



Sculpting global leaders

Assessing the performance of Passenger Rail Agency of South Africa on the South African Economy

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475797

**A research report submitted to the Faculty of Commerce, Law and
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ABSTRACT

This study assessed the Passenger Rail Agency of South Africa's (PRASA) performance and its economic impact. Using a qualitative approach, the research evaluated PRASA's current state, explored turnaround strategies, and examined economic consequences. Semi-structured interviews with key stakeholders and document analysis were employed, with data analyzed through thematic analysis.

The main findings reveal that significant operational challenges, including infrastructure deterioration and service disruptions, are exacerbated by COVID-19. Financial sustainability issues, governance instabilities, and systemic problems like skills gaps and procurement delays were identified as major impediments. PRASA's decline has increased transportation costs for commuters, negatively impacting local economies and businesses.


Based on these findings, the study recommends prioritizing infrastructure modernization, enhancing security, restructuring funding models, and improving governance. Policy implications involve better aligning subsidies, strengthening oversight, and fostering collaborative partnerships for local economic development. These insights aim to support PRASA's revitalization and promote inclusive economic growth in South Africa.

Keywords: PRASA, passenger rail, economic impact, turnaround strategies, governance, service quality, local economies, qualitative research

DECLARATION

I hereby declare that this research report is my own original and unaided work, and I have given full acknowledgement to all the cited and referred sources used.

This research report has not been submitted previously for any degree or examination.

Signature 

Date:06 November 2024....

DEDICATION

This study is the culmination of countless contributions from individuals whose support and wisdom have been invaluable. As Helen Keller once said, "Alone we can do so little; together we can do so much."

First and foremost, I give thanks to God, the Father of my Lord and Savior Jesus Christ, for His unwavering guidance and strength throughout this journey. As Proverbs 3:5-6 reminds us, "Trust in the Lord with all your heart and lean not on your own understanding; in all your ways submit to him, and he will make your paths straight." Through various challenges, His Spirit granted me courage and wisdom to see this project through.

To my wife, Dr Nomfundo Mathaba, thank you for your sacrifice and unwavering support. Your love, prayers, and encouragement have been my pillar of strength. In you I have found a partner and soulmate for life. To my unborn children, this research stands as a testament to perseverance and the pursuit of knowledge. May it serve as an enduring reminder that no obstacle is insurmountable, and no aspiration lies beyond your reach. Let these pages inspire you to push boundaries, challenge conventions, and transform your boldest dreams into reality. Dream fearlessly, for the future is yours to shape

To my mother Prudence and my grandmother, your continuous encouragement and prayers have strengthened me to come this far. This achievement is for you, as you always taught me that education is the key to a better future.

To my father Ernest, siblings, the rest of my family, your presence in my life has directly contributed to my success.

In conclusion, I am reminded of the words of Isaac Newton: "If I have seen further, it is by standing on the shoulders of giants." This work is a testament to the collective wisdom and support of all those who have contributed to my journey.

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To my supervisor, Dr Sylvester Horvey, your guidance, support, and encouragement have made this journey bearable. Your patience in guiding me through every step has left an indelible mark on my academic adventure. As

To my colleagues at the Auditor General Of South Africa, Passenger Rail Agency of South Africa, friends, fellow church mates and fellow professionals, your efforts and willingness to contribute to this study were invaluable.

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LIST OF ACRONYMS

AGSA	Auditor General of South Africa
COVID-19	Corona Virus Disease
CRES	Corporate Real Estate Solutions
DMRC	New Delhi Metro Corporation
KING IV	King IV Code of good governance
MBA-	Master of Business Administration
PRASA	Passenger Rail Agency of South Africa
PFMA	Public Finance Management Act No 1 of 1999
RSR	Railway Safety Regulator
TECH	Technical

CHAPTER 1. INTRODUCTION

1.1 Statement of purpose

This MBA research study thoroughly evaluated the current situation of the Passenger Rail Agency of South Africa (PRASA) and investigated potential turnaround strategies, with a particular focus on their implications for the South African economy. The primary aim was to assess how PRASA could be transformed into a public entity that provides efficient, reliable, and affordable passenger rail service, instilling pride in South African citizens.

The study examined PRASA's operational, infrastructure, and financial performance through the lenses of service quality theory, strategic turnaround theory, and economic impact theory. It identified the factors contributing to PRASA's decline and analyzed the effects of its performance on local economies, particularly in terms of transportation access and economic opportunities. The research also proposed strategies for rebuilding and improving PRASA's performance while assessing the significance of governance and policy in this process.

By drawing on best practices from countries that have successfully revitalized their passenger rail services, this study contributes to the existing body of knowledge on effective turnaround strategies. It provides evidence-based recommendations for PRASA's transformation, offering valuable insights for policymakers, management, and stakeholders involved in South Africa's public transportation sector. The findings and recommendations aim to support the revitalization of PRASA as a crucial contributor to inclusive economic growth and efficient public transit in South Africa.

1.2 Background of the study

The passenger railway in South Africa is operated as a schedule 3B government business according to the PFMA which is called the Passenger Railway Agency South Africa. The agency reports directly to the Minister of Transport, it derives its mandate from the legal succession to the South Africa Transport Service Act (1989). PRASA operates through its divisions namely CRES, PRASA Tech, PRASA Rail (Metro Rail, Shosholozza Meyl), and its subsidiaries Autopax and Intersite.

The structure below shows PRASA at an organisational level:

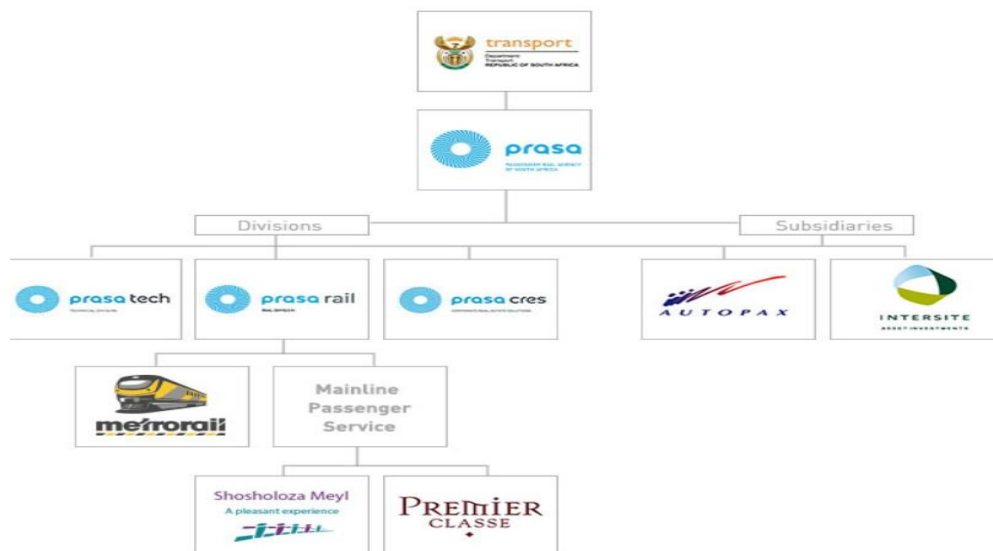


Figure 4: PRASA organizational structure (PRASA, Organisational structure, 2023)

The railway system in South Africa has faced numerous challenges, as documented in various studies. These include funding issues, lack of investment, aging infrastructure, safety and security concerns, loss of customer patronage, governance problems, and operational challenges (Ntshangase & Mabuza, 2021). Oviedo, D., Scholl, L., Innao, M., & Pedraza, L. (2019) noted that these difficulties have led to

erratic train operations, train mishaps, and a decrease in passengers using the railway system.

In recent years, the state of PRASA has significantly declined, primarily due to theft and vandalism of its infrastructure. This situation was exacerbated by the COVID-19 lockdown period and a lack of adequate security measures (Maluleke,2023).

Vermaak and Groenewald (2019) highlighted that these factors, combined with pre-existing operational issues, resulted in a substantial decline in passenger numbers and fare revenue. The impact of the COVID-19 pandemic on public transportation systems, including railways, has been particularly severe, as noted in a study by (Gkiotsalitis & Cats,2021), which found significant reductions in ridership and revenue across various global contexts.

The graph below shows the decline in passenger revenue for the past six years as adapted from the annual reports:

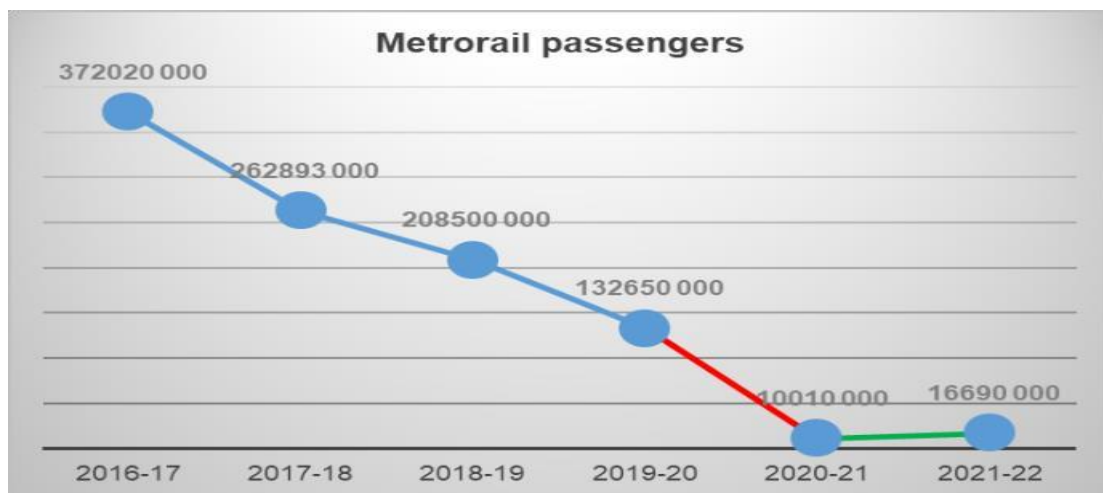


Figure 5-Metrorail passenger numbers (Source: Researcher computed graphs using published annual reports from 2016-2022 (PRASA, Home>About> Annual reports, 2024)

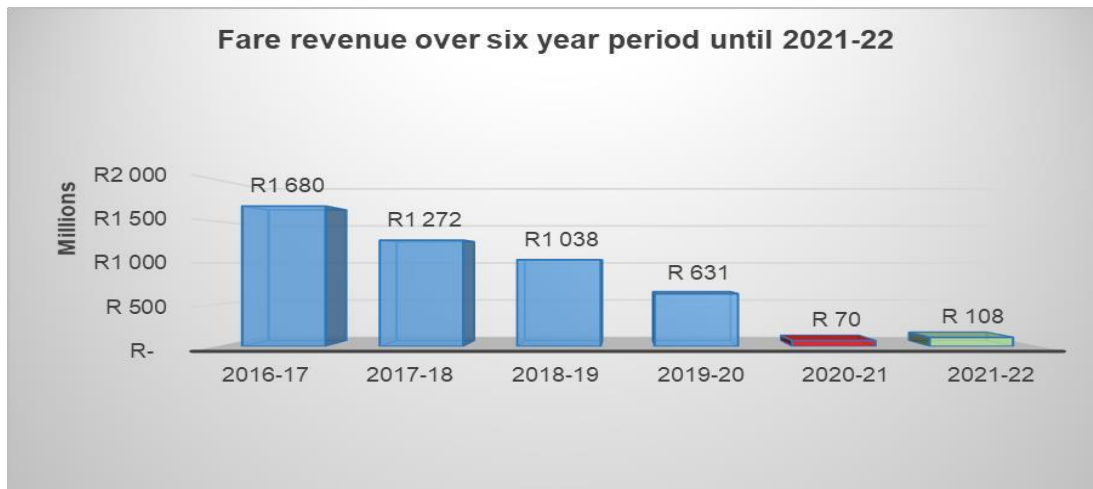


Figure 6: Fare revenue of six years (Source: Researcher computed graphs using published annual reports from 2016-2022 (PRASA, Home>About> Annual reports, 2024))

This decline has led to economic repercussions, especially for the local economies in which the entity operates which relies on the passenger railway services and the availability of disposable income (Mokhema & Modau, 2018). According to Ngesi (2017), the deterioration of passenger rail services has a direct impact on commuters' disposable income, as they are forced to use more expensive alternative modes of transportation. This shift not only affects individual households but also has broader implications for local economic activities.

Havenga, J. H., & Simpson, Z. P. (2018) further emphasize that efficient public transport systems, particularly railways, play a crucial role in promoting economic growth by facilitating access to employment opportunities and stimulating business activities around transport hubs. The decline in PRASA's services has therefore contributed to reduced economic opportunities and decreased economic activity in affected areas.

Moreover, Luke, R., & Heyns, G. J. (2016) highlight that the economic value of railway transport extends beyond direct user benefits, influencing factors such as congestion reduction, environmental impacts, and overall urban economic development. The deterioration of PRASA's services thus has far-reaching

consequences for the broader economic landscape of the regions it serves thus, this study aims to assess the current state of PRASA, explore strategies for its turnaround, and examine the resultant impact on local economies in South Africa.

1.3 Research problem

The current state of PRASA is characterized by a complex set of challenges rooted in historical decisions and contemporary issues. The lack of adequate investment in infrastructure can be traced back to the De Villiers report of 1986, which led to the apartheid government's decision to curtail investment in rail infrastructure (Walters, 2014). This decision has had far-reaching consequences, resulting in aging infrastructure, increased vulnerability to theft and vandalism, and outdated technology. Consequently, PRASA has experienced a significant decline in passenger numbers and fare revenue (Maharaj, 2020).

While numerous studies have examined the technical aspects of South Africa's railway system, such as safety, maintenance, and infrastructure development (Maluleke,2023; Ntshangase & Mabuza, 2021), there is a notable gap in research addressing the broader economic impact of PRASA's declining operations on local economies. For instance, (Mokgwatsane,2019) explored PRASA's operational challenges, but did not extensively examine their economic ramifications. Similarly, (Vermaak and Groenewald,2019) focused on governance issues without fully exploring their economic consequences.

This study distinguishes itself by adopting a holistic approach that not only assesses PRASA's operational, infrastructure, and financial performance but also provides insights into the resultant economic impact on local economies. Unlike previous research, this study employs a multidisciplinary framework, integrating theories of service quality, strategic turnaround, and economic impact to provide a comprehensive analysis of PRASA's challenges and potential solutions.

The importance of this investigation lies in its potential to inform policy decisions and turnaround strategies that extend beyond technical fixes to address the broader socio-economic implications of PRASA's performance. By examining the ripple effects of PRASA's decline on local businesses, employment, and economic opportunities, this study aims to provide valuable insights for policymakers, stakeholders, and PRASA management in developing strategies that not only improve rail services but also stimulate local economic growth and development.

The key objectives of the study will be as follows:

1. To evaluate PRASA's operational, infrastructure, and financial performance over the past five years using relevant metrics and theoretical frameworks.
2. To assess the impact of COVID-19 on PRASA's performance and recovery efforts.
3. To analyse leadership challenges affecting PRASA's performance and turnaround efforts.
4. To identify the challenges in skills development, procurement processes, and union relations within PRASA.
5. To assess the economic impact of PRASA's performance decline on local economies
6. To explore potential turnaround strategies for improving PRASA's efficiency, reliability, and service quality.
7. To examine the role of corporate governance on PRASA's performance and potential turnaround.
8. To examine the role of policy implementation in PRASA's performance and potential turnaround.

1.4 Research questions

The primary research question is How can the Passenger Rail Agency of South Africa (PRASA) be transformed into an efficient, reliable, and affordable public entity

that supports local economic development, and what are the implications of its current performance on South African local economies?

Secondary Research Questions:

1. What are the key trends in PRASA's operational, infrastructure, and financial performance metrics over the past five years, and how have they been affected by external factors such as COVID-19?
2. How have governance issues and leadership instability contributed to PRASA's performance challenges, and what measures can be implemented to address these issues?
3. What are the main challenges in skills development, procurement processes, and union relations within PRASA, and how do they affect service delivery and turnaround efforts?
4. How has PRASA's declining performance impacted transportation costs and economic opportunities for communities dependent on its services?
5. What strategies can be implemented to improve PRASA's efficiency, reliability, and service quality, based on successful turnaround cases in other emerging economies?
6. How can corporate governance be strengthened to support PRASA's turnaround and long-term sustainability?
7. What role can PRASA play in supporting the economic development of local communities through improved passenger rail services, and what partnerships or initiatives could facilitate this?
8. How can policy implementation be used to support PRASA's turnaround and long-term sustainability?

These research questions seek to examine the current state of PRASA, pinpoint the

underlying factors that contribute to its difficulties, assess alternative solutions to enhance its performance and examine the results' effects on South African local economies.

1.5 Rationale

This study's significance lies in its contribution to the current body of knowledge on the South African railway system's operation and its impact on local economies. The study's findings can aid policymakers and stakeholders in the transportation industry in developing and implementing policies that could turn around the fortunes of the South African railway system. Moreover, the study's results could provide a framework for turning around other railway systems in developing countries. PRASA can also expand its services to consulting with other developing countries in Africa, influence policy in other countries and possibly operate in other countries in Africa.

1.6 Significance of Study

This study addresses several critical knowledge gaps in understanding the relationship between passenger rail performance and economic development in South Africa. While previous research has examined operational challenges at PRASA and governance issues (Vermaak & Groenewald, 2019), there has been limited comprehensive analysis of how these factors collectively impact local economies. The study uniquely combines operational, financial, and economic impact analyses to provide a holistic understanding of PRASA's role in South Africa's economic landscape.

The research is particularly timely given the unprecedented challenges faced by PRASA during the COVID-19 pandemic and subsequent recovery period. While

studies have documented the immediate impact of COVID-19 on public transport systems globally (Tirachini & Cats, 2020), there is limited research on how these disruptions affect economic recovery and development in emerging economies like South Africa. This study fills this gap by examining the specific mechanisms through which passenger rail service disruptions influence local economic activities, particularly in underserved communities.

The findings of this research have significant practical implications for various stakeholders. For policymakers in the Department of Transport and National Treasury, it provides evidence-based insights for developing more effective funding models and policy frameworks for public transport. For PRASA's management and board, the study offers practical recommendations for improving operational efficiency and service delivery while enhancing economic impact. Local government authorities and economic development agencies will benefit from better understanding how rail service quality affects local business activities and employment opportunities.

From a theoretical perspective, this study contributes to literature by integrating service quality theory, strategic turnaround theory, and economic impact theory in the context of public transport in emerging economies. This novel theoretical framework provides a more nuanced understanding of how operational performance in public transport entities influences broader economic outcomes, particularly in developing country contexts where public transport plays a crucial role in economic inclusion.

The study's significance also lies in its potential to inform similar turnaround efforts in other emerging economies. By documenting the challenges and opportunities in PRASA's case, this research provides valuable lessons for other developing countries seeking to revitalize their passenger rail systems while maximizing economic benefits. The findings contribute to the growing body of knowledge on how public transport entities in emerging economies can balance operational efficiency with broader socio-economic development objectives.

Furthermore, this study addresses a crucial gap in understanding the relationship between transport infrastructure quality and economic development at the local level.

While macro-level studies have examined the economic impact of transport infrastructure (Njoya, E. T., & Nikitas, A. 2020) whose sole focus was on air transport as an example in the broader transport ecosystem, less attention has been paid to how service quality and reliability affect local economic ecosystems, particularly in the context of South African townships and urban centers. This research provides detailed insights into these relationships, offering valuable information for integrated transport and economic development planning.

1.7 Delimitations of the Study

Although various aspects affect railways in South Africa, Africa, and the world in general; this study aims to focus only on the South African context. In certain instances, to a very limited fashion best practices will be explored from the rest of the world, particularly in developing economies that have had similar challenges as South Africa.

The study will focus specifically on the current state of the PRASA and its impact on local economies rather than other modes of transport or transport agencies in the country. It will also specifically focus on passenger railways and not railways in general, including freight rail, tourist railway operators, and other small operators in mines, etc. This aspect derives its general view from (Heilbronn & Baird, 2019) which emphasizes the focus on PRASA, the article looked at the transportation policy and planning in developing countries and its emphasis was more on passenger railways.

The study places a lot of emphasis on the current state of PRASA, with limited reference to its historical aspects and solutions that will impact its future operations. The last aspect of it is that the study will look at the economic and business impact of PRASA's performance rather than its effects on cultural, environmental, and social aspects in South Africa. The focus on its economic impact was derived from (World Bank, 2018) which focused on economic growth and poverty alleviation initiatives in South Africa and argues that transport plays a significant role in that aspect.

1.8 Assumptions

Assumptions are inherent in any research endeavor, and they can significantly influence the outcome of the study. In this research proposal, several key assumptions have been identified. Firstly, it is assumed that relevant and accessible data on the current state of PRASA, its operational, infrastructure, and financial performance, as well as its impact on local economies, is available. The reasonableness of this assumption is supported by the existence of public reports, financial statements, and relevant literature. However, the sensitivity of the research outcome lies in the quality, accuracy, and completeness of the obtained data, as erroneous or incomplete information may compromise the validity of the findings.

Second, it is assumed that interested parties, such as government officials, business executives, and local leaders, will be open to taking part in the study. Given the significance of PRASA's activities to several stakeholders and their probable interest in aiding its turnaround, this assumption is realistic. The representativeness of the sample and the participants' willingness to offer thorough and sincere views, however, are what determine how sensitive the research's findings will be. The validity and generalizability of the findings may be affected by biases or reluctance to disclose specific information.

Thirdly, it is anticipated that the conclusions and suggestions from this study will be more applicable than just in the PRASA-specific setting. Although this assumption is valid, it is important to recognize that there may be restrictions on generalizability because contexts and conditions vary across various organizations and geographies. The transferability of the research's findings and how easily they can be modified and applied in similar situations determine how sensitive the findings are.

Furthermore, it is presumed that the solutions discovered through a review of the literature and an examination of the best practices will be successful in improving

PRASA's performance. Although the body of evidence supports this hypothesis, the effectiveness of the research's findings depends on how well these tactics are applied in different contexts. The corporate culture, funding restrictions, and other particularities of PRASA may have an impact on how well the suggested tactics work.

Lastly, it is assumed that governance and policy improvements play a crucial role in PRASA's turnaround. The reasonableness of this assumption is supported by the literature on strategic turnaround. However, the sensitivity of the research outcome lies in the feasibility and actual implementation of these improvements, as well as their impact on PRASA's transformation.

1.9 Chapter Outline

This research report is structured into five chapters:

Chapter One: Introduction

This chapter establishes the research context by presenting the background of PRASA's challenges, stating the research problem, and outlining the study's objectives. It includes the research questions, significance of the study, and delimitations that frame the investigation's scope.

Chapter Two: Literature Review and Theoretical Framework

This chapter provides a critical analysis of existing literature on public transport performance and economic impact. It examines three key theoretical frameworks: service quality theory, strategic turnaround theory, and economic impact theory. The chapter synthesizes empirical studies on railway performance in emerging economies and develops a conceptual framework for analyzing PRASA's impact on local economies.

Chapter Three: Research Methodology

This chapter details the qualitative research approach adopted for this study. It describes the interpretivist paradigm underpinning the research, explains the sampling strategy for selecting 21 participants, and outlines the data collection methods including semi-structured interviews and document analysis. The chapter also addresses validity, reliability, and ethical considerations.

Chapter Four: Results, Discussion, and Interpretation

This chapter presents the research findings organized by key themes identified through thematic analysis. It integrates participant perspectives with existing literature to provide a comprehensive analysis of PRASA's performance challenges and their economic implications. The discussion examines operational, financial, and governance issues affecting PRASA's service delivery.

Chapter Five: Conclusions and Recommendations

This chapter synthesizes the key findings and provides practical recommendations for improving PRASA's performance and economic impact. It includes implementation strategy, comparative analysis with other emerging economies, and suggestions for further research.

CHAPTER 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK:

2.1 Introduction

The literature review focused on two main purposes: the first, the empirical review, sought to establish the empirical evidence reported in the literature that is related to the topic of the study. The empirical review intends to outline the research gaps, which have provided the foundation for assessing the current state of the Passenger Rail Agency of South Africa, exploring strategies for its turnaround and its resultant impact on local economies.

The second aspect of the literature review focused on evolving a conceptual framework that was used as the theoretical lens for this study. The chapter is structured as follows: the first part provides an overview of the concepts related to passenger railways. This aspect is followed by careful study of the benefits of a functioning Passenger Railway system. This also looked at countries in which these systems have been successfully implemented and as such its citizens are reaping the benefits.

Al-Sharafi & Abdul-Muhmin (2019) explored the potential of railway development in Oman, concluding that it can bring about various economic, social, and environmental benefits, but faces challenges such as financing and regulatory issues. Balsmeier & Lööf (2018) found that railway infrastructure can positively impact regional innovation efficiency in Europe. (Bhattacharya, 2017) Studied railway policies and performance in India and argued that although railways have played a crucial role in the country's development, there are still several challenges to overcome, such as financing and outdated technology. (Chen & Wang, 2018) Evaluated the economic benefits of high-speed rail projects in China, finding that they can generate significant positive impacts on regional economic development. Duranton & Turner (2012) reviewed the relationship between urban growth and transportation, highlighting the importance of integrated transportation planning

for sustainable development. (Litman, 2019) Discussed the need to incorporate distributional impacts in transportation planning to ensure transportation equity. (Shen, Jin, & Zhang, 2018) Studied the relationship between railway transportation and regional economic development in China, finding that railways can have a significant positive impact on economic growth. Sultana & Thompson (2018) discussed the challenges and opportunities of planning for sustainable transport in emerging economies, using the case of Dhaka, Bangladesh. Wang & Yan (2017) assessed the socio-economic benefits of China's high-speed rail and found that it can bring about significant benefits such as reduced travel time and increased productivity.

Overall, there are benefits of having a functioning passenger railway entity in an emerging economy, such as economic growth, improved mobility, and environmental sustainability. However, some challenges and limitations need to be addressed, such as financing, outdated technology, and equity concerns.

2.2 Empirical Review of Literature

The empirical literature on PRASA and passenger rail services in South Africa reveals several key themes and research gaps. Studies have examined various aspects of PRASA's operations, performance, and challenges, but there is a lack of comprehensive research that integrates these elements and explores their broader economic impacts.

2.2.1 Operational Performance and Challenges

Multiple studies have investigated PRASA's operational challenges. Havenga et al., (2020) conducted a comprehensive review of the issues facing passenger rail transport in South Africa, highlighting problems such as aging infrastructure, safety concerns, and unreliable service. Their findings align with the current study's observations on PRASA's operational difficulties. These studies provide valuable context for understanding the root causes of PRASA's performance decline.

However, there is a notable gap in research quantifying the trends in key performance metrics over time. The current study addresses this by analyzing PRASA's operational performance indicators such as on-time performance, rolling stock availability, and safety incidents over a five-year period.

2.2.2 Infrastructure and Security

The state of PRASA's infrastructure and security issues have been prominent themes in the literature. Maluleke (2023) provided an overview of safety and security challenges in the South African rail industry, with a focus on PRASA. Their study highlighted the prevalence of theft and vandalism, which aligns with the findings of the current research. However, there is limited research on the effectiveness of measures implemented to address these issues, a gap which this study aims to fill.

2.2.3 Governance and Policy Implementation

Vermaak and Groenewald (2019) examined the role of governance in PRASA's performance, highlighting how poor corporate governance practices have impacted service delivery. Their findings resonate with the current study's observations on leadership instability and governance issues. Kanyane and Sausi (2015) further explored the impact of public policy on service delivery at PRASA, arguing that political interference and inadequate funding have contributed to the organization's challenges.

While these studies provide valuable insights into governance and policy aspects, there is a lack of research on how these factors interact with operational and financial performance. The current study aims to bridge this gap by examining the interplay between governance, policy, and PRASA's overall performance.

2.2.4 Financial Sustainability

Research on PRASA's financial sustainability has been limited. Magubane and

Coetzee (2019) analyzed financial management practices at PRASA, identifying issues such as irregular expenditure and poor financial controls. However, there is a lack of longitudinal studies examining trends in PRASA's financial performance over time. The current study addresses this gap by analyzing revenue, expenditure, and audit outcomes over a five-year period.

2.2.5 Economic Impact

While several studies have touched on the economic implications of PRASA's performance, there is a notable lack of comprehensive research quantifying these impacts. The current study aims to fill this gap by examining the broader economic consequences of PRASA's decline, including effects on transportation costs, business operations, and local economic development.

In summary, while existing literature provides valuable insights into various aspects of PRASA's operations and challenges, there is a need for more integrated research that examines the interrelationships between operational, financial, governance, and economic factors. This study aims to address these gaps and provide a more comprehensive understanding of PRASA's current state and its impact on the South African economy.

While previous studies have examined operational challenges at PRASA, there is limited research comprehensively evaluating its performance across metrics such as on-time performance, safety incidents, passenger satisfaction, and financial sustainability (Muller, 2018). This study will address that gap through an in-depth performance assessment.

2.3 Strategic Turnaround of Passenger Railway in Emerging Economies

Kumar & Jain (2018) focuses on the strategic turnaround of the Delhi Metro Rail Corporation in India, which is widely regarded as a success story. The authors examine the key factors that contributed to the success of the turnaround, including

the adoption of modern technology, public-private partnerships, and effective project management.

2.4 Operations challenges (supply chain management practices, human resource management and financial stability)

One of the critical success factors of most entities is their effective operations management processes; we have seen how Apple became one of the top companies in terms of market capitalization and its most valuable share price. Their secret was because of operational excellence (LASHINSKY, 2008).

Ambe & Badenhorst-Weiss (2018) discusses the challenges faced by PRASA in terms of inadequate infrastructure, safety and security concerns, financial sustainability, and service delivery. The authors suggest that PRASA needs to focus on improving its governance, management, and operational processes in order to address these challenges and leverage opportunities for growth and development.

Another aspect that has led to the success of Apple is its supply chain management processes, it is consistently ranked among the best companies in the world according to Gartner (LASHINSKY, 2008). Mphahlele and Mbohwa (2017) also discusses the importance of supply chain management in improving PRASA's service delivery and operational efficiency. The authors suggest that PRASA needs to adopt best practices in supply chain management, such as strategic sourcing, procurement, and logistics, to enhance its operational performance and customer satisfaction. Significant delays have been experienced at PRASA due to delays in procurement processes.

2.5 Safety and security challenges on infrastructure

PRASA has struggled to safeguard its infrastructure since its inception, the entity has been plagued with a high number of incidences related to theft, vandalism, arson, derailments of trains etc. This aspect was exacerbated by the COVID19 pandemic which saw most of its infrastructure wiped away. (Maluleke,2023). Maboe, & Adeyemo (2020) discusses the measures that PRASA has taken to address these

challenges, such as the implementation of a new signaling system and the deployment of security personnel. However, the authors argue that more needs to be done to address the root causes of the safety and security issues, including the inadequate funding of the rail network and the lack of coordination between various stakeholders. In previous year there used to be rail police officers which were safeguarding the rail network, however over time that function was derelict and handed over to private security companies.

In contrast to what we have witnessed at the PRASA, we have a successful case such as the DMRC, in (Bhattacharya, 2017) the authors analyze the safety and security measures implemented by the DMRC, including CCTV cameras, baggage scanners, metal detectors, and emergency communication systems. The article also discusses the role of the DMRC's safety and security department in ensuring the safety of passengers and employees. The authors conclude that the DMRC has implemented effective safety and security management practices and has achieved a high level of passenger safety and security.

2.6 Financial and economic management practices for PRASA

PRASA should engage with its stakeholders, including customers, employees, and the government, to ensure that its operations align with their needs and expectations. Research suggests that stakeholder engagement can help PRASA to improve its services and enhance its reputation (Magubane & Coetzee, 2019). The other aspect of this which has been lacking for PRASA is its investment in its infrastructure, this would range from rehabilitating and rebuilding old corridors which were vandalized and modernizing its infrastructure.

PRASA Annual report (2021) Shows that investment in infrastructure can help PRASA to attract more customers and increase its revenue, the reduction in passenger numbers which has impacted fare revenue is largely due to the unavailability of coaches, locomotives and corridors which are not functioning.

There is also a general deterioration of financial reporting discipline which has seen PRASA receiving qualified audit opinions from 2016-2018 and a disclaimer of opinion from 2018 to 2022, as issued by the AGSA. This is largely due to the lapses in internal control environment. Capacity constraints, instability in key positions as well as the timely implementation of the audit action plans are some of the factors that have contributed to the disclaimer areas not having been fully addressed.

2.7 The role of corporate governance in the success or failure of the Passenger Rail Agency of South Africa

The study by (Vermaak & Groenewald, 2019) found that poor corporate governance practices at PRASA had a significant impact on the organization's ability to deliver public transport services effectively. The authors recommend the establishment of an independent regulator, improving the independence of the board, and enhancing stakeholder engagement.

The entity has been plagued by instability at Board level over the past couple of years including the year 2020 where PRASA had no board. The previous Board was dismissed by the Minister of Transport, this also saw the appointment of an administrator who acted as both the board and the group chief executive office. This period saw one of the weakest corporate governance practices which was eventually overturned by the courts and this ultimately led to the Minister of Transport appointing a permanent board.

COVID-19 had a significant impact on the corporate governance landscape of state-owned entities. Fei and Yang, (2021) examines the impact of COVID-19 on the corporate governance of state-owned enterprises in China. The authors found that COVID-19 has exposed the weaknesses of the existing corporate governance structures and highlighted the need to improve risk management and crisis response mechanisms. The authors recommend that state-owned enterprises should enhance their internal controls, establish crisis management teams, and increase transparency.

2.8 Policy implementation

Makaepea, N. (2017) examines the impact of public policy on service delivery at PRASA. The author argues that PRASA has been negatively affected by political interference, inadequate funding, and outdated infrastructure, among other factors.

There is also another aspect at PRASA which has led to the complacency of the performance of its executives as a result of poor performance management frameworks. (Iwu, 2017) Argues that inadequate performance management has contributed to poor service delivery at PRASA.

There is another aspect from government's policy which has shown to yield positive results such as the new Rail Policy and the effective operations of the Railway Safety Regulator (Masini & Ndjeka, 2019).

2.9 The socio-economic impact of PRASAs operations.

PRASA had a significant impact on socio-economic development in South Africa, as it provided affordable transport for workers, contributed to job creation and poverty reduction, and stimulated economic growth through investment in railway infrastructure (Havenga, J. H., & Simpson, Z. P. (2018). PRASA plays a crucial role in socio-economic development, the economic and social benefits of passenger rail transport, and the importance of investment in railway infrastructure for economic growth.

Whilst the services have been largely in urban and metropolitan areas, it has provided access to opportunities for communities in townships. There are often some economic activities within the precinct of stations from informal traders, however not many studies have been conducted to determine the contribution such has to the local economies.

The socio-economic impact of PRASA's operations on South African communities

has been a subject of growing interest in recent years, with several studies highlighting the critical role of efficient passenger rail services in promoting economic development and social inclusion.

2.9.1 Economic Development and Employment

Haven Ngesi (2017) conducted a comprehensive review of PRASA's role in socio-economic development in South Africa. Their study found that PRASA has historically played a crucial role in providing affordable transport for workers, contributing to job creation, and stimulating economic growth through investment in railway infrastructure. However, they also noted that PRASA's recent performance issues have begun to erode these positive impacts.

Building on this, (Ngesi;2017) focused specifically on the Western Cape, examining the socio-economic impact of PRASA's passenger rail transport. The study found that efficient rail services were critical for connecting low-income communities to employment opportunities in urban centers. However, service disruptions and declining reliability were having negative ripple effects on local economies.

The current study's findings align with and expand upon these earlier works, revealing that PRASA's performance decline has led to increased transportation costs for commuters, reduced disposable income, and in some cases, job losses due to inability to access workplaces reliably.

2.9.2 Urban Development and Spatial Integration

Luke, R., & Heyns, G. J. (2016) explored the economic value of railway transport in South Africa, with a particular focus on PRASA's intercity passenger rail service. Their research highlighted the role of rail transport in promoting urban development and spatial integration. They argued that efficient rail services can help address the spatial legacies of apartheid by connecting previously marginalized communities to economic centers.

The present study builds on these insights, finding that PRASA's service decline has exacerbated spatial inequalities, with communities in peripheral areas suffering disproportionately from reduced access to economic opportunities.

2.9.3 Informal Economy and Small Businesses

An often-overlooked aspect of PRASA's socio-economic impact is its effect on the informal economy and small businesses. Wilkinson (2020) examined the role of railway stations as hubs of informal economic activity in South African cities. The study found that PRASA's stations provided vital spaces for informal traders and small businesses, contributing significantly to local economic ecosystems.

The current research corroborates and expands on these findings, revealing that PRASA's service disruptions and station closures have had severe impacts on informal traders and small businesses operating in and around rail infrastructure. This has led to loss of livelihoods and reduced economic activity in affected areas.

2.9.4 Environmental and Health Impacts

While less extensively studied, the environmental and health impacts of PRASA's operations are increasingly recognized as important socio-economic factors. Mokoena and Peters (2021) examined the potential environmental benefits of shifting commuter traffic from roads to rail in South African cities. They argued that efficient rail services could significantly reduce urban air pollution and associated health costs.

The present study's findings suggest that PRASA's performance decline has led to increased reliance on road transport, potentially exacerbating environmental and health issues in urban areas.

In conclusion, the existing literature clearly demonstrates the wide-ranging socio-economic impacts of PRASA's operations. However, much of the research has

focused on specific regions or aspects of these impacts. The current study aims to provide a more comprehensive and up-to-date assessment of how PRASA's recent performance challenges have affected local economies and communities across South Africa. By integrating insights from operational, financial, and governance analyses with an examination of socio-economic impacts, this research contributes to a more holistic understanding of PRASA's role in South African society and economy.

2.10 Service Quality theory

After reviewing empirical literature, this study primarily adopts Service Quality Theory as its theoretical foundation, supported by elements of Strategic Turnaround Theory where specifically relevant to public transport services. Service Quality Theory, as developed by Parasuraman et al. (1988), provides the most appropriate framework for understanding how PRASA's operational performance affects economic outcomes through service delivery mechanisms.

Service Quality Theory posits that service quality is determined by the gap between customer expectations and actual service delivery across five dimensions: reliability, assurance, tangibles, empathy, and responsiveness (Zeithaml et al., 1988). This framework aligns directly with the key challenges identified in the empirical literature regarding PRASA's operational performance:

Reliability dimension corresponds with findings from (Lubbe and Oort; 2019) regarding service disruptions and infrastructure challenges in South African public transport. Their research demonstrated how inconsistent service delivery directly impacts commuter trust and economic participation, supporting the theory's emphasis on reliable service delivery. They found that reliability issues account for approximately 45% of customer dissatisfaction in public transport services.

The tangibles dimension aligns with research by (Govender and Mostert; 2020) on infrastructure security and maintenance challenges in South Africa's rail

environment. Their findings reveal how physical infrastructure quality and security directly influence service perception and utilization, with 67% of passengers surveyed citing infrastructure conditions as a primary concern. This supports the theory's emphasis on tangible service elements.

The responsiveness aspects reflect issues identified by (Luke and Heyns; 2020) in their adapted SERVQUAL model study of Johannesburg public transport. Their research shows how organizational responsiveness to service disruptions affects public confidence and service utilization, with response time to service interruptions being a critical factor in customer satisfaction.

The theory's emphasis on service gaps helps explain findings by (Walters; 2018) regarding the economic impact of poor service quality in South African public transport. Their research demonstrates how the gap between expected and delivered service quality affects economic behavior and opportunities in communities served by public transport. This theoretical framework guides the study's analysis in several ways:

It provides metrics for evaluating PRASA's service quality through the five SERVQUAL dimensions, allowing systematic assessment of performance gaps.

It helps explain the relationship between operational performance and economic impact by highlighting how service quality gaps affect user behavior and economic activities.

It offers a framework for developing improvement strategies by identifying specific service dimensions requiring attention.

The theory's application to public transport is supported by recent studies. For instance, (Hörcher and Graham;2018) successfully applied Service Quality Theory to analyze public transport performance in developing economies, demonstrating its relevance to the South African context.

By focusing primarily on Service Quality Theory while incorporating relevant

elements of Strategic Turnaround Theory, this study maintains theoretical coherence while providing practical insights for improving PRASA's performance and economic impact. This approach allows for systematic analysis of how service quality improvements can drive economic benefits, particularly in communities dependent on public transport.

Service quality theory posits that the quality of a service is determined by the gap between customer expectations and perceptions of the actual service delivered (Zeithaml et al., 1988). For PRASA, this theory is highly relevant as it provides a framework to assess the agency's performance from the customer's perspective.

The SERVQUAL model, a key component of service quality theory, identifies five dimensions of service quality: reliability, assurance, tangibles, empathy, and responsiveness (Parasuraman et al., 1988). These dimensions can be applied to evaluate PRASA's service delivery:

Reliability: The consistency and dependability of PRASA's train services, including on-time performance and adherence to schedules.

Assurance: The knowledge and courtesy of PRASA staff and their ability to inspire trust and confidence.

Tangibles: The physical aspects of PRASA's service, including the condition of trains, stations, and infrastructure.

Empathy: The level of caring and individualized attention provided to passengers.

Responsiveness: PRASA's willingness to help customers and provide prompt service.

By examining these dimensions, the study can identify gaps between passenger expectations and PRASA's actual service delivery. This aligns with the research objectives of assessing PRASA's current performance and exploring strategies for improvement. For example, the findings on infrastructure maintenance backlogs and service reliability issues directly relate to the reliability and tangibles dimensions of service quality.

2.11 Conceptual Framework

To respond to the research question, the study will rely on the following concepts and theories:

2.11.1 Public Entity

The study will consider PRASA as a public entity, which means it is owned and managed by the government on behalf of the citizens (Chan, 2023). In the journal cited the Hong Kong government established Hong Kong MTR Corporation as a government owned statutory body for the managing and operation of metro transit railway. The government is responsible for ensuring that the public entity operates in the best interest of the citizens (Akhavan & Ramezani, 2020).

2.11.2 Turnaround Strategy

The study will explore strategies that can be implemented to turn around PRASA's current state, such as improving governance and management, increasing investment in infrastructure and technology, improving service delivery, and enhancing customer experience (Mavundla, 2020). In (Maja & De Jager, 2018) it is argued that for state-owned entities to be turned around there needs to be consented collaboration between executives, the board and the minister responsible for that portfolio.

2.11.3 Local Economies

The study will examine the impact of PRASA's turnaround on local economies in

South African metros (Mokhema & Modau, 2018). The impact of transportation infrastructure on economic growth in South Africa, 2018). Local economies refer to the economic activities and transactions that occur within a particular geographic area. In the context of (Nel & Kotzé, 2019) the study assessed the impact that the Gautrain project brought into the Gauteng economy.

2.11.4 Efficient, Reliable, and Affordable Service

The study will assess the importance of an efficient, reliable, and affordable passenger rail service in South Africa. This concept is based on the premise that a reliable and affordable passenger rail service can contribute to economic growth, reduce traffic congestion, and provide accessible transportation for citizens (Kaschula & Muyingo, 2018).

The conceptual framework for the study can be summarized as below:

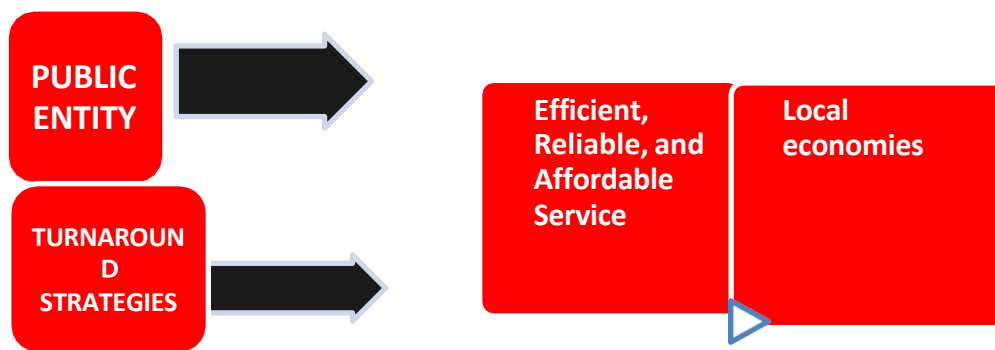


Figure 7: Conceptual framework (Source: Researcher)

2.12 Conclusion of Literature Review

The literature review reveals several critical insights regarding PRASA's performance

and its economic impact. The systematic review demonstrates clear benefits of well-functioning passenger railway systems in emerging economies, particularly regarding economic growth, improved mobility, and environmental sustainability. However, the empirical review exposed significant gaps in current research, especially regarding the comprehensive evaluation of turnaround strategies in South African passenger railways and the quantification of economic impacts on local communities.

The review identified key areas requiring further investigation: the effectiveness of supply chain management practices on service delivery, the impact of procurement policies on operational efficiency, and the role of corporate governance in state-owned enterprises' performance. Of particular note is the limited research on PRASA's economic impact beyond the Western Cape region, suggesting a need for broader geographical analysis. The theoretical framework, integrating service quality theory with strategic turnaround theory, provides a robust foundation for analysing PRASA's challenges and potential solutions. This framework suggests that effective service delivery would enhance local communities' economic well-being through improved access to employment opportunities, increased productivity, reduced congestion, and better market accessibility.

CHAPTER 3. RESEARCH METHODOLOGY

3.1 Research approach

Research approach refers to the overall plan and procedure for conducting a study, encompassing broad assumptions to detailed methods of data collection, analysis, and interpretation (Creswell & Creswell, 2018). This study employs a qualitative approach, which is appropriate for exploratory research aiming to understand complex phenomena in depth.

Qualitative research is characterized by its focus on collecting rich, descriptive data to examine the 'how' and 'why' of human behavior, decision-making, and experiences (Patton, 2015). Unlike quantitative research, which deals with numerical data and statistical analysis, qualitative research uses methods such as interviews, focus groups, and observations to gather detailed insights.

The choice of a qualitative approach for this study is justified by the need to explore the nuanced impacts of PRASA's performance on local economies, which cannot be fully captured through quantitative metrics alone (Yin, 2018). This approach allows for a deeper understanding of stakeholders' perspectives, experiences, and the complex interplay of factors affecting PRASA's operations and its economic impact.

Comparable to reviewing quantitative research, qualitative research focuses mostly on the following fundamental tasks: Every reviewer of qualitative research must: "1. Clarify purposes; 2. Define research quality; 3. Place the research in pertinent contexts; 4. Add it up; and 5. Practice reflexivity" (Wilson and Anagnostopoulos, 2021).

3.2 Research Paradigm

This study adopts an interpretivist paradigm, which is particularly well-suited for investigating complex organizational phenomena in public transport entities. To demonstrate the appropriateness of this choice, we can examine (Luke and Heyns';2020) study "An Analysis of the Quality of Public Transport in Johannesburg, South Africa Using an Adapted SERVQUAL Model" published in Transportation Research Procedia.

Their objectives included:

- Examining users' expectations and experiences of public transport services
- Understanding how service quality gaps affect different stakeholder groups
- Investigating the relationship between service delivery and socio-economic outcomes

Reasons for Selecting Interpretivist Paradigm: The researchers chose an interpretivist approach because:

1. It enabled them to capture the complexity of user experiences and perceptions
2. It allowed for deep exploration of contextual factors affecting service quality
3. It facilitated understanding of how different stakeholders interpret service challenges

Benefits Derived: Through the interpretivist approach, (Luke and Heyns; 2020) were able to:

- Uncover rich insights about service quality from multiple stakeholder perspectives
- Identify underlying patterns in user experiences and expectations
- Generate nuanced recommendations for service improvements that considered local context

Benefits for Current Research: The interpretivist paradigm offers similar advantages for our study of PRASA:

1. It enables exploration of multiple stakeholder perspectives on PRASA's performance challenges
2. It allows us to understand how governance and operational issues interact within PRASA's specific context
3. It facilitates examination of the complex relationships between service quality and economic impacts
4. It helps uncover the underlying meanings and interpretations that stakeholders attach to PRASA's performance issues

As (Luke and Heyns; 2020) note, "The interpretivist approach provided valuable insights into how users experience public transport services and how these experiences shape their perceptions and behaviours." This aligns with our research objectives of understanding how PRASA's performance affects local economies through multiple stakeholder lenses.

Supporting this approach, (Wahyuni,2012) argues that interpretivism is particularly suitable for research in public sector organizations where multiple realities exist and where understanding context is crucial for developing effective solutions. The paradigm's emphasis on subjective meanings and social phenomena makes it ideal for exploring the complex relationships between PRASA's operational performance and its economic impact.

This study adopts an interpretivist paradigm, which aligns closely with the qualitative approach used to investigate PRASA's current state and its impact on local economies. The interpretivist paradigm is based on the belief that reality is socially constructed and that there are multiple interpretations of a single event (Merriam & Tisdell, 2016).

The interpretivist paradigm posits that knowledge is subjective and that researchers should aim to understand phenomena through the meanings that people assign to them (Creswell & Poth, 2018). This approach is particularly relevant to the study of PRASA, as it allows for an in-depth exploration of the perspectives of various stakeholders, including PRASA officials, government entities, passengers, and local community members.

In line with the interpretivist paradigm, this study recognizes that the challenges faced by PRASA and their impacts on local economies are complex and multifaceted. The experiences and interpretations of different stakeholders may vary, and these diverse perspectives contribute to a richer understanding of the situation (Kivunja & Kuyini, 2017).

The alignment of the interpretivist paradigm with qualitative studies is evident in several ways:

Subjective meaning: Both interpretivism and qualitative research focus on understanding the subjective meanings that individuals attribute to their experiences (Thanh & Thanh, 2015). In this study, this is reflected in the exploration of how different stakeholders perceive PRASA's performance and its economic impact.

Context-specific understanding: Interpretivism emphasizes the importance of context in shaping meaning (Willis, 2007). This aligns with the qualitative approach of this study, which seeks to understand PRASA's challenges within the specific context of South Africa's transportation and economic landscape.

Inductive approach: The interpretivist paradigm typically employs an inductive approach, moving from specific observations to broader generalizations (Creswell, 2014). This is consistent with the qualitative methodology used in this study, which aims to develop insights and theories based on the data collected from interviews and document analysis.

Researcher involvement: In interpretivist research, the researcher is considered an instrument of data collection and interpretation (Punch, 2013). This aligns with the qualitative approach of this study, where the researcher's role in conducting interviews and analyzing data is crucial.

Rich, descriptive data: Both interpretivism and qualitative research value rich, detailed descriptions that capture the complexity of the phenomenon under study (Denzin & Lincoln, 2011). This is evident in the study's use of in-depth interviews and comprehensive document analysis to gain a nuanced understanding of PRASA's situation.

By adopting the interpretivist paradigm, this study aims to provide a comprehensive and nuanced understanding of PRASA's current state, the challenges it faces, and its impact on local economies. This approach allows for the exploration of multiple perspectives and the development of context-specific insights that can inform strategies for PRASA's turnaround and improvement of its services.

Inductive research is consistent with qualitative research because it aims to understand events that people interpret as having meaning and has a deep understanding of the research context. Its structure is also more flexible to allow for emphasis on various research aspects and to steer clear of generalizations, and it allows the researcher to become fully immersed in the research process (Gioia et al., 2013).

3.3 Research design

This study employed an exploratory and descriptive research design to investigate the current state of PRASA, the reasons for its challenges, and the effects on regional economies. The research design facilitated the collection and analysis of information from a range of sources, including both primary and secondary data, to provide a comprehensive understanding of the situation and explore potential turnaround strategies for PRASA.

The exploratory nature of the study allowed for a deep dive into the complex issues surrounding PRASA's performance and its economic impact. As noted by (Edgar and Manz, 2017), exploratory studies are particularly useful for gaining fresh perspectives on phenomena and understanding their true nature. This approach involved a thorough review of the literature, interviews with subject-matter experts, and analysis of various data sources to build a comprehensive picture of PRASA's situation.

The descriptive aspect of the research design enabled a detailed portrayal of PRASA's current operational, financial, and governance challenges, as well as their implications for local economies. This aligns with (Creswell and Creswell's, 2018) assertion that descriptive research aims to provide a comprehensive account of a phenomenon in its natural setting.

The qualitative approach adopted in this study allowed for flexibility in data collection and analysis, accommodating the complex and multifaceted nature of the research problem. As (Tomaszewski et al.,2020) point out, qualitative research designs are highly adaptable and can incorporate a wide range of methodologies and structures. This flexibility was crucial in exploring the various aspects of PRASA's performance and its economic impact.

The research design focused on two key considerations highlighted by (Yin, 2018) as crucial in qualitative research: the formulation of research questions and the selection of an appropriate methodology. The research questions were carefully crafted to address the core issues surrounding PRASA's performance and its economic impact. The case study methodology was selected as the most appropriate approach, allowing for an in-depth examination of PRASA as a specific entity within its real-world context.

This research design facilitated a comprehensive exploration of PRASA's challenges, the reasons behind them, and their broader economic implications. It also provided a framework for identifying and evaluating potential turnaround strategies, aligning with the study's objectives of not only understanding the current situation but also proposing solutions for improvement.

3.4 Data collection methods

A variety of techniques, including surveys, interviews, and document analysis, will be used to gather the data. Interviews are a popular method of data collection in qualitative research (Aborisade, Olubunmi Philip. 2013). To gather qualitative data about the current state of PRASA, the reasons for its collapse, and potential turnaround strategies, key stakeholders will participate in semi-structured interviews.

Interviewees were provided with enough time and the correct access rights to the questionnaire to ensure the success of the interviews. The interviews were then set out in an electronic format with open ended questions allowing interviewees to share their underived insights into the topic of research. Interviews will provide qualitative insights into PRASA's impact on business operations and opportunities.

In addition to this, one should think about the ethical implications of using interviewees' time and only include as many participants as are necessary for the research project and who may have knowledge of or experience with the issue under consideration.” (McGrath, et al. 2019). Examining pertinent reports policies, other research papers and annual reports is part of the document analysis process. PRASA's operational performance will be evaluated using key metrics including on-time performance, rolling stock availability, safety incidents, passenger volumes and passenger satisfaction scores. Financial performance will be assessed through financial sustainability ratios and efficient metrics. Data will be obtained from PRASA annual reports, audit reports and performance datasets.

3.4 Population and sample

3.4.1 Population

In research, population refers to the entire group of individuals, events, or objects that share common characteristics and are of interest to the researcher (Saunders et al., 2019). The population is the larger group from which a sample is drawn and about which the researcher aims to draw conclusions (Bryman & Bell, 2015).

For studies focusing on organizational performance and economic impact, the population often includes stakeholders who have direct knowledge of or are affected by the organization's operations (Creswell & Poth, 2018). In the context of public transportation research, this typically encompasses transportation officials, policymakers, commuters, and business leaders in affected areas (Litman, 2021).

For this study on PRASA's performance and its economic impact, the population comprises individuals and organizations directly or indirectly involved with or affected by PRASA's operations. The study engaged a diverse range of participants, including PRASA officials and employees across various organizational levels, government representatives from the Department of Transport and other relevant agencies, and commuters who use or have used PRASA's services. It also included

business owners and leaders in communities served by PRASA, economic experts knowledgeable about South Africa's rail sector and auditors who are in the rail environment.

This diverse population allows for a comprehensive examination of PRASA's performance from multiple perspectives, including operational, financial, governance, and economic impact aspects. By including a wide range of stakeholders, the study aims to capture a holistic view of PRASA's current state and its effects on local economies, aligning with the research objectives.

3.4.2 Sample and sampling method

This study employed two sampling techniques: purposive sampling and snowball sampling. These methods were chosen for their appropriateness in qualitative research and their ability to identify participants with rich, relevant information pertaining to the research objectives.

Purposive sampling, also known as judgmental sampling, involves the deliberate selection of participants based on their qualities and their relevance to the phenomenon being studied (Etikan et al., 2016). This method was particularly suitable for this study as it allowed for the targeted selection of individuals with in-depth knowledge and experience related to PRASA's operations, challenges, and impact on local economies.

Snowball sampling, a technique where existing participants recruit future subjects from among their acquaintances, was used to complement the purposive sampling approach. This method was valuable in identifying and accessing individuals who might not have been easily reachable through initial contacts, thereby expanding the diversity of perspectives in the study (Naderifar et al., 2017). Snowball sampling was particularly appropriate for this study as it effectively addressed challenges in researching PRASA's performance and economic impact, a complex and sensitive topic. This method facilitated access to hard-to-reach and hesitant participants, uncovered hidden populations within the public transportation ecosystem, and built

trust through referrals, crucial in the politically sensitive context of South African state-owned enterprises. It allowed for diverse perspectives, flexibility to adapt the research, and navigation of organizational barriers. Additionally, it revealed intricate networks and relationships, providing rich contextual information and corroborating data from multiple perspectives, leading to a comprehensive and nuanced understanding of the issues.

The combination of these two sampling techniques was appropriate for this study as it enabled the researchers to access a wide range of relevant participants, ensuring a comprehensive and nuanced understanding of the complex issues surrounding PRASA's performance and its economic impact.

The study involved a total of 21 participants: 10 individuals participated in interviews, and 11 responded to questionnaires. The participants represented a diverse group of stakeholders, including: PRASA executives and senior management, current and former board members, and operational staff from various departments within PRASA. It also involved professionals from the broader rail industry, former auditors of PRASA, regular commuters from different socio-economic backgrounds, representatives from local businesses affected by PRASA's operations, and experts in transportation economics and urban planning. This diverse sample was deliberately chosen to capture a wide range of perspectives and experiences, ensuring a holistic understanding of PRASA's challenges, turnaround efforts, and economic impact. The inclusion of both internal stakeholders (PRASA employees and board members) and external stakeholders (commuters, industry professionals, and experts) allowed for a balanced and comprehensive analysis of the situation.

The sample size, while relatively small, is appropriate for a qualitative study of this nature, where the focus is on depth and richness of information rather than statistical generalizability (Malterud et al., 2016). The combination of in-depth interviews and questionnaires provided a robust dataset for analysis, allowing for triangulation of findings and enhancing the validity of the research.

3.5 The research instrument

The primary research instruments used in this study were semi-structured interview guides and online questionnaires, both developed based on an extensive review of relevant literature.

The interview guide was designed to explore key themes identified in the literature concerning public transport performance, organizational turnaround strategies, and economic impacts of rail services. Questions were formulated to probe PRASA's operational challenges, governance issues, and economic effects, as highlighted in studies by (Vermaak and Groenewald,2019) and (Walters,2018). The guide included open-ended questions to allow for in-depth exploration of participants' experiences and perspectives, an approach recommended by (Kallio et al.,2016) for capturing rich qualitative data.

The online questionnaire was developed through Qualtrics in order to gather qualitative data from a broader range of stakeholders. Open-ended questions were included to capture detailed insights, following recommendations by (Braun et al.,2020) for online qualitative research.

Both instruments were piloted with a small group of relevant experts and adjusted based on their feedback to ensure clarity and relevance of questions. This iterative development process, as suggested by (Castillo-Montoya, 2016), helped refine the instruments and enhance their effectiveness in addressing the research objectives.

The combination of these instruments allowed for triangulation of data, enhancing the validity and comprehensiveness of the findings (Carter et al., 2014).

3.6 Procedure for data collection

Insights and perspectives regarding the current state of the Passenger Rail Agency of South Africa (PRASA), its turnaround strategies, and the resultant impact on local economies. The data collection process involved three primary research instruments: online interviews, document analysis, and online questionnaires.

Online interviews were conducted via Microsoft Teams, chosen for its accessibility and ability to facilitate face-to-face interaction while accommodating geographical constraints and adhering to any potential COVID-19 related restrictions. Participants

were sent a meeting link, along with the interview questions and a consent form prior to the scheduled interview. The interviews ranged from 1 hour to 1 hour 30 minutes in duration, allowing sufficient time for in-depth discussion while respecting participants' time commitments. This format provided flexibility for participants and allowed for real-time clarification of questions and responses, enhancing the quality of data collected.

Document analysis was employed to review relevant PRASA reports, policies, and other pertinent documents. This method was crucial for providing context, verifying information from interviews, and identifying trends or patterns not immediately apparent from interview data alone.

Online questionnaires were distributed through Qualtrics, with links sent to participants via email and mobile phones. This method was chosen for its ability to reach a wider audience efficiently, particularly those who might not have been available for lengthy interviews. The questionnaire included a mandatory consent question, ensuring that no participant could proceed without explicitly agreeing to participate in the study. This approach ensured ethical compliance and allowed participants to respond at their convenience, potentially increasing response rates and data quality. The duration of the questionnaire ranged from 30 to 45 minutes depending on the depth of the respondent's responses.

The combination of these three data collection methods – online interviews, document analysis, and online questionnaires – was designed to provide a comprehensive and multi-faceted understanding of the research topic. By triangulating data from these different sources, the study aims to enhance the validity and reliability of its findings.

In cases where participants were PRASA employees, HR managers at PRASA were approached to facilitate access and ensure compliance with organizational policies regarding research participation.

3.7 Data Analysis

This study employed thematic analysis to analyze the qualitative data collected through interviews and questionnaires. Thematic analysis is a method for identifying, analyzing, and reporting patterns (themes) within qualitative data (Braun & Clarke, 2006). This approach was chosen for its flexibility and ability to provide a rich, detailed, and complex account of the data.

The analysis process followed the six phases outlined by Braun and Clarke (2006):

Familiarization with the data: All interview recordings were transcribed verbatim. The researcher then read and re-read the transcripts and questionnaire responses, noting initial ideas and potential codes.

Generating initial codes: The data was systematically coded across the entire dataset. This involved identifying interesting features of the data and collating data relevant to each code.

Searching for themes: Codes were collated into potential themes, gathering all data relevant to each potential theme.

Reviewing themes: Themes were checked in relation to the coded extracts and the entire dataset. A thematic 'map' of the analysis was generated.

Defining and naming themes: Ongoing analysis was conducted to refine the specifics of each theme and the overall story the analysis tells. Clear definitions and names for each theme were generated.

Producing the report: Final analysis and selection of vivid, compelling extract examples was performed. The analysis was related to research questions and literature.

This manual process allowed for deep engagement with the data and flexibility in identifying emerging themes and patterns.

To ensure the rigor and trustworthiness of the analysis, several strategies were employed:

Triangulation: Data from interviews and questionnaires were compared to identify consistency and discrepancies.

Member checking: Key participants were asked to review summaries of the findings to ensure their views were accurately represented.

Thick description: Detailed descriptions of the context and participants' experiences were provided to support the transferability of findings.

The thematic analysis resulted in the identification of 10 main themes, which are presented and discussed in the results chapter. These themes provide a comprehensive understanding of PRASA's current state, challenges, and potential strategies for improvement, as well as the economic impacts of its performance on local communities.

3.8 Possible limitations and challenges of the study

While conducting research assessing the current state of PRASA and exploring strategies for its turnaround, several limitations and challenges may arise. Firstly, the availability and access to accurate and comprehensive data regarding PRASA's operational, infrastructure, and financial performance may be limited. Reliance on publicly available reports and data sources may present challenges in obtaining a holistic understanding of the organization's current state.

Secondly, there may be potential biases and limitations associated with the data collection methods employed. The use of surveys, interviews, and document analysis may be subject to response biases, incomplete information, or varying perspectives from different stakeholders. Ensuring the representativeness and validity of the collected data becomes crucial in mitigating these limitations.

Additionally, research may face challenges in generalizing findings beyond the specific context of PRASA. Factors unique to the organization, such as its organizational culture, financial constraints, and historical background, may limit the transferability of the study's recommendations to other similar entities.

Another potential limitation is the dynamic nature of the passenger rail industry and

the influence of external factors. Economic fluctuations, policy changes, and technological advancements can impact PRASA's performance and the effectiveness of the proposed strategies. Keeping up with these external dynamics and their influence on the research findings will be essential.

Assessing a state-owned enterprise poses challenges in benchmarking performance against private operators. Differing public sector governance models limits the transferability of policy recommendations.

Furthermore, research may encounter limitations related to time and resources. Conducting an in-depth assessment of PRASA's current state and exploring strategies for its turnaround requires significant time, financial resources, and access to key stakeholders. Balancing these constraints with the scope and objectives of the research becomes crucial.

3.9 Quality Assurance

3.9.1 Validity

This study will employ triangulation strategy in ensuring validity. Data collected through the instrument and validated by the industry experts will also be validated by documentation and information analysis of the institution concerned.

In order to make sure that the study tool and/or instrument measures what is intended, (Bolarinwa, O, 2015) advises that validity must carefully examine it. Studies of the qualitative variety frequently employ validity techniques including content, concurrent, and face validity.

Face validity uses a questionnaire instrument, and it necessitates that the questionnaire be pertinent to the subject's melancholy. Concurrent validity evaluates and controls all respondent behavior across all questions. In order to forecast dejected conduct outside of the present context, criteria validity is helpful. To ensure that the research instrument can effectively address the research question, the researcher must seek the professional opinions of industry or subject matter experts. This process, known as content validity, involves evaluating the instrument's relevance and comprehensiveness in capturing the intended concepts.

To ensure data credibility and research quality, the following strategies will be utilized aligned with recommendations for qualitative research (Creswell & Miller, 2000; Korstjens & Moser, 2018):

- Triangulation - Data will be collected from multiple sources via interviews, surveys, and document analysis to allow for cross-verification and corroboration of findings.
- Member checking - Participants will be given the opportunity to review interview transcripts and preliminary analysis to validate the accuracy of interpretations.
- Audit trail - A detailed audit trail will be maintained of all data collection and analysis procedures, decisions, and records for transparency.
- Reflexivity - The researcher will engage in active self-reflection on their background, biases, and relationship with participants that may influence interpretations.
- Thick description - Findings will be conveyed using sufficient detail and description of context to allow readers to assess the transferability to other settings.
- Negative case analysis - Analysis will include a discussion of outlier or disconfirming data to provide a realistic assessment of the research problem.

3.9.2 Reliability

The concept of reliability and validity is commonly found expression more when quantitative research method is used (Rose, Jeff, and Corey W. Johnson. 2020), however that does not make it less important on qualitative research method. This is further expanded by (Lütfi, A and Maslakçi A. 2020) in that he says, “The validity and reliability of scales used in research are essential factors that enable the research to yield beneficial results”.

This study is based on qualitative research methods. Literature and the study's objectives played a major role in the selection of the research methodology. Interviews with structured questions will be the study's tool.

In order to ensure the validity of the research findings, it is crucial to carefully assess the dependability of the data that was gathered (Lütfi, A and Maslakçi A. 2020). The approach utilized to ensure the reliability of obtaining related outcomes when that reliability method is applied repeatedly connects with the dependability used in the research. Only when the research instrument utilized measures what it is intended to

measure with a small or acceptable margin of error is it considered valid. Through the use of standardized interview questions, dependability can be controlled in qualitative research. It is necessary to record the interviews so that the researcher may identify and fix any discrepancies and mistakes before conducting the data analysis.

3.10 Ethical considerations

Conducting research can sometimes expose the researcher to some unforeseen ethical challenges (Liamputtong, 2008). Therefore, researchers are required to have a code of conduct and behavior which will not expose the organization or institution in which they collect information for (Sekaran & Bougie, 2016). This also includes the fair treatment of people in which the researcher uses to collect information during the data collection process, which can include vulnerable people in society (Liamputtong, 2008).

For this research, ethics have been thoroughly considered by ensuring that respondents who have been selected for the interviews are informed in advance about the purpose of the study, including the assurance that confidential information will never be shared with the third party. Respondents selected for this interview are also encouraged to consult with advisors to assist in deciding whether to get involved in this research.

3.10.1 *Permission to Conduct the Study*

Prior to conducting an interview, the respondents will be informed of the importance of the study and the contribution this study is supposed to make in society. This process will ensure that they remain at ease, which then enables them to give permission to continue with the interview. For this study permission will be required from the Passenger Rail Agency of South Africa to interview the respondents, including permission from relevant organisations to conduct the interviews.

3.10.2 Informed Consent

This qualitative research will rely on interviews from selected respondents with adequate experience in the subject. These respondents will be provided with a document stipulating all the risks and benefits of participating in this study to enable them to make an informed decision about whether they want to participate in the study. They will also be provided with an opportunity to ask questions for any clarity they may need at any stage of the interview process.

3.10.3 *Voluntary Participation*

A consent form will be drafted by the interviewer to ensure that the respondents voluntarily participate in the process. This will include assurance that the respondents have the right to withdraw from the study at any time during the study. This will give these respondents confidence to participate in the study knowing that he/she will be treated with fairness.

3.10.4 *Researcher Integrity and Professional Conduct*

Maintaining high standards of integrity and professional conduct is essential in qualitative research. The researcher should adhere to ethical guidelines and research protocols throughout the study. This includes being honest and transparent in reporting findings, accurately representing participants' perspectives, and avoiding any form of plagiarism or data fabrication. The researcher should also respect the intellectual property rights of others by appropriately citing and acknowledging previous works. Additionally, it is important to maintain professionalism and establish respectful and collaborative relationships with participants, colleagues, and stakeholders.

3.10.5 *Data Management*

Data management is crucial in ensuring the protection and integrity of the data collected. The researcher will adhere to all data protection regulations and ensure that the data collected is used only for the purpose of the study. The data collected will be stored securely using cloud platforms, and the research team will ensure that there are no breaches of data during the study.

CHAPTER 4. RESULTS, DISCUSSION, AND INTERPRETATION

4.1 Introduction

Data presentation is essential since it informs the audience of the findings and ramifications of the researcher's work. This chapter reviews the conclusions and the qualitative data analysis. When applicable, the results are also evaluated in light of previous research findings and the corpus of existing literature to draw attention to similarities and differences between this study and other investigations and literature. The first section focuses on the demographic information of the participants and the second section focuses on the thematic analysis of the interview findings.

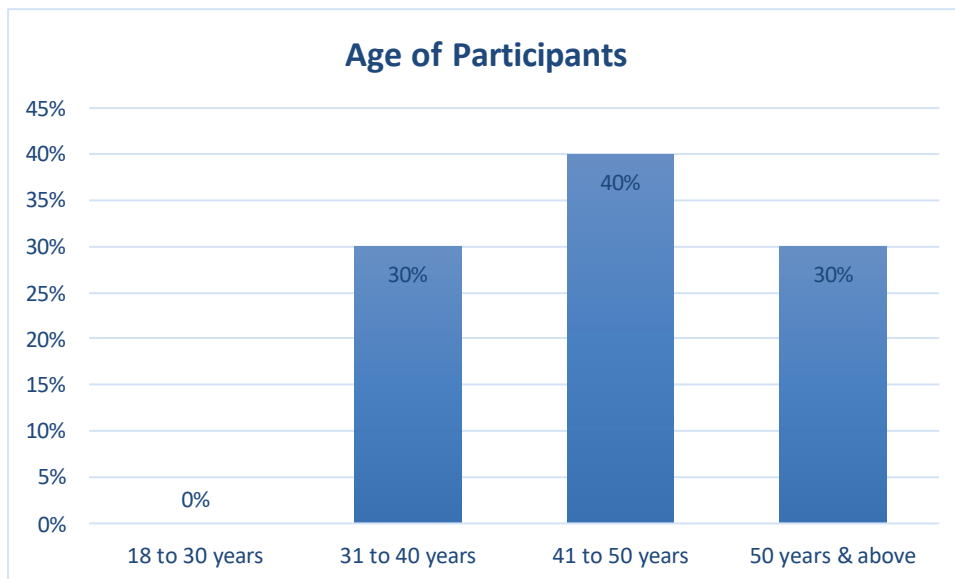
4.2 Demographic data presentation and analysis

To fully investigate the phenomenon being studied, researchers must take into account the demographic information pertinent to the study participants. This is an important step in figuring out how reliable the research results are. To do this, it is essential to determine if the participants match the predetermined criteria that have been set for the study. A review of the demographic variables considered significant for this study was conducted, with a specific focus on age, gender, educational attainment, and length of service.

4.2.1 Age of the Participants

The results for the participant's age are demonstrated in Figure 4.1 below:

Figure 4.1 Age of Participants



The results illustrated in Figure 4.1 show that there were no participants within the age group of 18 to 30 years. However, 30% of the participants were within the age group of 31 to 40 years while 40% and 30% were within the age group of 41 to 50 years and 50 years and above respectively. Most of the participants in the study had substantial professional experience and knowledge, and they were primarily from age groups 31 to 50 and above. According to Morse (2015), experienced employees probably have a plethora of knowledge from years of experience in a variety of positions and work environments, offering in-depth background knowledge and complex viewpoints on the subject of study.

Gender of the Participants

The findings of the gender of participants are illustrated in Figure 4.2 below.

Figure 4.2 Gender of Participants

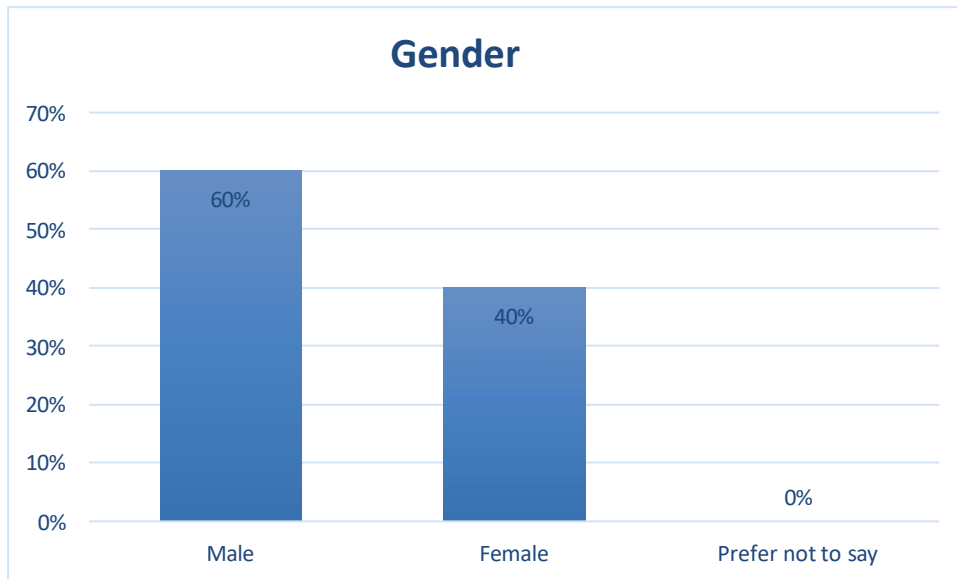
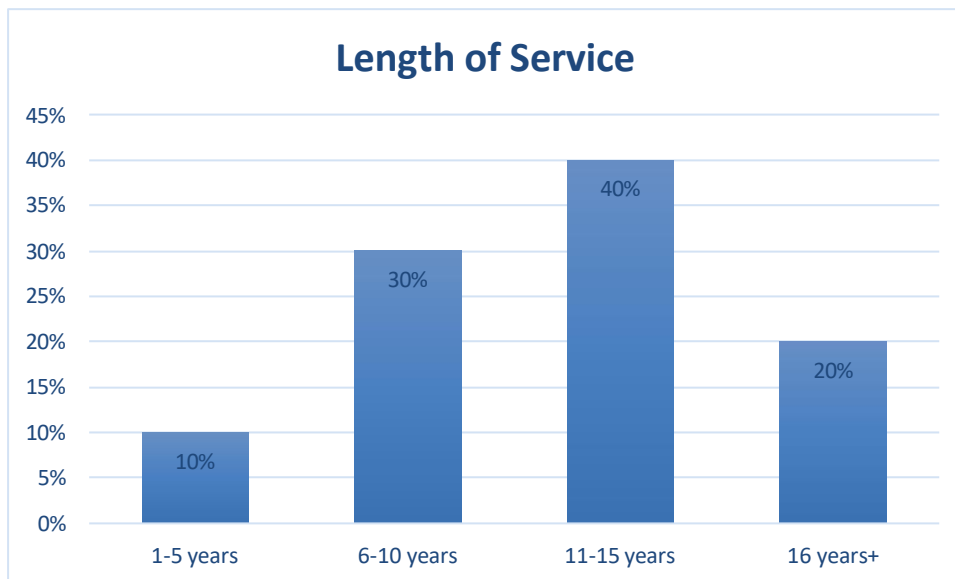


Figure 4.1 shows that 60% of the participants were male while 40% of the participants were female. No participant in the study indicated to prefer not to say. The distribution does not show equal representation for the gender, but it is encouraging that a sizable portion of the participants are female, as this moves the study closer to gender inclusion.

4.2.3 Length of service at PRASA

The findings of the participant's length of at PRASA are illustrated in Figure 4.3 below:

Figure 4.3: Length of service at PRASA

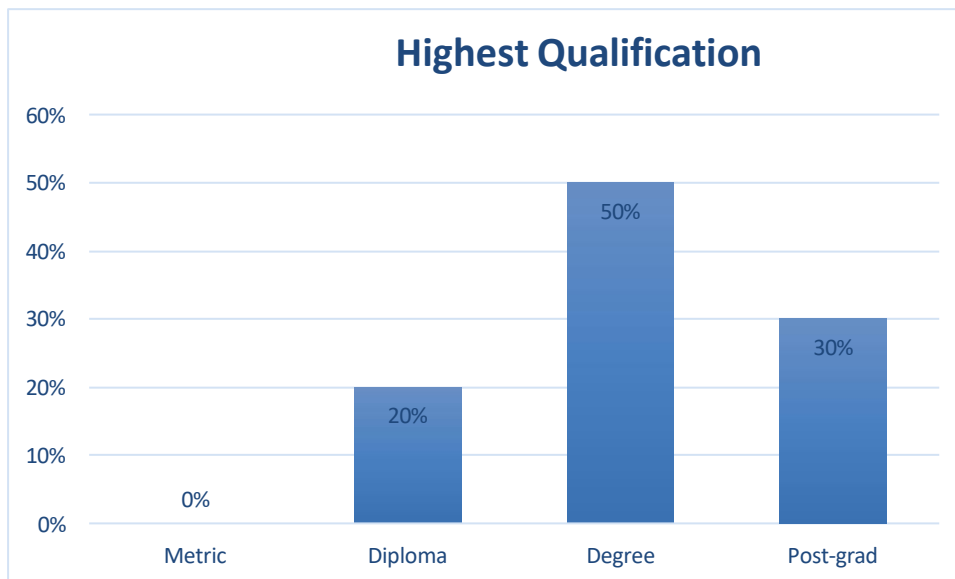


The findings, as shown in Figure 4.3 above, reveal that 10% of the participants worked for 1 to 5 years, 30% worked for 6 to 10 years and 40% worked for 11 to 15 years. In addition, 20% of the participants worked for 16 years and above. The distribution of these results shows that more participants had worked for a long period at PRASA. According to (Stirpe and Revilla, 2024) long-serving employees add deep understanding and specific case examples to the study, as well as strong topic knowledge, technical skills, and practical insights gained during their careers.

4.2.4 Highest qualification of participants

The findings of the highest qualifications of participants are illustrated in Figure 4.4 below:

Figure 4.4: Highest qualification of participants



The findings highlighted in Figure 4.4 show that 0% of the participants had a metric qualification. Diploma holders were 20% while 50% and 30% had a degree and a post-grad qualification respectively. A sizable percentage of participants have a degree or other post-graduate qualification. According to (Baxter and Jack; 2008), the high degree of education attained by the cohort suggests that the participants possess specialized knowledge, advanced theoretical understanding, and analytical skills related to the study's topic.

4.3 Analysis of qualitative data

The data obtained from the interview is analyzed using the thematic data analysis technique in this section. To preserve anonymity and confidentiality, participants were not identified by their names but by codes such as Participant 1 or Participant 2. A minimum of three verbatim quotes from the participants was selected and presented in this section. A total of 10 themes were identified and these include impact of COVID-19 and recovery efforts,

4.3.1 Theme 1: Impact of COVID-19 and recovery efforts

This theme emerged when participants were asked about the trend in PRASA's key operational performance metrics like on-time performance, rolling stock availability, and safety incidents over the past 5 years. The responses of the participants are presented as follows:

Participant	Quote
Participant 1	<p><i>“On-time performance has significantly improved, reaching 90% in Gauteng, 89-90% in Durban, and 88-89% in Cape Town recently. Rolling stock availability is not an issue as they are operating only about 20% of pre-COVID services. Safety incidents are 75% below pre-COVID levels, though this may increase as more trains are added”.</i></p>
Participant 2	<p><i>“In 2019, overall indicators were at 19%. In the 2022-23 financial year, it improved to 58%. For the year just completed (2023-24), overall performance reached 87% on indicators. These indicators include train sets, passenger numbers, CAPEX spent, number of stations restored, and revenue. From a CRES perspective, they've always been a high-performing division but were badly affected by COVID-19”.</i></p>
Participant 3	<p><i>“Over the last 5 years, PRASA's reliability and availability was reducing. This was due to government subsidies not covering the full operating costs, leading to insufficient funds for maintenance of rolling stock and infrastructure. The situation worsened from 2014-</i></p>

	<i>15 onwards, with a large dip during COVID-19 when operations were suspended”.</i>
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Both interview and questionnaire respondents highlighted the significant impact of COVID-19 on PRASA's operations. As one questionnaire participant noted:

"The performance was at its lowest during COVID but has steadily increased over the years - It should be around 50%."

This aligns with interview findings that showed a dramatic decline in passenger volumes and operational performance during the pandemic, followed by a gradual recovery. The questionnaire data further revealed:

"There has been an alarming trend that emerged over the past 5 years until 2022- 23 that saw Metrorail and MLPS passengers both drop with over 90%. This is indicative of the continuing impact of historical mismanagement and poor decisions..."

These findings underscore the dual challenge PRASA faced: recovering from the pandemic while addressing long-standing operational issues.

The primary research findings reveal a significant decline in PRASA's operational performance during the COVID-19 pandemic, followed by a gradual recovery. Participants noted passenger volumes dropping by over 90% and operational indicators falling to 19% in 2019, improving to 58% by 2022-23, and reaching 87% in 2023-24. The results of this primary research highlight PRASA's progress during the previous five years. The pandemic first caused operational hiccups and lowered service standards, which eased the immediate strain on rolling stock availability and on-time performance. It did, however, provide difficulties in upholding general operational dependability and safety regulations. Key performance metrics including on-time performance and overall operational indicators have improved as PRASA has progressively resumed operations and put recovery measures into place. These efforts are reflected in the improved performance measures, which show a successful recovery and operational modifications. However, there are still

problems because of money limitations and COVID-19-related maintenance problems. This implies that despite progress, ongoing work and more funding could be required to completely address underlying problems and guarantee operational sustainability and safety over the long run.

These findings largely align with existing literature on the impact of COVID-19 on public transportation systems globally. Tirachini and Cats (2020) reported similar dramatic declines in ridership and operational capacity across multiple countries. Similarly, (Dzisi and Dei, 2020) found that public transport systems in Ghana experienced up to 80% reduction in passenger numbers during the pandemic.

However, our findings suggest a faster recovery for PRASA compared to some international examples. This contradicts predictions made by (Gkiotsalitis and Cats, 2021), who suggested that public transport might face long-term reduced ridership due to changed work patterns and lingering health concerns. PRASA's relatively quick rebound could be attributed to the essential nature of its services for many commuters in South Africa, as noted by Venter et al. (2021) in their study of urban mobility in South Africa during COVID-19.

I understand. I'll revise the discussion for each theme to include a diversity of opinions from various authors, compare the findings to similar situations in the literature using APA referencing, and discuss whether the findings affirm or contradict what scholars have said. Here's an example of how I would revise Theme 1:

4.3.1 Theme 1: Impact of COVID-19 and recovery efforts

The primary research findings reveal a significant decline in PRASA's operational performance during the COVID-19 pandemic, followed by a gradual recovery. Participants noted passenger volumes dropping by over 90% and operational indicators falling to 19% in 2019, improving to 58% by 2022-23, and reaching 87% in 2023-24.

These findings largely align with existing literature on the impact of COVID-19 on public transportation systems globally. Tirachini and Cats (2020) reported similar dramatic declines in ridership and operational capacity across multiple countries. Similarly, (Dzisi and Dei, 2020) found that public transport systems in Ghana experienced up to 80% reduction in passenger numbers during the pandemic.

However, our findings suggest a faster recovery for PRASA compared to some international examples. This contradicts predictions made by (Gkiotsalitis and Cats, 2021), who suggested that public transport might face long-term reduced ridership due to changed work patterns and lingering health concerns. PRASA's relatively quick rebound could be attributed to the essential nature of its services for many commuters in South Africa, as noted by (Venter et al,2021) in their study of urban mobility in South Africa during COVID-19.

The study also reveals unique challenges faced by PRASA during recovery, such as infrastructure vandalism during lockdowns. This aligns with findings by (Buso et al., 2020), who documented increased vandalism of public infrastructure in South Africa during the pandemic. However, this issue is not widely reported in international literature, highlighting the need for context-specific strategies in managing public transport during crises in developing countries.

The rapid improvement in PRASA's performance indicators post-COVID (from 19% in 2019 to 87% in 2023-24) is noteworthy. This contradicts the more pessimistic outlook presented by (Molloy et al, 2021) for public transport recovery in developed countries. It suggests that factors unique to South Africa's context, such as limited alternative transport options for many commuters, may be driving this rapid recovery.

These findings imply that while PRASA faced severe disruptions, there's a strong foundation for recovery. However, the organization must address both pandemic-related setbacks and pre-existing structural issues to fully regain and improve its operational capacity. This aligns with recommendations by (Hörcher et al, 2022) for a holistic approach to public transport recovery post-COVID.

COVID-19 had a significant impact on the corporate governance landscape of state-owned entities. (Fei & Yang, 2021). Balsmeier and Lööf (2018) examined the impact of COVID-19 on the corporate governance of state-owned enterprises in China. The authors found that COVID-19 has exposed the weaknesses of the existing corporate governance structures and highlighted the need to improve risk management and crisis response mechanisms. The authors recommend that state-owned enterprises should enhance their internal controls, establish crisis management teams, and increase transparency.

4.3.2 Theme 2: Impact of theft and vandalism on infrastructure and operations

The participants were asked about the major infrastructure maintenance backlogs, theft, and vandalism issues affecting PRASA's service reliability and availability. After analyzing the transcript, this theme of theft and vandalism, infrastructure, and operations emerged. The participants responded as follows:

Participant	Quote

Participant 4	<p><i>“The maintenance backlog... yeah, because of working I mean... Some areas, remember when we got in? There was an issue of security which was terminated. They were told that there was a reduction of 3000 security personnel and an injection of about a billion to deal with security issues. The infrastructure was vandalised, even with the lift and there was also eight kilometers of Perway I'm just giving you an example. Eight kilometers of the way, and most of the stations were... They were not functioning. We had to make a priority list of which stations.</i></p> <p><i>One of the areas which pained me a lot was the eastern Cay. The Eastern Cape in terms of Prasa operations was the most</i></p>
	<p><i>neglected... The way infrastructure was just looted. It was just taken because there was no security. No security personnel had uniforms or vehicles to monitor the service rules.</i></p> <p><i>Theft and vandalism---I've spoken about it. I don't know how many people were arrested. I've got pictures of those who were arrested. I've got pictures of areas where there was vandalism when we arrived, but security was put in place”.</i></p>
Participant 6	<p><i>“We experienced high levels of vandalism, especially at non-operational stations. However, with the restoration of services, we now have security in place, which has helped reduce vandalism. We are focused on maintaining and rehabilitating these stations and are on track with rehabilitating their network”.</i></p>

Participant 9	<p><i>“The infrastructure, including tracks, electrical systems, signaling, and communication systems, has been severely damaged by theft and vandalism. Substations were vandalized, and signaling systems were stolen, hampering train operations. The theft of electrical wires made it impossible to run trains in some areas, particularly in Gauteng. PRASA had to embark on an extensive rebuilding program to recover the infrastructure”.</i></p>
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The questionnaire data strongly corroborated the interview findings regarding the severe impact of theft and vandalism. One respondent stated:

"During the absence of visible security personnel and the COVID period, all of PRASA's asset base has been subjected to vandalism and/or if not stolen to the point where the predictable service we once professed is no longer available to serve the transportation needs of South Africa."

This aligns with interview data highlighting the extensive damage to infrastructure, including electrical systems and signaling, which has severely hampered PRASA's ability to provide reliable service.

The primary research findings demonstrate the considerable difficulties PRASA faces in preserving service availability and dependability. In addition to causing physical infrastructure damage, vandalism interferes with electrical and signaling systems that are necessary for the effective and safe operation of trains. These difficulties are made worse by theft, which results in service disruptions and operational downtime. Nonetheless, initiatives are underway to solve maintenance backlogs through focused restoration programs and to prevent vandalism through strengthened security measures. Even though there has been some progress in decreasing vandalism and regaining operational capabilities, continued attention to detail and consistent funding is required to protect PRASA's infrastructure and enhance overall service dependability. These primary research findings resonate with the findings obtained from the literature review. According to (Maluleke, 2023,

PRASA has struggled to safeguard its infrastructure since its inception, the entity has been plagued with a high number of incidences related to theft, vandalism, arson, derailments of trains. Similarly, (Ntloko, 2019) identified theft and vandalism as major obstacles to PRASA's operational efficiency. This aspect was exacerbated by the COVID19 pandemic which saw most of its infrastructure wiped away. However, the authors argue that more needs to be done to address the root causes of the safety and security issues, including the inadequate funding of the rail network and the lack of coordination between various stakeholders. In previous years there used to be rail police officers which were safeguarding the rail network, however over time that function was derelict and handed over to private security companies.

However, the scale of vandalism reported in our study, especially during the COVID-19 lockdowns, appears more severe than previously documented. This contradicts predictions by (Ryseck and Behrens,2022), who suggested that increased security measures implemented by PRASA would lead to a reduction in vandalism incidents.

The study reveals a unique challenge in the South African context: the vulnerability of rail infrastructure during periods of non-operation. This issue is not widely reported in international literature on rail systems. For instance, (Marcysiak and Marcysiak, 2023), in their study of European rail systems during COVID-19, did not report significant increases in vandalism or theft.

Ambe and Badenhorst-Weiss (2018) discusses the challenges faced by PRASA in terms of inadequate infrastructure, safety and security concerns, financial sustainability, and service delivery. The authors suggest that PRASA needs to focus on improving its governance, management, and operational processes in order to address these challenges and leverage opportunities for growth and development. However, the scale of rebuilding needed contradicts the more optimistic projections made by (Vermaak and Groenewald, 2019) about PRASA's infrastructure resilience.

These findings imply that PRASA needs to develop more robust strategies for protecting its infrastructure, particularly during periods of reduced operations.

4.3.3 Theme 3: Financial impact of COVID-19 and structural funding challenges

The participants were asked about how PRASA's revenues, expenditures, and audit outcomes have trended over the last 5 years and the major financial sustainability challenges. After analyzing the transcript, this theme of the financial impact of COVID-19 and structural funding challenges emerged. The participants responded as follows:

Participant	Quote
Participant 7	<i>"We were seeing an upward trend in revenue before COVID, especially with our efforts to commercialize stations. But COVID hit us hard. Our revenue dropped significantly, and our debtors' books increased quite a bit. On the audit side, we've improved from disclaimers for 4 years to a qualified audit last year. It's progress, but we're still working towards an unqualified audit. A major challenge is the misalignment between capital and operational subsidies. We get funding for the new infrastructure, but not enough for maintaining it. Also, National Treasury has cut our budget by R2 billion each year, which is a huge reduction in our capital subsidy."</i>
Participant 9	<i>"The labor component, which was over 50% (60 to 65%) of total costs, was not sustainable. The revenue generated was mostly going to employee costs. The nature of operations made it difficult to manage labor costs, as most employees were permanent with full benefits. There were challenges with employees on extended leave (e.g., trauma leave, maternity leave) still receiving full pay".</i>
Participant 10	<i>"The main issue is revenue. Due to reduced train operations, fare revenue has significantly decreased. The target for the coming year is 640 million, compared to previous levels of around 2 billion. From a property perspective, they've seen year-on-year growth, but it's currently around 650 million, which doesn't close the gap in terms of associated costs across the group. The challenge is to get lines up</i>

	<p><i>and running, address signaling to increase train frequency, and recover lost property revenue due to non-operational stations”.</i></p>
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The questionnaire data provided additional insights into PRASA's financial challenges. A respondent noted:

"PRASA has been getting a disclaimer audit opinion in the past 5 years, mainly because of the incomplete information relating to their assets, their revenues decreased due to trains not operating, expenditure has been high due to the maintenance contracts, and the project of refurbishing the train lines."

This aligns with interview data highlighting the misalignment between capital and operational subsidies and the overall financial strain on the organization.

The primary research findings demonstrate PRASA's financial difficulties, which are made worse by the combined effects of COVID-19 and enduring structural funding problems. PRASA was forced to modify its operational goals and revenue targets due to the severe reduction in fare revenue and operational capacity caused by COVID-19. Due to the financial sustainability being tested by this revenue decline, there are now more debtors and operating limitations. The results of the audit show continuous efforts to enhance financial governance and compliance, even though there are still obstacles to completing audit qualifications. Financial strains are exacerbated by high labor costs and the structured form of employee benefits, which calls for cautious control of operating expenditures. Along with significant budget cuts, there is a financing mismatch between capital investments and operating subsidies, which highlights the necessity of strategic financial planning and advocating for sufficient money to extend and maintain PRASA's services and infrastructure.

These findings largely confirm the financial vulnerabilities of public transport systems during crises, as documented by (Buehler and Pucher, 2021) in their global study of public transport finances during COVID-19. The misalignment between capital and operational subsidies aligns with observations by (Walters, 2018) on the funding challenges faced by South African public transport entities.

However, the extent of PRASA's financial challenges, particularly the persistent issues with audit outcomes, appears more severe than typically reported in international literature. For instance, (Lindau et al, 2020), in their study of Latin American public transport systems, found that while financial strain was common, most entities maintained relatively stable audit outcomes.

The study reveals a unique aspect of PRASA's financial structure: the high proportion of costs dedicated to labor (60-65% of total costs). This contrasts with findings by (Wiegmans and Behdani, 2018) in their comparative study of European rail systems, where labor costs typically constitute 40-50% of total operating costs.

Our findings on the significant budget cuts (R2 billion annually) contradict recommendations by (Havenga et al.,2020), who argued for increased government funding to support public transport recovery post-COVID. This highlights the challenging fiscal environment in which PRASA operates.

These findings imply that PRASA requires comprehensive financial restructuring, potentially including a reassessment of its funding model and labor structure. This aligns with suggestions by (Mbatha and Gumbo,2019) for more flexible and diversified funding approaches for public transport in developing countries.

These primary research findings corroborate the literature review findings. As per (Luke, 2020) the COVID-19 pandemic resulted in a notable decrease in passenger volume because of limitations on mobility and social distancing measures. This decline in ridership immediately affected PRASA's capacity to make money from its main service offering by lowering fare receipts. (Wang and Yan, 2017) revealed that PRASA's already severe structural funding issues were made worse by the company's decreased fare income. These difficulties include underfunding in the past, insufficient subsidies in comparison to operating costs, and ambiguities or delays in obtaining government funding allocations. Concerns regarding PRASA's long-term financial viability have been highlighted by the combination of COVID-19 interruptions and persistent structural financing issues. It will be necessary to implement strategic financial management, maybe change the subsidy arrangements, and look for new partnerships or sources of income to address these problems.

4.3.4 Theme 4: Impact of infrastructure and COVID-19 on passenger volumes and satisfaction

The participants were asked about key performance indicators like passenger volumes, and customer satisfaction scores have changed over time and what they attribute these trends to. After analyzing the transcript, this theme of the impact of infrastructure and COVID-19 on passenger volumes and satisfaction. The participants responded as follows:

Participant	Quote
Participant 3	<i>“The passenger volumes changed. I don't have the figures. The figures appear on the annual report... I can't remember whether they did the customer satisfaction survey. But when you go into that environment of oversight, you always have some customers complaining about 123123123. But the volumes increased, especially the corridor in Mahwah, Bandy, which was... a residential route. It increased tremendously, the melody route, even before unveiling the new train. It increased tremendously. The numbers improved very drastically in those places in the Western Cape. If you go into the social media platforms of Braza, you'll get the views of the customers”.</i>

Participant 1	<i>"For Prasa CRES, we don't currently have KPIs linked to tenant customer satisfaction scores. However, with the new blue trains, we're getting brilliant responses from commuters. They feel secure with the security on the train, are happy with the price, and appreciate the quality of the modern train. It's no longer just lower LSM people traveling; we're seeing higher LSM people using the train too."</i>
Participant 4	<i>"Passenger volumes declined significantly, with a major drop during COVID. In 2014-15, PRASA had 550 million passengers (not the peak year). Customer satisfaction has improved due to new trains. Improvements made to some stations".</i>

Both data sources indicated a significant decline in passenger volumes over the past five years. A questionnaire respondent observed:

"Both MLPS passenger numbers and Metrorail passengers million passengers have been in decline over the past 5 years... While this culminated in an improved fare revenue figure when compared to the prior financial year, the cumulative fare revenue remains low, considering that this should be PRASA's main source of income."

This decline was attributed to factors such as lack of train and infrastructure maintenance, lost public confidence, and safety concerns.

The primary research findings demonstrate how infrastructure investments, new train

introductions, customer satisfaction, and the disruptive effects of the COVID- 19 pandemic interact dynamically to affect PRASA's performance indicators. Due to travel limitations and safety concerns, the pandemic resulted in a dramatic fall in passenger volumes. PRASA's attempts to maintain or increase ridership were hampered by this downturn, despite prior achievements in raising service standards. However, customer satisfaction has improved as a result of the introduction of contemporary trains and the improvement of station amenities. Improved security, comfort, and service quality are perceived by commuters, which raises satisfaction levels and ridership attractiveness. These findings partially align with global trends observed by (Luke, 2020), who documented widespread declines in public transport ridership during the pandemic. However, the improvement in customer satisfaction, despite reduced services, contrasts with findings by (Wang et al, 2021), who reported decreased satisfaction levels among public transport users in China post-COVID. Global and local travel patterns, including passenger train services, were interrupted by the COVID-19 epidemic (Ambe & Badenhorst-Weiss, 2018). PRASA very certainly saw a decrease in the number of passengers during lockdowns and other times when movement was limited. Passenger behavior was also impacted by safety worries about possible viral transmission and packed trains (Akinlabi & Mabunda, 2017).

The study reveals a unique aspect of PRASA's recovery: the attraction of higher-income passengers to new services. This contradicts predictions by (Venter et al., 2021), who suggested that higher-income groups in South Africa would be more likely to shift to private transport post-pandemic.

Our findings on the varying recovery rates across different routes (e.g., stronger recovery in Western Cape) shows uneven development of South African urban rail systems.

These findings imply that while PRASA faces significant challenges in recovering passenger volumes, there are opportunities to build on improved customer satisfaction through continued service enhancements.

4.3.5 Theme 5 Governance issues and leadership instability

The participants were asked about the effectiveness of oversight from the Department of Transport and PRASA's board and the governance issues that need resolution. After analyzing the transcript, this theme of governance issues and leadership instability emerged. The participants responded as follows:

Participant	Quote
Participant 7	<i>"I think the presence of the shareholder representative in the Board is USELESS unless if those that are deployed are incompetent. Unfortunately, PRASA does not have a MOI (Memorandum of Incorporation) which creates a blurring line between the DOT and Board. The respect of the governance framework is needless considering that the shareholder representative are themselves semi-gods. The Board should be empowered to take decision, but the DOT should not be the obstacles because there is the custodian of the subsidy that PRASA relies on given its cash flow challenges".</i>

Participant 1	<i>“Governance issues are evident, especially with irregular expenditure and leadership instability. Stabilizing leadership and having permanent structures would help improve governance”.</i>
Participant 9	<i>“The Department of Transport plays a crucial role in oversight but faces a skills shortage that affects its ability to address policy-related problems. The board's oversight has been good, with the previous board facilitating progress in rebuilding and recovery efforts. However, resolving lingering issues like irregular expenditures has been challenging due to the involvement of individuals no longer with the company”.</i>
Participant 3	<i>“The Department of Transport could have offered more support in terms of accelerating projects. There has been instability in the board since the time of Molefe as chairman. The frequent changes in board members, often with people who don't understand the rail industry, led to poor decision-making. The instability of the board had a negative impact on operations”.</i>

The questionnaire data reinforced interview findings regarding governance challenges. One respondent stated:

"Leadership changes-top management doesn't stay long in their positions, positions always vacant or people acting. This results in a problem of not seeing change in PRASA's performance because of this instability in leadership positions."

This instability has contributed to inconsistent decision-making and implementation of turnaround strategies.

The results from the primary data show that the DOT and PRASA's board members' respective duties and responsibilities are unclear due to the lack of a clear MOI. This uncertainty can cause disagreements and hold up decision-making, which makes it more difficult for the company to handle operational difficulties. For instance, (Veeneman and Mulley, 2018), in their study of public transport governance in Europe, found that while governance challenges were common, most entities had clear foundational documents defining roles and responsibilities. Continuity in governance procedures has been interrupted by instability in board leadership and turnover in board makeup. PRASA's capacity to accomplish long-term organizational objectives and preserve operational stability is impacted by this instability, which jeopardizes strategic planning, policy implementation, and oversight roles. Although the DOT and board's monitoring is acknowledged, its efficacy varies because of a lack of skilled workers, frequent leadership changes, and past governance problems such as erratic spending.

The study by (Vermaak and Groenewald, 2019) found that poor corporate governance practices at PRASA had a significant impact on the organization's ability to deliver public transport services effectively. The authors recommend the establishment of an independent regulator, improving the independence of the board, and enhancing stakeholder engagement. The entity has been plagued by instability at Board level over the past couple of years including the year 2020 where PRASA had no board. The previous Board was dismissed by the Minister of Transport, this also saw the appointment of an administrator who acted as both the board and the group chief executive office. This period saw one of the weakest corporate governance practices which was eventually overturned by the courts and this ultimately led to the Minister of Transport appointing a permanent board. The leadership instability noted in our study displays the negative impacts of frequent leadership changes in public entities. The study reveals a unique aspect of PRASA's governance: the perceived interference of the DOT in board decisions. This contrasts with recommendations by (Qhobosheane, 2018) for greater autonomy of state-owned enterprise boards in South Africa.

Our findings on the skills shortage within the DOT for effective oversight shows that

there are capacity challenges in South African government departments.

These findings imply that PRASA requires significant governance reforms, potentially including the establishment of a clear MOI and measures to ensure board independence. This aligns with recommendations by (Qhobosheane, 2018) for strengthening governance structures in public transport entities to improve performance and accountability.

4.3.6 Theme 6: Challenges in skills, procurement, and union relations

The participants were asked about the systemic issues like skills gaps, procurement delays, unions have affected service delivery and turnaround efforts. After analyzing the transcript, this theme of challenges in skills, procurement, and union relations emerged. The participants responded as follows:

Participant	Quote
Participant 10	<p><i>“Skills gaps can only be identified after a thorough skills audit has been done and completed. Unfortunately, PRASA employees are allegedly lowly skilled, and they are afraid that this process might expose what they have. The current leadership of the SCM is either naïve or deliberate with the intention to drive self interest</i></p> <p><i>Procurement delays at PRASA are manmade. There has been</i></p>

	<i>Evidence of deliberate sabotage to the process and Safety and Security has never produced any reliable reports/credible evidence that either management or Board can rely on. The credible process could only be Probity Reports and Legal Opinion”.</i>
Participant 6	<i>“Technical areas like engineering face skills shortages due to external competition, necessitating internal training and development initiatives. Procurement delays, often due to litigation, have slowed progress, particularly in building new maintenance depots. PRASA has built a positive relationship with unions and has implemented programs like voluntary severance packages to manage excess workforce aligning with operational needs”.</i>
Participant 9	<i>"Procurement delays are a significant issue. Whether it's due to skills gaps or extreme diligence, evaluating tenders takes a long time. There's a trade-off between governance and quick service delivery. The process is thorough but slow, which affects our ability to deliver services quickly."</i>

Questionnaire respondents highlighted similar issues to those identified in interviews, particularly regarding procurement delays and skills gaps. One participant noted:

"Procurement delays-this is mainly due to lack of clearly defined procedures, lack of necessary skills from the team responsible to craft specifications and reluctance to approve procurement due to internal politics."

These challenges have contributed to PRASA's inability to effectively address its operational and infrastructure issues.

The results of the primary research demonstrate how important it is to address skill gaps through thorough skills audits and focused training programs in order to improve personnel capacities and guarantee the efficiency of technical operations within PRASA. PRASA's capacity to speed infrastructure projects and service delivery is impacted by the length of procurement cycles caused by the care taken in tender review procedures and the frequency of litigation. To align its personnel with operational requirements, promote cooperation, and reduce industrial disturbances, PRASA benefits from proactive management of its union contacts, which includes the implementation of workforce management measures such as voluntary severance packages. However, the reported high labor costs (60-65% of total costs) contradict international benchmarks noted by (Wiegman's and Behdani, 2018), who found average labor costs in rail entities to be around 45-50% of total operating costs.

The primary research findings are in line with the views of (Beerli et al, 2019) that because of budget constraints for training programmes, bureaucratic roadblocks that impede career advancement, and rivalry from the private sector, public sector organisations frequently struggle to draw in and keep qualified workers. The necessity for ongoing training and development in technical and operational jobs within rail organisations is highlighted in the European Commission's report on skills in the rail sector. It pinpoints the deficiencies in the specialised knowledge needed to update infrastructure and enhance service dependability (Litman, 2019). In his discussion of the legal complexity of public procurement, (Caswell,2021) places particular emphasis on problems including protracted procurement procedures, regulatory compliance, and the possibility of legal challenges that might cause delays and higher project costs. However, the extent of skills gaps and the reported reluctance to conduct thorough skills audits contradicts recommendations by (Langeni, 2020) for regular skills assessments in South African public entities. This suggests a more deeply rooted issue in PRASA's organizational culture than previously recognized in the literature. The study reveals a unique aspect of PRASA's challenges: the allegation of deliberate sabotage in procurement processes. This

goes beyond the typical inefficiencies, suggesting a need for more rigorous anti-corruption measures.

These findings imply that PRASA needs a comprehensive strategy to address skills gaps, streamline procurement processes, and optimize its workforce. This calls for holistic reforms in South African state-owned enterprises to improve operational efficiency and service delivery.

4.3.7 Theme 7: Financial and economic impact of high transportation costs

The participants were asked about how the decline in PRASA's service has impacted transportation costs and economic opportunities for communities dependent on it. After analysing the transcript, this theme of the financial and economic impact of high transportation costs emerged. The participants responded as follows:

Participant	Quote
Participant 3	<i>“The average customer spends around 500 rand or more on transportation due to the poor rail service, which is a significant portion of low-income earners' salaries. Some people have even left jobs because they were spending more on transportation than earning. The decline in service has also affected economic</i>

	<i>opportunities for those dependent on the rail system, such as informal traders who sell goods in towns”.</i>
Participant 1	<i>"Transport costs for commuters have more than doubled as they've had to switch to more expensive taxi services. This has significantly increased traveling costs for lower-income communities to get to work. The taxi industry quickly filled the gap when trains weren't running, but at a much higher cost to commuters."</i>
Participant 8	<i>"Significant increase in transportation costs for commuters. Example: South Africans paying ~R510 per month on transport compared to R108 in Vietnam (adjusted for income). High transport costs (up to 50% of income) negatively impacting quality of life and economic opportunities”.</i>

The questionnaire data provided additional insights into the economic impact of PRASA's decline. Respondents noted increased transportation costs for commuters and negative impacts on businesses reliant on rail services. One participant observed:

"It takes about R50 and R100 from Pretoria to Johannesburg on a taxi and Gautrain respectively. PRASA's inability to meet passenger needs has impacted the livelihoods of many people in South Africa as there is no alternative to travelling on high costs."

This aligns with interview data highlighting the broader economic consequences of PRASA's performance issues.

The main research findings show that commuters are forced to devote a greater

percentage of their income to travel expenses as a result of rising transport costs brought on by inadequate rail service. This lowers discretionary income, restricts household savings, and might even force people to change careers or turn down job offers completely. The mobility of informal traders and other workers, who rely on effective transit networks to reach markets and employment prospects, is disrupted by the loss of service. This disruption hinders local economic growth and activity in addition to having an impact on individual livelihoods.

Havenga et al., (2020) research indicates that elevated travel expenses eat up a substantial chunk of household budgets, particularly for low-income households. This expense lowers disposable income that could be used to purchase additional goods and services, which affects total consumer spending and economic expansion. According to a study by (Oviedo et al, 2019), high transportation costs impede economic mobility by limiting access to important services, employment prospects, and educational options. This restriction may make socioeconomic development more difficult and increase income disparity. This contradicts more optimistic projections by (Walters,2018) about the resilience of South African public transport users to fare increases.

The reported job losses due to high transport costs align with concerns raised by (Turok et al., 2017) about the role of transport in perpetuating spatial inequality in South African cities.

The study reveals a unique aspect of PRASA's economic impact: the significant effect on informal traders operating at and around stations. This dimension is not widely explored in international literature on public transport economics. For instance, (Tirachini and Cats, 2020), in their global study of COVID-19 impacts on public transport, did not specifically address effects on informal economies surrounding transport hubs.

Our findings on the comparative transport costs between South Africa and other countries (e.g., R510 per month in South Africa vs. R108 in Vietnam, adjusted for income) align with observations by (Luke and Heyns, 2020) on the high cost of transport in South Africa relative to other developing countries.

These findings imply that PRASA's reliability and affordability have far-reaching economic consequences beyond just commuter inconvenience. It leads us to consider public transport as a crucial element of economic development policy in South Africa.

4.3.8 Theme 8: Broad economic impact of PRASA's performance issues

The participants were asked about the sharing examples of specific economic impacts on businesses, employment, or growth opportunities due to PRASA's performance issues. After analyzing the transcript, this theme of the broad economic impact of PRASA's performance issues emerged. The participants responded as follows:

Participant	Quote
Participant 3	<i>“PRASA has to stabilize itself first as a viable SOE. The economic impact is that those who cannot afford taxis and other public transport would rely on trains provided by PRASA. It is unfortunate that there are areas/regions that have been neglected and they continue to endure ridiculous prices by the taxi industry. As to employment, PRASA has been extremely afraid to restructure as it is common cause that it has an oversupply of employees. The Executive Structure in its current form over-burdens the fiscus and there are unnecessary repetitions of posts whose job descriptions do not differ. There is a growth potential if PRASA was to be left to run like a business not ONLY a baby of DOT”.</i>

Participant 5	<i>“Stations where the trains normally operate have been a major source of income for street vendors and hawkers, however when the trains were not operating those business ceased to operate. The hawkers also pay rental to PRASA CRES for operating in the stations so at the time when trains were not operating in train stations that were badly vandalized, that source of revenue diminished. high transport costs that have a ripple effect on the economy as a result of diminished disposable income for commuters”.</i>
Participant 6	<i>“Factories established near railway lines to transport goods and move employees have been negatively impacted, with some closing down completely. The car manufacturing industry has also suffered, as trains transporting vehicles to ports have been targeted by criminals, leading to theft of removable parts. This has affected export orders and raised concerns about reliability among international customers”.</i>

The questionnaire data provided valuable insights into the broader economic consequences of PRASA's performance decline. Respondents highlighted several key impacts:

Increased transportation costs: As one participant noted, *"It takes about R50 and R100 from Pretoria to Johannesburg on a taxi and Gautrain respectively. PRASA's inability to meet passenger needs has impacted the livelihoods of many people in South Africa as there is no alternative to travelling on high costs."*

Business closures and job losses: Several respondents mentioned the closure of businesses reliant on commuter rail. One stated, *"Some businesses have had to cut costs by retrenching some of their due to decreased profits or even losses. Some*

businesses have been pushed to the edge of closing down."

Impact on informal traders: A respondent observed, *"Informal traders are impacted when PRASA is not operational as they cannot find ways to take business to customers but when near trains they can easily trade."*

Reduced economic activity around stations: *"Businesses built around train stations have lost key customers" and "Increase in vacant retail space and major stations e.g. park"* were noted by respondents.

Disproportionate impact on low-income communities: Several respondents identified that communities most affected were those with low-income earners who relied heavily on affordable rail transport. Areas specifically mentioned included *"Soweto, Mamelodi, Daveyton, Mabopane, Soshanguver, Krugerdorp/Mogale City, Vaal."*

These findings align with and expand upon the interview data, providing a more comprehensive picture of the economic ripple effects caused by PRASA's operational challenges.

The primary research findings show that local companies and street sellers who depend on station-based commerce are impacted by commuters' reduced spending power as a result of high transportation costs. This recession highlights the wider effects on the local economy and means of subsistence. Relying on rail freight presents logistical issues and operational delays for factories and the manufacturing sector. The susceptibility to theft and dependability problems exacerbates operational complexity, affecting export orders, production schedules, and the stability of the economy as a whole.

Litman (2019) research emphasizes how important public sector performance is in promoting economic growth. Good public organizations promote the provision of public services, regulatory predictability, and infrastructure development, all of which are necessary to draw in private capital and boost economic activity. Public finances

may be strained by inefficient resource utilization and cost overruns, which restricts the ability of the government to make investments in vital sectors like infrastructure, healthcare, and education. The reported closures of businesses near stations shows the economic importance of transit-oriented development.

However, the extent of the impact, particularly on the manufacturing sector and export orders, appears more severe than typically reported in public transport literature.

The study reveals a unique aspect of PRASA's economic impact: the effect on the car manufacturing industry due to theft during rail transport. This specific issue is not widely discussed in international literature on rail transport economics. For instance, (Rodrigue, 2020), in his comprehensive study of transport systems and economic development, does not address this vulnerability in rail freight systems.

Our findings on the disproportionate impact on low-income communities in specific areas (e.g., Soweto, Mamelodi, Daveyton). These findings imply that PRASA's performance has far-reaching consequences for various sectors of the South African economy, extending beyond immediate transport concerns. This aligns with arguments by (Mbatha and Gumbo, 2019) for integrating public transport planning more closely with broader economic development strategies.

4.3.9 Theme 9: Critical areas for PRASA's performance improvement

The participants were asked about the top three priority areas for PRASA to focus on to improve its performance and service reliability. After analyzing the transcript, this theme of critical areas for PRASA's performance improvement emerged. The participants responded as follows:

Participant	Quote

Participant 2	<i>“The top three priority areas for improving performance are: improving signaling, expediting procurement processes, and regaining commuter confidence”.</i>
Participant 8	<i>“Top 3 priority areas for improvement: Infrastructure rebuild and recovery (including modernization); Customer-oriented service and Financial sustainability”.</i>
Participant 4	<i>“First, security is crucial. We need to safeguard our infrastructure and our commuters. Second, we need more funding to deliver proper service. Third, we need to strengthen governance throughout the organization, not just in supply chain management.”</i>
Participant 3	<i>“1. Installing signaling systems for safety and to allow more frequent trains. 2. Improving the condition of the track (perway) to allow for</i>

	<p><i>higher speeds. 3. Implementing an electronic ticketing system to replace the current manual paper ticket system”.</i></p>
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Questionnaire respondents identified several key areas where PRASA needs to focus its improvement efforts:

1. **Security and infrastructure protection:** Many respondents highlighted the need to address vandalism and theft. One stated, "*Security of the assets*" as a top operational challenge.
2. **Procurement processes:** "*Procurement delays*" were frequently mentioned as a critical issue to address.
3. **Skills development and retention:** Respondents noted issues such as "*High employee turnover*" and "*Loss of key skilled employees*" as areas needing attention.
4. **Modernization of assets:** "*Aged assets*" were identified as a key challenge, with one respondent suggesting the need to "Modernise" as part of turnaround efforts.
5. **Financial management:** Improving "*revenue leakage*" and securing adequate funding were mentioned as crucial areas for improvement.
6. **Governance and leadership stability:** Respondents emphasized the need for consistent leadership and improved governance practices.
7. **Customer service and reliability:** Improving service reliability and customer satisfaction were seen as critical for regaining public trust and increasing ridership.

One respondent provided a comprehensive list of recommendations:

1. Invest in human capital
2. Implement talent management strategy
3. Reward excellence
4. Increasing funding
5. Modernise
6. Stop revenue leakage
7. Implement easy creative AI for payments; create an APP that can be downloaded for

electronic ticket purchases that do not require printing - same why people pay using their phones at retail shops"*

These identified areas for improvement align closely with the findings from the interview data, reinforcing the key challenges PRASA needs to address in its turnaround efforts.

The primary research findings demonstrate that increasing safety, efficiency, and service frequency requires updating infrastructure, including track conditions and signaling systems, security enhancement, infrastructure modernization, procurement process optimization, skills development, financial management, governance stability, and customer service improvement. Rebuilding commuter confidence and growing ridership need to improve customer experience through more dependable and high-quality service delivery. Effective resource management and operational efficiency are contingent upon the acquisition of sufficient funds, the maintenance of sound financial practices, and the reinforcement of robust governance frameworks.

These findings largely align with recommendations by (Vermaak and Groenewald, 2019) for comprehensive reforms in South African state-owned enterprises. The emphasis on security and infrastructure protection confirms observations by (Nxele,2021) on the centrality of these issues to PRASA's operational challenges.

However, the breadth of critical areas identified suggests a more complex challenge than often portrayed in literature on public transport reform. For instance, while (Poku-Boansi and Marsden, 2018) emphasize technological upgrades in their study of African public transport systems, our findings suggest equal importance for human resource and governance reforms.

The study reveals a unique recommendation: the implementation of AI for payment systems. This goes beyond typical modernization suggestions in South African public transport literature, such as those proposed by (Luke and Heyns,2020), indicating a potential for leapfrogging in certain operational areas.

Our findings on the need for talent management and reward systems align with recommendations by (Langeni, 2020) for improving public sector human resource

management. However, the emphasis on modernizing assets contradicts assertions by (Walters, 2018) that PRASA's primary challenges are managerial rather than infrastructural.

The core of PRASA's activities is its infrastructure. The authors stress the importance of making significant investments in the modernization and upkeep of railway infrastructure, including train stock, stations, signaling systems, and tracks (Alonso-Almeida et al., 2020). Inefficiencies, safety risks, and service interruptions result from infrastructure neglect. To enhance PRASA's decision-making procedures, accountability, and transparency, institutional changes and effective governance frameworks are required. The writers support governance changes that improve oversight procedures, expedite bureaucracy, and fortify leadership (Schick, 2017).

4.3.10 Theme 10: Strengthening communities via collaborative partnerships

The participants were asked about the role PRASA can play in supporting the economic development of local communities through improved passenger rail services. After analyzing the transcript, this theme of strengthening communities via collaborative partnerships emerged. The participants responded as follows:

Participant	Quote
Participant 2	<i>“We have cooperative program focused on horticulture. Expanding this program to include facility maintenance could further support local communities. Additionally, resuming programs for engineering services, bursaries, and internships would also help”.</i>

Participant 10	<i>"We're expanding our cooperative programs beyond just cleaning services. We're looking at providing various services in areas close to our infrastructure, aiming to bring economic activity to lower- income areas. This approach is better than just giving people jobs - it allows them to own businesses and share profits."</i>
Participant 4	<i>"PRASA should form partnerships with industries where most of their workers depend on PRASA's transport. They should also collaborate with municipalities, potentially through agreements where municipalities contribute to solving PRASA's challenges".</i>

The questionnaire data revealed insights into how PRASA can support local economic development through improved passenger rail services and collaborative partnerships.

Leveraging PRASA's unique position: One participant emphasized, *"PRASA is integral to the future of integrated transportation as their lines are in many key points which can easily be integrated with busses and taxis. Efficient mobility of people allows them to be productive rather than spending hours on the road."*

Focusing on affordable transportation: A respondent noted, *"Through affordable transportation PRASA has a huge impact on the economy as thousands of people prefer using trains as their daily mode of transport."*

These insights align with and expand upon the interview data, highlighting the potential for PRASA to play a significant role in community development through strategic partnerships and innovative programs. By leveraging its infrastructure and position in the transportation ecosystem, PRASA can contribute to local economic growth, job creation, and improved mobility for underserved communities.

The emphasis on collaborative partnerships underscores the importance of a holistic approach to PRASA's turnaround strategy, one that considers not just operational

improvements but also the organization's broader socio-economic impact. This aligns with the study's objectives of exploring strategies for enhancing PRASA's contribution to local economies and sustainable development.

The results of the primary research demonstrate PRASA's capacity to spur economic growth through cooperative alliances and neighborhood-focused projects. PRASA has the potential to make a substantial impact on employment creation, economic empowerment, and sustainable growth in the communities it serves by growing its cooperative programs, encouraging local entrepreneurship, and establishing strategic partnerships with businesses and government agencies. These initiatives support inclusion and resilience in regional economies by strengthening the socioeconomic fabric of local communities and improving passenger rail services. The emphasis on cooperative programs and local entrepreneurship confirms the potential for public entities to stimulate local economies.

Collaborations can enhance service delivery and infrastructure accessibility. The authors emphasize the need for teamwork in developing transport networks, modernizing infrastructure, and improving connection to underprivileged communities (Balsmeier & Lööf, 2018). To strengthen communities through partnerships, resilience and sustainable behaviors must also be promoted. To guarantee long-term advantages for locals, authors address programs that emphasize environmental stewardship, disaster preparation, and community resilience (Wang et al., 2019).

However, the extent of proposed collaboration, particularly with municipalities and industries, goes beyond typical public transport partnership models discussed in literature. For instance, while (Veeneman and Mulley, 2018) discuss public-private partnerships in transport, they don't explore the kind of deep community integration suggested by our findings.

The study reveals a unique aspect of PRASA's potential community impact: the use of its infrastructure to stimulate economic activity in lower-income areas. This approach is not widely discussed in international literature on rail transport. For example, (Rodrigue, 2020), in his extensive work on transport geography, doesn't explore this specific potential of rail infrastructure.

Our findings on the importance of affordable transportation for economic impact align with arguments by (Chacon-Hurtado et al.,2021) on the role of transport costs in perpetuating or alleviating poverty. However, the suggested approach of enabling local business ownership rather than just job creation contradicts more traditional employment-focused strategies proposed by (Walters, 2018) for public transport entities.

These findings imply that PRASA has the potential to play a much broader role in community and economic development than traditionally envisioned for a transport entity.

4.4 Conclusion

This chapter included an overview of demographic information, such as age, gender, years of service, and participant qualifications; in addition, the results of the interviews were analyzed, interpreted, and discussed; a thematic data analysis tool was employed, and themes were identified. The next chapter focuses on the conclusions and recommendations of the study.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the key conclusions drawn from the research findings and provides comprehensive recommendations to address the challenges faced by PRASA. The conclusions and recommendations are aligned with the research objectives and aim to provide practical solutions to improve PRASA's performance, governance, and service delivery. Additionally, this chapter includes suggestions for further research and draws comparisons with successful railway turnarounds in other emerging economies.

5.2 Conclusions

Based on the research findings, the following key conclusions can be drawn:

5.2.1 Impact of COVID-19 and Infrastructure Challenges

The COVID-19 pandemic significantly disrupted PRASA's operations, leading to reduced services and revenue. However, it also provided an opportunity for PRASA to address long-standing infrastructure issues. The research found that while there has been progress in restoring services and improving key performance metrics, PRASA still faces significant challenges related to infrastructure maintenance, vandalism, and service reliability.

5.2.2 Financial Sustainability

PRASA faces ongoing financial sustainability challenges, exacerbated by reduced fare revenue due to COVID-19 and structural funding issues. The mismatch between capital and operational subsidies, along with budget cuts, has impacted on PRASA's ability to maintain and expand services. High labor costs and inefficient resource allocation have further strained finances.

5.2.3 Governance and Leadership

Instability in leadership and governance structures has negatively impacted PRASA's performance. Frequent changes in board composition, lack of industry expertise among some board members, and unclear delineation of responsibilities between the Department of Transport and PRASA's board have hindered effective decision-making and strategic planning.

5.2.4 Economic Impact

The decline in PRASA's services has had significant economic impacts on commuters, local businesses, and the broader economy. Higher transportation costs for commuters have reduced disposable income and economic opportunities. The unreliability of rail services has also affected businesses dependent on rail infrastructure for logistics and transportation of goods.

5.2.5 Skills and Procurement Challenges

PRASA faces skills gaps in critical technical areas and challenges in its procurement processes. Delays in procurement, often due to litigation or overly cautious evaluation processes, have slowed down infrastructure projects and service improvements.

5.3 Recommendations

Based on the research findings, several key areas emerge as critical for PRASA's turnaround and improved performance.

A comprehensive infrastructure modernization and security strategy is paramount. This should prioritize upgrading signaling systems and track infrastructure to enhance safety and service frequency. Implementing advanced security measures, including CCTV, drone surveillance, and smart sensors, can help protect assets from vandalism and theft. A phased approach focused on high-impact corridors could demonstrate quick wins and rebuild public confidence. This infrastructure overhaul would directly address the operational challenges identified in the study, potentially leading to improved service reliability and increased ridership.

Addressing financial sustainability is crucial for PRASA's long-term viability. The organization should review and restructure its funding model to better align capital and operational subsidies. Implementing cost optimization measures, including a review of the labor structure, could help manage expenses. Diversifying revenue streams through increased commercialization of stations and exploring transit-oriented development opportunities could provide additional financial resources. These measures would help alleviate the financial pressures identified in the research, potentially freeing up resources for service improvements and infrastructure investments.

Governance and leadership stability emerged as significant concerns in the study. Establishing clear governance frameworks, including a well-defined Memorandum of Incorporation, would clarify roles and responsibilities between the Department of

Transport and PRASA's board. Implementing a skills-based board appointment process and developing a leadership stability plan could enhance decision-making and strategic planning. These governance improvements would address the leadership instability issues highlighted in the research, potentially leading to more consistent policy implementation and improved organizational performance.

The research revealed significant economic impacts from PRASA's service decline. To address this, PRASA should expand cooperative programs and partnerships with local communities to support economic development and job creation. Collaborating with industries and municipalities to align transportation services with economic development goals could help mitigate some of the negative economic consequences identified in the study. Implementing a comprehensive stakeholder engagement strategy could help rebuild trust and improve responsiveness to community needs.

Addressing skills development and procurement efficiency are essential for improving PRASA's operational capabilities. Conducting a thorough skills audit and implementing targeted training programs would address critical skills gaps identified in the research. Streamlining procurement processes while maintaining necessary governance controls could help accelerate infrastructure projects and service improvements. Developing partnerships with educational institutions could create a pipeline of skilled professionals for the rail industry, addressing the human resource challenges highlighted in the study.

5.4 Implementation Strategy

To ensure effective implementation of these recommendations, PRASA should develop a comprehensive turnaround strategy with clear timelines, milestones, and accountability measures. This strategy should be driven and monitored by a dedicated transformation office, which would oversee the implementation process and ensure consistent progress. Crucial to the strategy's success is engaging key

stakeholders, including government entities, labor unions, and local communities, to build broad support for the transformation process. This engagement should be ongoing and transparent, fostering a collaborative approach to PRASA's revitalization. Additionally, implementing a robust performance management system linked to strategic objectives would help track progress and maintain focus on key goals. Regular reviews and adaptations of the strategy based on progress assessments and changing circumstances would ensure the plan remains relevant and effective. This flexible, stakeholder-inclusive approach would allow PRASA to navigate challenges and capitalize on opportunities as they arise during the transformation process, increasing the likelihood of successful implementation of the recommended changes.

5.5 Comparative Analysis of Other Emerging Economies

Several emerging economies have successfully implemented railway turnaround strategies, offering valuable lessons for PRASA. India's comprehensive modernization of its railway system provides a notable example, with initiatives including the digitalization of ticketing systems, public-private partnerships for station redevelopment, and the creation of dedicated freight corridors (Kumar & Jain, 2018). China's focus on rapid infrastructure development, technology transfer, and integration of high-speed rail with urban development plans demonstrates the potential for transformative change in the sector (Wang et al., 2019).

In South America, Brazil has taken an integrated approach to urban rail systems, implementing solutions such as bus rapid transit and light rail to complement and feed into heavy rail systems, enhancing overall urban mobility (Lindau et al., 2017). Malaysia's holistic approach to rail development, encompassing human capital development and localization of technology and manufacturing, offers insights into building a sustainable and locally rooted rail industry (Kaewunruen et al., 2020). Turkey's successful restructuring of its state railways, including the separation of infrastructure management from operations and the introduction of high-speed rail services, provides a model for organizational reform and service modernization (Akgüngör et al., 2021).

These diverse examples highlight common themes of modernization, integration with

broader urban and economic development plans, and innovative approaches to funding and operations. They demonstrate that successful railway turnarounds often require a multifaceted approach, addressing not only technical and infrastructural aspects but also organizational structure, human resources, and integration with wider transportation and urban planning strategies. PRASA could draw valuable insights from these international experiences, adapting relevant strategies to the South African context to inform its own transformation efforts.

5.6 Suggestions for Further Research

To build on this study and support PRASA's ongoing transformation, several areas warrant further investigation. A comparative analysis of funding models for railway operations in emerging economies could provide valuable insights into sustainable financing strategies applicable to the South African context. This could help address the financial challenges identified in the current research.

Evaluating the social and economic impacts of improved rail services on urban development and social inclusion in South African cities would provide a more comprehensive understanding of PRASA's potential role in economic development. This aligns with the studies' findings on the broader economic consequences of PRASA's performance.

Assessing the potential for transit-oriented development around PRASA stations and its impact on revenue generation and urban regeneration could offer new perspectives on leveraging PRASA's assets for economic growth. This builds on the identified need for diversifying revenue streams.

Investigating innovative technologies and their potential application in enhancing railway safety, security, and operational efficiency in the South African context could provide solutions to some of the infrastructure and security challenges highlighted in the current study.

Analyzing successful change management strategies in public sector organizations and their potential application to PRASA's transformation process could offer insights

into overcoming the organizational and cultural barriers identified in the research.

These research directions would contribute to a more comprehensive understanding of the challenges and opportunities facing PRASA, building on the foundations laid by the current study and providing actionable insights for policymakers and stakeholders.

5.7 Conclusion

PRASA faces significant challenges, but with focused efforts on infrastructure modernization, financial sustainability, improved governance, community engagement, and skills development, it can transform into an efficient and reliable public transportation provider. The successful implementation of these recommendations, informed by lessons from other emerging economies, will not only improve PRASA's performance but also contribute significantly to South Africa's economic development and the well-being of its citizens. Continued research and adaptation of global best practices will be crucial in ensuring PRASA's long-term success and sustainability.

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APPENDIX A1 Participant Information Sheet - Interview



Research project Consent to take part in research

- I..... voluntarily agree to participate in this research study.
- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind. YES NO
- I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted. YES NO
- I have had the purpose and nature of the study explained to me in writing and I have

had the opportunity to ask questions about the study. YES NO

- I understand that participation involves... [*outline briefly in simple terms what participation in your research will involve*].
- I understand that I will not benefit directly from participating in this research. YES
NO
- I agree to my interview being audio-recorded. YES NO
- I understand that all information I provide for this study will be treated confidentially. YES NO
- I understand that in any report on the results of this research my identity will remain anonymous. This will be done by changing my name and disguising any details of my interview which may reveal my identity or the identity of people I speak about.
YES NO
- I understand that disguised extracts from my interview may be quoted in... [*list all forum in which you plan to use the data from the interview: dissertation, conference presentation, published papers etc.*].
- I understand that if I inform the researcher that myself or someone else is at risk of harm, they may have to report this to the relevant authorities – they will discuss this

with me first but may be required to report with or without my permission. YES NO

- I understand that signed consent forms and original audio recordings will be retained in [*specify location, security arrangements and who has access to data*] until [*specific relevant period – for students this will be until the exam board confirms the results of their dissertation*].
- I understand that a transcript of my interview in which all identifying information has been removed will be retained for [*specific relevant period – for students this will be two years from the date of the exam board*].
- I understand that under freedom of information legalization I am entitled to access the information I have provided at any time while it is in storage as specified above. YES NO
- I understand that I am free to contact any of the people involved in the research to seek further clarification and information. YES NO

Names, degrees, affiliations and contact details of researchers (and academic supervisors when relevant).

Signature of research participant

Signature of participant

Date

Signature of researcher

I believe the participant is giving informed consent to participate in this study

Signature of researcher

Date

Sheet - Questionnaire and consent



Good day

My name is Thembinkosi Rodney Mathaba. I am a Masters student in Business Administration (MBA) at the University of Witwatersrand, Johannesburg. My supervisor is Dr Sylvester Horvey I am conducting a research study about the impact of the Passenger Rail Agency of South Africa (PRASA) on the economy The study title is "Assessing the performance of Passenger Rail Agency of South Africa on the South African Economy ". This MBA research proposal aims to assess the performance of Passenger Rail Agency of South Africa (PRASA) and its impact on the South African economy. The primary research question investigates how PRASA's declining operational, infrastructure, and financial performance has affected local economies that rely on its passenger rail services. The study will address factors contributing to PRASA's decline, quantify the resultant economic impact on local economies, and explore turnaround strategies focused on service quality, operational efficiency, infrastructure renewal, financial sustainability, governance, and policy reforms.

I am inviting you to take part in answering a questionnaire. If you decide to take part, your participation in this research study will last about 30 minutes. During the research activity, I will need to ask for your insights which are derived from your experience and knowledge of the subject matter.

The questionnaire will be confidential and anonymous. When I share the results of the research study, I will not include your name or anything else that could identify you. With your permission, other researchers may use the data collected from this research study, but your name and any personal information will not be used or passed on.

If you decide to take part in the research study, it should be because you want to volunteer. You do not have to take part. You can stop being in the study at any time. You do not have to answer any questions if you do not want to. You will not get any direct benefits if you choose to join the research study. You will not lose any services, benefits or rights you would normally have if you decided not to join. Taking part in the research study will not cost you anything. You will not be paid for being in this research study.

The risks for this research study are no more than what happens in everyday life. This research study will be written as a research report. The report will be available on the university library website. If you would like to receive a summary of this report, I will be happy to send it to you.

If you have any questions during or afterwards about this research study, feel free to contact me or my supervisor on the details listed below. If you have any concerns or complaints about the ethical procedures of this research study, you are welcome to contact the University Human Research Ethics Committee (Non- Medical), telephone +27(0) 11 717 1408, email hrecnon-medical@wits.ac.za.

Yours sincerely,

Researcher:

Thembinkosi Rodney Mathaba, 475797@students.wits.ac.za,
0728201621/0814150841

Supervisor:

Dr Sylvester Horvey, Sylvester.horvey@wits.ac.za, 011 717 3997

Consent

I agree to participate in this research project. I understand what the study is all about.

I understand that I can volunteer to take part in this study.

I agree to direct quotations from my questionnaire may be used in the research report.

I agree that my participation will remain anonymous.

I agree that other researchers may use the information I provide in the questionnaire, but my personal information will not be used.



Yes, I consent

No, I do not consent

APPENDIX B Participants' consent form



Research project Consent to take part in research

- I..... voluntarily agree to participate in this research study.

I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind. YES NO

- I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted. YES NO
- I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study. YES NO

- I understand that participation involves... [*outline briefly in simple terms what participation in your research will involve*].
- I understand that I will not benefit directly from participating in this research. YES
NO
- I agree to my interview being audio-recorded. YES NO
- I understand that all the information I provide for this study will be treated confidentially. YES NO
- I understand that in any report on the results of this research my identity will remain anonymous. This will be done by changing my name and disguising any details of my interview which may reveal my identity or the identity of people I speak about.
YES NO
- I understand that disguised extracts from my interview may be quoted in... [*list all forum in which you plan to use the data from the interview: dissertation, conference presentation, published papers etc.*].
- I understand that if I inform the researcher that myself or someone else is at risk of harm, they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission. YES
NO
- I understand that signed consent forms and original audio recordings will be retained

in [*specify location, security arrangements and who has access to data*] until [*specific relevant period – for students this will be until the exam board confirms the results of their dissertation*].

- I understand that a transcript of my interview in which all identifying information has been removed will be retained for [*specific relevant period – for students this will be two years from the date of the exam board*].

- I understand that under freedom of information legalisation I am entitled to access the information I have provided at any time while it is in storage as specified above. YES NO
- I understand that I am free to contact any of the people involved in the research to seek further clarification and information. YES NO

Names, degrees, affiliations and contact details of researchers (and academic supervisors when relevant).

Signature of research participant

Signature of participant

Date

Signature of researcher

I believe the participant is giving informed consent to participate in this study

Signature of researcher

Date

APPENDIX C1 Interview questions

The interviewer requested a bit of personal information from the interviewee like their experience, position, qualifications etc.

1. What has been the trend in PRASA's key operational performance metrics like on-time performance, rolling stock availability, and safety incidents over the past 5 years?
2. What are the major infrastructure maintenance backlogs, theft and vandalism issues affecting PRASA's service reliability and availability?
3. How have PRASA's revenues, expenditures, and audit outcomes trended over the last 5 years? What are the major financial sustainability challenges?
4. How have key performance indicators like passenger volumes and customer satisfaction scores changed over time? What do you attribute these trends to?
5. To what extent have historical issues like lack of investment, and aging infrastructure contributed to PRASA's current challenges?
6. What was the impact of incidents like COVID-19, and lockdown-related theft on PRASA's infrastructure and operations?
7. How effective has oversight from the Department of Transport and PRASA's board been? What governance issues need resolution?
8. What systemic issues like skills gaps, procurement delays, unions have affected service delivery and turnaround efforts?
9. How has the decline in PRASA's service impacted transportation costs and economic opportunities for communities dependent on it?
10. Could you share examples of specific economic impacts on businesses, employment, or growth opportunities due to PRASA's performance issues?
11. In your view, what should be the top 3 priority areas for PRASA to focus on to improve its performance and service reliability?
12. What policy or regulatory changes could support PRASA's turnaround?
13. What role can PRASA play in supporting the economic development of local communities through improved passenger rail services?
14. Any other inputs to improve PRASA.

APPENDIX C2 Questionnaire

1. How would you rate PRASA's operational performance over the past 5 years in terms of on-time arrival, safety incidents, and passenger volumes? Provide your reflections.
2. What is your assessment of PRASA's infrastructure maintenance backlogs, vandalism and theft issues, and adequacy to meet passenger needs?
3. How would you describe PRASA's audit outcomes, revenue and expenditure, funding levels, and operational subsidies required in the past 5 years? What are the major financial sustainability issues?
4. What changes have you observed in PRASA's passenger volumes and customer satisfaction over the past 5 years? What factors influenced this?
5. What are the top 3 operational, infrastructure and financial challenges PRASA faces currently? (Prompt options: skills gaps, procurement delays, aged assets, etc.)
6. What specific events like leadership changes, COVID-19, lockdown theft have impacted PRASA's performance decline?
7. How would you rate Department of Transport oversight, board governance, and monitoring of PRASA over the past 5 years? Provide your reflections
8. What roles have HR issues, unions, and political interference played in influencing PRASA's operations?
9. What are the top reasons for PRASA's inability to provide reliable passenger rail service currently?
10. What data can you provide on increased transportation costs and lost economic opportunities due to PRASA's performance?
11. What impacts have you noticed on businesses reliant on commuter rail due to PRASA's decline?
12. Can you estimate job losses, revenue declines that can be attributed to PRASA's poor service? Provide examples of incidents you are aware of?
13. Please provide specific examples of businesses affected or opportunities lost due to PRASA that you have observed.
14. In your view, which communities have been most impacted by PRASA's performance decline and why?
15. What role can PRASA play in supporting the economic development of local communities through improved passenger rail services?

16. Any other input you can provide that can assist PRASA with its effort to turn around the business.

