areas with inadequate infrastructure. There was a huge gap between Black and White people in South Africa. The apartheid system forced people to stay in informal houses and on land that they had no legal claim to it. Informal houses were extremely overcrowded and were cut off from infrastructures, such as electricity and water. Black people were not given the land but the land was given to white elites. The African National Congress was elected and the leaders-imposed policies to attract and maintain the international investment, to save the economy of the country.

According to Hoogveen JG, et al. [3] in 1994 democratic government was introduced and it came up with freedom for those who were oppressed by apartheid. The democratic government had to provide infrastructure development in the areas that were not developed, especially areas where

black people were located. There is different infrastructure that needs to be improved including, schools, housing, healthcare, electricity, and water network infrastructure. However, in 1994 many areas need to be developed because the apartheid system was focusing on developing certain areas. Inadequate infrastructure affects economic growth. Poor infrastructure played a huge role in limiting people's opportunities to get employed and getting quality education and quality healthcare service.

Bantu education that was imposed on black people by the apartheid government also contributed to poor education. The apartheid government invested a small amount of money to improve education and facilities in black communities. Black people were denied to get quality education, black people were given an education system that will limit educational potential and remain in the working class. Bantu education contributed to social exclusion because students who received Bantu education were denied to work in some workplaces. Poor maintenance in the schools was affecting students because some classrooms were in a proper position for students to learn and toilets were not clean which cause poor hygiene and children were affected by different diseases. Some schools were far in other areas, students had to go long way to attend school. In rural areas, there are no bridges students had to walk in the water when they were going to school. Inadequate infrastructure affected poor people, particularly black people [4].

According to Weng L, et al. [5] agricultural and industrial use is limited because of poor infrastructure in South Africa which affects the rapid economic growth. In South Africa, there is an issue of informal settlements due to poor infrastructure development. There is no easy access to the African market for world investors because of poor transportation, communication, water, and electricity infrastructure. Inadequate infrastructure resulted in many issues including the high level of poverty because of unemployment. Inadequate infrastructure plays a huge role in social exclusion and lower economic growth. The development of infrastructure paves the way in reducing poverty, unemployment, and skilful people. The development of infrastructure also improves the quality of education and standard of living for people [6].

According to Lowenberg AD [7] during apartheid in South Africa, many countries were against the apartheid system that was taking place in South Africa. However, South Africa lost foreign investments which affected the economy because many countries were refusing to continue and build relationships with South Africa because of the apartheid system. Losing many investments affected South Africa because there were no longer able to deliver services and

that was where infrastructure development was affected. South Africa was no longer able to invest more in the development of infrastructure due to a shortage of funds. Many infrastructures that were already developed were not getting proper maintenance and many people lost their jobs. No job opportunities were created for South African people.

Aims and Objectives of the Study

According to Toit AD [8] South Africa faces the issue of inadequate infrastructure which contributes to social exclusion and lower economic growth. This problem of inadequate infrastructure affects many people in South Africa, particularly poor people. It is important to investigate how inadequate infrastructure affects people in South Africa. This study aims to explore how inadequate infrastructure has negative impacts on social inclusion and fostering economic growth.

Understanding Infrastructure on Social Inclusion and Faster Economic Growth

The aim literature review is to have a full understanding of the problem which is inadequate infrastructure in South Africa. The literature review contains a search into the activities and findings of the researchers and authors who have researched inadequate infrastructure. According to Fedderke JW, et al. [9] infrastructure plays an important role in social inclusion and faster economic growth. It allows society to have access to quality education which will pave way for students to have a proper future to improve and change their standard of living. Access to healthcare, infrastructure allows citizens to get proper healthcare. However, South Africa has inadequate infrastructure which contributes to social exclusion because people who are affected by poor infrastructure do not have access to social facilities. Social exclusion results in a poor standard of living, poverty, and poor health [10]. Inadequate infrastructure affects faster economic growth because it increases the unemployment rate, limit business opportunities for many people in South Africa. Affects foreign investment because other countries do not want to invest in the country that has the issue of poor infrastructure. Agriculture is also disrupted because of poor transport infrastructure and inadequate water supply.

Inadequate Infrastructure

According to Buhr W [11] Infrastructure refers to physical building and facilities that is required for the function of the society, such as roads, railways, buildings, schools, power, and water supplies. In his research focus on how poor infrastructure affects social and economic development. Inadequate infrastructure refers to poor facilities that

contribute to social development and economic growth. Several factors contribute to poor infrastructure including, insufficient funds, poor development resources, and poor maintenance. One would argue that corruption is also playing role in poor infrastructure. Fourie J [12] indicated that South Africa is experiencing the issue of inadequate infrastructure which contributes to social exclusion and lower economic growth. This issue affected many people in South Africa. Inadequate infrastructure remains a major issue towards South Africa achieving its full economic growth potential. Greater economic activities, social inclusion, and increase competitiveness are affected by inadequate public facilities, transport, poor housing, communication, water, and power infrastructure. The world has a desire to do business with South Africa but finds it difficult to access the South African market because of inadequate infrastructure.

According to Jimenez E [13] Physical infrastructure includes transportation, power, and communication, whereas, social infrastructure includes education, health, sanitation, water supply, and sewage disposal. Without these infrastructures, South Africa will not achieve the growth required for a country to be successful. South African economic growth, development, and social inclusion are dependent on these infrastructures. Inadequate infrastructure is serious prevention to economic growth and development which results in low trade with other countries. Studies have shown that South Africa has poor roads, rails, and harbor infrastructure. Furthermore, inadequate infrastructure reduces the national economy every year. Inadequate infrastructure has also contributed to poor service delivery to many areas in South Africa, however, this issue needs to be fully addressed to come up with a permanent solution in the development of South Africa. Most developed countries have invested inadequate infrastructure; therefore, South Africa has to adopt more investment in infrastructure.

Educational Infrastructure

According to Khumalo B, et al. [14] education is very important for the development of the country, it contributes to producing intellectuals that can influence the development of society and the economy. Inadequate infrastructure in schools, colleges, and universities contributes to social exclusion and lower economic growth of the country. Insufficient funds for infrastructure development and maintenance contribute to poor infrastructure. Students are imposed to quantity education because of poor infrastructure, shortages of classes, labs, computer rooms, and libraries result in poor education which affects the future of the students and the future of South Africa as a whole. The number of poor students is not getting quality education because of a shortage of resources. South African government does not invest in educational infrastructure.

Inadequate educational infrastructure imposes broken and unequal education which perpetuates poverty and inequality in the country. The South African education system is characterized by poor infrastructure, poor educational outcomes, inequality, and overcrowded classrooms. Poor infrastructure in public schools, including poor sanitation, is increasing in South Africa because of inappropriate maintenance. Inadequate infrastructure also contributes to poor safety in public schools which puts the lives of teachers and students in danger. Some public schools do not have even electricity. Limited schools in South Africa, some children must walk a long distance to attend school because there is a limited number of schools [15].

According to Ntsala M, et al. [16] students are also contributing to poor infrastructure because they do not take care of the school facilities or buildings. Some students are even vandalizing school facilities, such as breaking windows, doors, and toilets. The government is trying to build and maintain schools, but students are continuing to vandalize the buildings. Students' behavior is also affecting for the future generation. Furthermore, community members are also vandalizing school facilities when they are protesting, they burn school facilities which destroy the infrastructure of the community. They do not burn schools only they also burn libraries which affect the future of students. The issue of poor infrastructure is also caused by community members.

Healthcare Infrastructure

According to Wouters B, et al. [17] healthcare infrastructure is regarded as essential in many countries, including South Africa because it plays a huge role in saving the lives of people and making sure that people are living a healthy lifestyle. Healthcare infrastructure depends on water and power supply to function properly and actively. However, South Africa is facing the issue of inadequate infrastructure in public hospitals and clinics which results in social exclusion. Many people are not getting quality healthcare because of poor infrastructure. The majority of people in South Africa are dependent on public hospitals and clinics to get first aid because they do not afford to go to private hospitals; therefore, it is difficult for people to get help from public hospitals and clinics. Furthermore, Covid-19 showed the world that is important to invest in healthcare infrastructure to provide quality healthcare to people.

Healthcare contributes to the economic growth of the country because it creates job opportunities for doctors, nurses, cleaners, and administration. Thus, inadequate infrastructure limits job opportunities for different fields which affect the economic growth of the country [18]. Poor healthcare infrastructure limits the citizens to seek medical attention. For example, South Africa tried to pass a

national healthcare bill that allows all people to be able to afford an insurance policy. Thus, it is impossible because there is an error in national healthcare policies. Inadequate infrastructure contributes to poor quality health services and that holds back progress on improving health in South Africa.

Transport Infrastructure

According to Findley L, et al. [19] transport infrastructure is very important in the country because it plays a huge role in the economic development of the country. However, South Africa is affected by the issue of inadequate transport infrastructure which has negative effects on transportation and the economy. In South Africa roads and railways are poor. Public passenger transportation systems do not meet the needs of the increasingly densely populated and trafficked urban center. Poor maintenance of physical infrastructure contributes to inadequate transport infrastructure. This poor development of transportation infrastructure affects the economy of the country. Road and railways are poor which affects imports and exports of goods in the country. Transport difficulties have been a major force tending to inhibit industrialization altogether.

According to Limao N, et al. [20] South Africa is experiencing poor performances in protectionist trade policies and high transport costs because of poor infrastructure and unsuitable transport policies. Poor infrastructure is mostly affecting poor people in rural areas. People are also finding it difficult to find formal jobs because of poor transport infrastructure which affects public transport. South African government does not invest in the development of infrastructure which affects the economy and it also makes the lives of people to be difficult. Even the tourism industry is affected because of inadequate infrastructure.

Water and Electricity Infrastructure

Water and electricity infrastructure plays a huge role in economic growth, social inclusion, and poverty reduction. According to Perkins P, et al. [6] in South Africa, some areas do not have access to electricity and access to piped water. Poor electricity infrastructure affects the industrialization process because it decreases job opportunities for people. Many citizens are unemployed because of poor electricity infrastructure. South African electricity is produced by Eskom which is affected by debt which indicates that it is not easy for the government to improve and maintain electricity infrastructure because of debt. Many workers from Eskom were retrenched from their jobs because of issues that is faced by Eskom. However, South Africa, every year is experiencing load shedding that shows that government has

a poor investment of electricity infrastructure.

Without potable water and sanitation health is at risk. The social and economic impacts have a relationship with one another. Molobela IP, et al. [21] indicated that many rural areas in South Africa do not have piped water; they use river water to drink, wash, and farming. This issue of having inadequate water infrastructure has negative impacts on people's health. Poor people live in rural areas isolated by distance, terrain, and poverty employment opportunities, markets, healthcare, and quality education. Having access to clean water is a basic need for human life, hence the South African government failed to provide adequate water infrastructure for people [22]. The National Development Plan stated that water is a strategic resource that is important for social and economic development and there is growing concern about the potential of water-related risks. After 1994 in South Africa, a major infrastructure expansion program was a priority to improve access to potable water in all aspects of the economy [23]. The main purpose was to ensure a full focus on water-resource management at all levels especially on the infrastructure that is used bring water to consumers.

Wastewater and Sewage Treatment Infrastructure

According to Mema V [24] inadequate productivity and maintenance of wastewater and sewage treatment infrastructure is a major issue in South Africa. Many studies show that this issue causes pollution of water resources which affects human health and the environment. Poor maintenance of wastewater and sewage affects most of the poor communities. This problem contributes to the development of many diseases, whereas, the community does not have proper hospitals and clinics for healthcare. Many Municipalities in South Africa are failing to deal with this issue. Most areas with poor wastewater and sewage treatment infrastructure in South Africa are affected by different diseases and growing children are exposed in unhealthy areas which affect their development and health lifestyle.

Fourie J [25] indicated that building water and wastewater infrastructure in rural and urban communities in South Africa creates job opportunities, increases community tax, and encourages investment from the private sector. This can contribute to different fields of economic growth including industrial development, increasing agricultural output, and other economic activities. South Africa is affected by poor water and wastewater infrastructure which affect economic growth. Many people are unemployed because of limited job opportunities and business opportunities. The most affected areas in South Africa are rural areas. According to Mafuya NP,

et al. [26] inadequate water supply and sanitation are seen by the government as one of the major symptoms of poverty and underdevelopment, whereas, white areas have access to quality of service, and townships and rural areas do not have formal toilet facilities. Rural areas also do not have access to electricity.

Poor Housing

According to Goebel A [27] in South Africa, there is an issue of inadequate housing, especially for the rural and low-income urban groups. This issue includes poor infrastructure, sanitation, clean water, toilet facilities, and sewerage. Population growth contributes to this issue of poor housing in South Africa. Poor housing increases many diseases, crime rates, and social exclusion in South Africa. Different factors contribute to poor housing, which includes lack of commitment and capacity to implement national and local sustainable social and economic policies, strategies, programs, plans of actions, and projects. The other factors include poverty and the low incomes of many urban families have forced them to live and work in informal settlements, poor services to residential land, and the inability of urban infrastructure projects to keep pace with growing needs. Furthermore, many areas in South Africa are dominated by the slums where there is poor hygiene, healthcare, and there is a high rate of crime. Most people who live in the slums are socially excluded.

According to Ngobeni EN [28] Government provide RDP houses for people who cannot afford to buy houses for themselves and their families, however, government play a huge role in providing shelter for poor the poor people. Thus, corruption is dominant in South Africa and government officials who are responsible for giving out houses to those who are needy, are corrupted they do not give out houses fairly. They are selling the houses for their benefit and that is not legal based on the constitutional law. However, this corruption plays a huge role in development of slums and informal settlements because people who are not able to buy houses for themselves are forced to build informal shelters.

Factors Contributing to Inadequate Infrastructure

Many factors contribute to inadequate infrastructure, which includes lack of funds, poor improvement and maintenance, poor service delivery in the community, corruption, and insufficient provision of developmental resources. After 26 years, citizens are still struggling to meet their basic needs, such as water and sanitation, proper roads, transport, technological infrastructures, and education. Moloto AN, et al. [29] indicated that poor infrastructure is encouraged by a lack of qualified officials in the government

to do the development and maintenance of infrastructure. Bowen PA, et al. [30] believes that private construction tendering is corrupted because they have self-interest when they are given to do government projects. They want to obtain more money without building proper infrastructure which will help present and future society.

Lack of funds to build adequate infrastructure contribute to poor infrastructure in South Africa. According to the Organization of Economic Co-Operation and Development, services delivery in rural areas is expensive when compared to urban areas that why rural areas are less developed and have the inadequate infrastructure. Corruption by government officials also contributes to inadequate infrastructure because they do not build adequate infrastructure for the community, they use the money to do their needs. A lack of or poor financial management practices or record-keeping has made corruption possible [31]. One can argue that the government is trying to develop some public facilities and society members contribute to inadequate infrastructure by vandalizing public facilities in the community, especially when they are striking.

The Role of Infrastructure on the Economy and Social Inclusion

Infrastructure is considered as the main influence on the increase of economy and it improves the standard of living for people. It is argued that having access to infrastructure is important for social development [32]. Public infrastructure investment is necessary to encourage economic growth, social inclusion, social development, and defeat poverty which affects the majority of people in South Africa. Adequate infrastructure results in job creation which will improve the standard of living for many people and will also contribute to economic growth. Infrastructure investment will allow the development of rural towns to make sure that all people in the country are living in good conditions. This will help the country because rural areas will contribute to economic growth and social development [33].

Presidential Infrastructure Coordinating Commission (PICC,) indicated that infrastructure contributes to economic development, allows mineral extraction and beneficiation, create job opportunities, promotes economic opportunities, and socio-economic needs. Infrastructure development eliminates poverty for the citizens of the country. Development of proper houses for people and improve the standard of living for many people. The development of infrastructure improves the supply side of the economy by reducing costs and allowing access to market opportunities. Infrastructure plays a huge role in economic growth, through both supply and demand channels. Adequate infrastructure attracts foreign investments which contribute to economic

growth [34].

According to Canning D, et al. [35] infrastructure investments create job opportunities and improve the standard of living for many people. Employment can be created during the construction and maintenance of infrastructure by using labour-based methods. It is important to use local resources to improve the local economy. The transportation and other infrastructure sectors are very important for the market in South Africa. Adequate infrastructure plays a huge role in making the lives of people to be easy and healthy. It is significant for South Africa to have a good infrastructure to advocate social inclusion and faster economic growth. Doh JP, et al. [36] argued that corruption and poor investments affect the development in South Africa which increases poverty and poor economic growth.

Ways through Which Adequate Infrastructure Can Foster Social Inclusion and Foster Economic Growth

Adequate infrastructure plays an important role in fostering social inclusion and a faster economy in the country; therefore, it is necessary for the government to invest in infrastructure to boost economic growth and maintain social inclusion. Infrastructure development is associated with greater capital investment, effective economic organization, proper planning, urbanization, and the application of science to production. Infrastructure investment contributes to rapid economic growth. Infrastructure is more essential to rural areas to improve water, better electricity, better housing, and lower costs of transportation. Infrastructure can strengthen economic activity which can change people's lives. The relationship between an economy and its economic infrastructure is analogous to that between a building and its foundation. Economic infrastructure support different kinds of economic activity [13].

Furthermore, South Africa should expand public and private investment in labour-intensive economic sectors to improve society. However, for society to improve there is a need for transport infrastructure, rural economy, quality education, healthcare sectors, sustainable water, and energy. When society prioritizes these infrastructures that will result in job creation, market opportunities, proper agriculture, and economic development. Society member should improve their skill development for business opportunities.

Methodological Approach

Methodology refers to a system of methods used in a particular study. In this study to answer research questions, a qualitative research approach was used for this study.

According to Hignett S, et al. [37] qualitative research refers to research that uses non-numerical data to collect, analyze, and interpret data that is collected. Qualitative research focuses on people's experiences, behaviors, and opinions. Information collected through this research method is collected through academic articles, academic journals, books, and previous researches. In this research project, the aim is to fully understand and explore the inadequate infrastructure and its impacts on social inclusion and faster economic growth in South Africa. The qualitative method is suitable for this research project and the use of the qualitative method was useful, as it allows the researcher to collect non-numerical data for this study.

This research project used a desktop to collect information; desktop research is suitable in this study as it is part of qualitative research methodology. According to Johnson ML, et al. [38] desktop research refers to the process of researching using published secondary data. Secondary data consists of the use of previous information or data by other academic intellectuals which may apply to the study that the researcher seeks to gather information or data. Secondary data allows the researcher to gather information through academic articles, academic journals, books, and previous researches related to the study. This study attempts to explore inadequate infrastructure and its impacts on social inclusion and faster economic growth in South Africa. The use of academic articles, academic journals, books, and previous researches was useful to answer the questions that have been established for this study.

This research project used different information sources, including academic articles, academic journals, books, and previous researches to collect relevant information. Stemler SE [39] indicated that qualitative content analysis is defined as "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying patterns". The content analysis focus on different material such as documents and oral communication. This method was useful especially in identifying certain patterns in society. It also helps to identify inadequate infrastructure and its impacts on social inclusion and faster economic growth in South Africa.

The Impact of Infrastructure on Social Inclusion and Foster Economic Growth in South Africa

The qualitative method allowed the researchers to use desktop research to collect information based on inadequate infrastructure and its impacts on social inclusion and faster economic growth in South Africa. However, chapter four will focus on exploring and presenting the findings that were

gathered during data collection. It will also provide answers to the research questions.

Infrastructure Development

According to Kularatne C [40] infrastructure refers to the basic physical and organizational structures and facilities required for the operation of a society. Infrastructure development is regarded as essential in developed and developing countries and establishes a major thrust in the public policy framework. Infrastructure development plays an essential role in economic growth and alleviating poverty. The energy sector or electricity infrastructure plays a huge role in most human activities and helps to improve the standard of living. The energy sector also contributes to the functioning of industries that create job opportunities for people. Water and sanitation sector, water is a basic need for humans, therefore, everyone should have access to clean and healthy water. The adequate infrastructure allows people to have access to safe and clean water through a pipe system. The water and sanitation sector play a role in economic growth.

According to Fedderke JW, et al. [9] transportation is a key major to economic development. The transport sector plays a role to transport goods and services and it's also helping people to access work, recreational activities, and schools. Adequate transportation is necessary for economic growth. Social sectors such as schools, housing, and health facilities are essential for economic growth and social inclusion in society. This results in quality education for children, creates job opportunities, alleviates poverty, access to quality healthcare, and promotes economic growth. Developed countries with a stable economy and social inclusion have proper infrastructure. Haj MA [41] indicated that modernization theory argued that poor countries should learn from developed countries to develop their infrastructure to improve their economy. Developed countries' governments prioritize investment in infrastructure to encourage economic growth and social inclusion. Adequate infrastructure also attracts foreign investment which plays important role in the development of the economy. The tourism industry functions very well and effectively when there is adequate infrastructure in the country.

Inadequate Infrastructure

In South Africa, there is an issue of inadequate infrastructure which has negative impacts on social inclusion and faster economic growth. According to Rogerson CM [42] inadequate infrastructure discourages social and economic development in South Africa. Rogerson CM [42] further

argued that inadequate infrastructure is affecting economic development because there are limited opportunities for people to find jobs and start businesses. Poor roads and railways affect the development of businesses in South Africa, and they also disturb the transportation of goods and services. Businesses play a significant role in modern society; therefore, the development of adequate infrastructure is necessary. Poor infrastructure prevents social inclusion such as equal, and effective education and healthcare, access to the number of public resources and it also prevents equal opportunities. Rural areas are the most areas that are affected by poor infrastructure.

Poor facilities of education, healthcare, and business sectors play a huge role in affecting the development of the economy. According to Leibbrandt M, et al. [43] children do not have access to proper education which affect the future of South Africa because many children do not finish school which results in many people who are not educated and this also result in increasing of crime rates in South Africa. Crime rates affect economic development. People do not have access to healthcare facilities which results in social exclusion and many people suffer from different diseases. This contributes to inequality, inadequate infrastructure is more dominant in rural areas, and therefore, those who live in urban areas are unequal to those who live in rural areas. Inadequate infrastructure results in poor governance, poor services delivery, poor investment, and poor planning.

Stuckler D, et al. [44] indicated that the apartheid system affected the development of South Africa, particularly in rural areas and townships where the majority of people lived. The apartheid system denied black people to have equal education and healthcare facilities with whites' people which contributed to inequality in the post-apartheid. Black people were located in areas with no proper houses, roads, electricity, clean and safe water which resulted in poverty for people. Furthermore, in post-apartheid known as democracy corruption by the government also contribute to poor infrastructure because government officials who are in control in a country are corrupted and they steal the money which supposed to develop the infrastructure. Corruption affects the development of infrastructure. The democratic government does not have proper investment and plan for infrastructure development which results in poor infrastructure in South Africa. The democratic government failed to keep the promise of developing the country and uplift poor people.

According to Buhr W [11] Infrastructure refers to physical building and facilities that is required for the function of the society, such as roads, railways, buildings, schools, power, and water supplies. In his research focus

on how poor infrastructure affects social and economic development. Inadequate infrastructure refers to poor facilities that contribute to social development and economic growth. Several factors contribute to poor infrastructure including, insufficient funds, poor development resources, and poor maintenance. In the study conducted by Srinivasu B, et al. [45] they investigated participants that understand the inadequate infrastructure and its impacts on social inclusion and faster economic growth. Inadequate infrastructure can be a significant constraint to growth and productivity. Infrastructure raises agricultural productivity which in turn induces growth, bringing higher agricultural wages, and improved opportunities for non-farm labour. Agriculture play role in improving the lives of people, it reduces prices, creates jobs, and benefits both urban and rural areas. Water, electricity, and transportation play role in the sustainability of agriculture. The lack of these infrastructures in South Africa contributes to poor economic growth and social exclusion for many people, particularly those who are poor.

Another study was conducted in Eastern Cape school by Skelton A [15]. According to teachers who were participants in the study. Poor infrastructure in the school affects the progress of teaching and learning because some classes are not in the good condition to study on, some classrooms do not have roof and windows which makes it difficult to teach in these classrooms because when it raining the rain enter in the classrooms, therefore, teaching and learning is disturbed. According to students who were also participants in the study, "It is difficult to learn in this kind of situation because classes, laboratories, toilets, and staffrooms are not in a good condition". When it raining, we are forced not to attend school because the rainfall disturbs the learning process. This also affects the academic performance of many students. The other issue that is faced by public South African schools is overcrowded classes because of shortage of classes, this issue is affecting learning because learners cannot focus and teachers are disturbed due to overcrowding.

According to Aiyetan AO, et al. [46] research findings inadequate infrastructure contributes to a great threat to human survival in South Africa. However, the research was established to find strategies to improve infrastructure service delivery. Poor supply of electricity, bad roads, shortage of pipes for water, unreliable healthcare services, and poor educational institutions affect many lives of people. According to Mbonyane B, et al. [47] township business owners' responses, it is difficult to run business in underdeveloped areas because people get poor services from businesses due to poor infrastructures such as electricity and water supply. This inadequate infrastructure affects the operation of businesses and it is difficult for businesses to grow rapidly which is unfriendly to the economy.

In the study conducted by Mbonyane B, et al. [47], in public hospitals patients and staff confirmed that public healthcare facilities have many problems such as long waiting times, poor quality healthcare delivery, old and poorly maintained infrastructure, and poor diseases control and prevention. "Most facilities have a problem such as poor waste management, lack of hygiene and poor maintenance of grounds and equipment". Poor infrastructure leads to poor quality of service, there are many problems faced by patients and staff due to poor infrastructure. These problems include lack of privacy, lack of proper working space, and lack of waste disposal management. They further stated that health infrastructure is not properly maintained.

In the study conducted by Grut L, et al. [48] inadequate infrastructure prevents members of the society to improve their standard of living because no job is created, it is difficult to start a business, and they do not have access to quality education and healthcare. Most people that are affected are black people because most of them are living in rural areas where there is a high level of poor infrastructure. Lack of job opportunities contributes to criminal behavior; most people are engaged or are imposed to criminal activities because they need money for living. Most areas with poor infrastructure are dominated by criminals and that affects many people because there is a high rate of robberies, killings, and housebreakings. Inadequate infrastructure also influences the way society behaves. It is also difficult to report the crime because police stations are not in a good condition and that contributes to the spreading of crime.

Another study that was conducted by Govender T, et al. [49], investigated the impacts of failing sanitation, informal settlements, and faecal pollution in runoff water on the health, particularly the incidence of diarrheal disease of residents of low-cost housing settlements in Cape Town, South Africa. They conducted structured interviews in participants' homes. They found that living conditions in the low-cost housing settlement posed a considerable risk to the health of the inhabitants [50-53]. Many houses were not in good conditions for people to live in. Sanitation status was very poor. Participants also indicated that disposal of household waste was also problematic, therefore, service delivery from the government is poor [54-57].

Conclusion

This study has successfully provided a discussion on the findings of the study in the form of content analysis. The findings were taken from the literature review and the researcher has also included different studies that were conducted by other scholars about this study. The finding was established to analyses gaps and challenges.

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