A critical analysis of the use of blended finance for public infrastructure development in South Africa: The IIPSA Case Study

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by

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ABSTRACT

Public-Private Partnerships (PPPs) are a commonly used procurement strategy, adopted to advance the achievement of national developmental goals. The transactions match the efficiency of the private sector, with the large market potential of the public sector, to establish mutually beneficial partnerships and address increasingly growing public infrastructure development demand. Blended finance, as a subject on alternative financing for public infrastructure finance, has gained popularity in developing counties with poor balance sheets and deteriorating sovereign credit ratings, as an option to raise capital to address infrastructure backlogs and developmental challenges by creating commercially viable public infrastructure markets for sustainable development. However, the results on blended finance transactions and initiatives have not realised the benefits purported for the adoption of blended finance in developing countries. This study sought to critically explore the perceptions of stakeholders on the outcomes of blended finance in the Infrastructure Initiative Programme for Southern Africa (IIPSA) programme. A qualitative research method approach is utilised to explore the factors that advanced or hindered the achievement of the objectives of IIPSA, and based on their experience, further identifies CSF for the adoption of blended finance in South Africa.

The thematic analysis utilized in the study, reveals that participants do not believe that the objectives of IIPSA were met due to a Mis- alignment in expectations between the European Union and the SA stakeholders. Governance, State Capacity, DFI mandate restriction, Ambiguous communication of programme objectives, Misalignment in Expectations, Resistance to change, Performance measure, Regulatory restrictions, and an Unstable political environment constitute the nine main themes to emerge from the analysis of factors that hindered the achievement of IIPSA objectives. The CSF are organized around six main themes of Context, Institutional Capacity & Coordination, Alternatives to blended finance, Transparency, Motives, and Environment. The study recommendations are categorized at the Country level, where environmental factors are fundamentally at play, the Institutional Capacity level, where the competency factors of the implementing institutions are highlighted, and at the Project level, where the study relates these to motivation factors of the stakeholders.

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CHAPTER 1: INTRODUCTION

1.1 Background of the study

The Infrastructure Investment Programme for South Africa (IIPSA), is a blended finance facility that was piloted in May 2013 between the Government of South Africa (SA) and the European Union (EU). The EU committed to providing Official Development Aid (ODA), to the tune of €100, 000, 000 to support the achievement of the developmental goals as set out in the National Development Plan (NDP), 2013. This was to be achieved through creating funding opportunities to implement national infrastructure strategies, the National Infrastructure Plan (NIP) of SA, and the Regional Infrastructure Development Master Plan (RIDMP) of the Southern African Development Community (SADC), using infrastructure as a catalyst for economic development and job creation. This is aligned to the EU-SA Country Strategy Paper for the period 2007 to 2013 and its Multi-Annual Indicative Programme, which focuses on employment creation, regional and pan-African development, and exploring additional areas of cooperation. The Financial Agreement (FA) was signed for execution for nine years to be concluded in October 2022. The Programme Steering Committee (PSC), composed of representatives from various National Departments responsible for infrastructure delivery in the Southern African region, was responsible for the strategic management of the programme while the Development Bank of Southern Africa (DBSA) was appointed to serve as Secretariat, responsible for the day-to-day management and implementation of IIPSA, Craviolatti and van Zyl (2017).

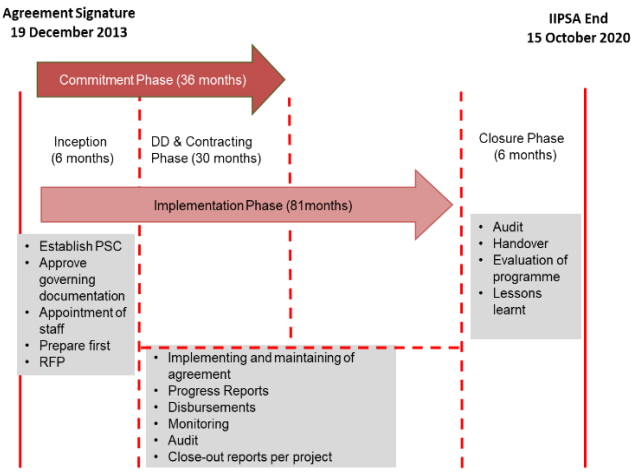

Figure 1: IIPSA Implementation Timeline, DBSA (2014)

The National Development Plan (NDP) 2030, was officially adopted by former President Jacob Zuma in February 2013. Approximately three months later, the IIPSA programme was launched to support the government in achieving the goals as set out in the NDP. As illustrated in Figure 1, the support to Southern Africa was intended to be in place for nine years. A period of thirty-six months was allocated to the establishment of the programme, identification of project, due diligence assessment, and contracting of projects. The next forty- five were allocated to operations which include actual brick and mortar activities and a further twenty-four months for programme closure and final disbursements. It is worth noting that the implementation timelines do not make provision for project preparation activities which can take as long as 5-7 years, ICA (2018), regardless of the country's level of development. This illustrates that the programme was primarily focused on providing support to projects that would be ready to go into procurement within the six months of the establishment of the programme.

To review the performance of the programme, the strategic partners of IIPSA (DBSA, the EU & the National Treasury, appointed a team of experts to conduct a Mid Term Evaluation (MTE) on IIPSA in 2017. The Terms of Reference were based on the strategic objectives of IIPSA to support the National Development Plan (NDP) and the contribution of the programme in enhancing regional economic integration in the Southern African Development Community (SADC) region.

The significant finding of the report, which is of relevance to this study, relates to the disproportionately higher financing of project preparation activities and the low use of blended finance to leverage private capital for public infrastructure investment. As at the time of the review, 75% of approved funding was for project preparation, 13% for interest rate subsidies, and 12% as direct capital grants to support projects, Craviolatti and van Zyl (2017). The concern with the reported outcomes was the lack of investment in brick and mortar activity which would provide tangible and measurable outcomes against which programme performance could be evaluated. The primary objective of a blended finance facility is to use concessional funding to attract private capital to public infrastructure projects. The report argues that, though there is appetite and potential for blended finance in the local sphere of government, the legal constraints, restrictions on borrowing, and a lack of technical capacity, limited the programmes ability to penetrate the space.

Another reason advanced for a lack of adequate brick and mortar activity to mobilize private capital, is Development Finance Institution (DFI) mandate restriction. Mandate restriction limits the participation of DFIs in certain transactions, e.g., while KfW is restricted from participating in Public-Private Partnerships (PPPs), EIB is restricted from participating in projects with minimum local content requirements. These are the basic vehicles commonly used to deploy blended finance transactions. Furthermore, the misalignment of the tenure of products offered by the DFIs and the legal framework of the local sphere of Government placed further restrictions on DFI participation. Where DFIs require longer-term lending, the public sector legal municipal framework, restricts municipal lending to 2-3-year tenure loans. However, Craviolatti and van Zyl (2017) purport that the lack of "bankable" projects was the primary reason for the programme's inability to deliver on the expected outcomes. In October 2019, the DA with the DBSA was terminated and the IIPSA programme moved into the financial close stage a year earlier than anticipated.

This report aims to identify Critical Success Factors (CSF) for the use of blended finance in South Africa, by analysing the views of experts, on factors that may have hindered or advanced the low use of financial blending versus project preparation on the IIPSA programme. The paper draws on the experience of IIPSA stakeholders and experts in the public infrastructure finance in SA, to identify CSF that SA needs to consider in the roll-out of the Infrastructure Fund of SA as announced by the President in 2019.

1.2 Problem Statement

Over the past decade, there has been a growing call from Government and Development Institutions to attract private sector interest in meeting the United Nations (UNs) Sustainable Development Goal (SDGs). The estimated $4 trillion funding gap required to provide adequate infrastructure to achieve the SDGs cannot be met by the public sector alone particularly in the poor and developing economies in Africa, where the greatest gaps are observed. This has heightened interest in financial blending as a catalytic financing solution with exponential outcomes, in the financing suite of solutions available to governments, IFC (2018). Financial blending is not purported by literature as the ultimate financing solution to the infrastructure funding shortfall, but rather as an approach that both the public and private sector can adopt to their specific context, to promote mutually beneficial partnerships and drive economic growth.

Alternatives to blended finance for public infrastructure delivery are limited, particularly in the less developed countries faced with high debt levels and constrained public purse, which tend to push the Government towards blend PPPs as a solution to address budget shortfalls. PPPs the mechanism through which blended finance is commonly deployed, provide poor and constrained economies access to private capital that can be channelled towards capital-intensive public infrastructure projects, reducing pressure on the fiscus and the associated debt burden of borrowing. Public finance can therefore be diverted to address other social and environmental development challenges that require full subsidization by the Government.

However, the results of blended finance in developing countries are found to be lacking in terms of the level of leveraging it can achieve and its impact on developmental objectives, Jimali (2004). Blended finance activities are very low in developing countries compared to more advanced economies. However, the distinction between developing and advanced economies, though significant, is not the ultimate determining factor of blended finance success as advanced economies still grapple with very significant gaps in the successful adoption of blended finance. The IFC (2018) argues that the use and outcomes of blended finance are as unique as the set of factors at play in that economy. A critical examination of these factors is critical if blended finance is to be considered for public infrastructure finance.

1.3 Research questions

1. What are stakeholders' perceptions of the outcomes of the IIPSA programme?
2. What factors do experts and stakeholders of IIPSA believe advanced or hindered the achievement of the objectives of IIPSA in SA?
3. What factors (CSF) do IIPSA stakeholders and experts believe need management in the roll-out of blended finance at a National Level such as the SA Infrastructure Fund (SA IF)?

1.4 Research objectives

In line with the research questions, this is an exploratory study that aims to: -

i. To explore stakeholder's perceptions of the outcomes of IIPSA.
ii. To examine the factors that hindered or advanced the achievement of the objectives of IIPSA in SA.

iii. To identify Critical Success Factors (CSF) for the adoption of blended finance at the national level such as in the SA IF, from the experience of IIPSA in SA.

1.5 Importance of study

Blended finance, primarily deployed through Public-Private Partnerships (PPPs), is minimally used in the delivery of public infrastructure projects in SA. As more governments in developing countries, look towards the expertise and financial capabilities of the private sector to deliver public infrastructure, the development of a body of knowledge to improve the efficacy of this type of procurement arrangement, is critical to address developmental needs. This study aims to contribute to that body of knowledge as SA embarks on rolling out a national blended facility, based on the experience of IIPSA stakeholders.

1.6 Study focus area

Though IIPSA is a programme that supports not only South Africa but the Southern African Development Community (SADC), this study will focus on the programme within the South African context only. This is because the activities of IIPSA in the SADC Region have been minimal compared to the operations in SA. The SADC region is further supported by other blending and project preparation facilities such as PIDA, African Investment Facility (AIF), and the New Partnership for Africa's Development's (NEPAD) Infrastructure Project Preparation Facility (IPPF) which dominate the space and leave little room for the participation of IIPSA.

1.7 Organization of study

The study will be organized in the following manner:

Chapter 1: Background and overview

Chapter 1 provides an overview of the IIPSA programme and its aim in Southern Africa. The chapter introduces the concept of blended finance and how it applies to the IIIPSA programme and its relevance to the South Africa public infrastructure financing landscape.

Chapter 2: Literature Review

This chapter provides the definitions of concepts and terms on blended finance and how it is applied in IIPSA and other similar programmes. It looks at the rationale for private sector participation in public infrastructure and aims to present the challenges around such procurement arrangements of PPPs and public infrastructure delivery and provides a case where blended finance has been successfully used in the energy sector in SA. A review of empirical evidence on an attempt to identify CSF associated with PPPs is investigated to guide the process of identifying CSF for the study.

Chapter 3: Research Methodology

Chapter 3 looks at the research methodology and the in-depth analysis of the method that the study uses of the study.

Chapter 4: Analysis of findings

Chapter 4 provides the analysis of data and interpretation.

Chapter 5: Summary, conclusion, and recommendations

Chapter 5 presents the summary, the conclusions of the study and makes the recommendations for consideration in the establishment of South Africa's Infrastructure Fund.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter aims to consider the concept of blended finance and its application, as a suitable alternative to conventional infrastructure financing through pure debt or fiscus funding. It pays attention to the application, theory and evolution of the Public – Private Partnership model in addressing development needs. The PPP procurement framework as the commonly used method to deploy blended finance provides the theoretical framework for the use of blended finance. The use of "blended finance" and "PPPs" is therefore treated as interchangeable concepts in this study.

As part of the conceptual literature, the review looks at the definitions of blended finance from various institutions and the South African National Treasury as the country of interest. The application of blended finance by IIPSA provides the context for the application of this financing model in this case study. The review then provides an overview of the public infrastructure financing landscape in South Africa by looking at budget allocations and public infrastructure expenditure patterns. Then presentation of challenges with the deployment of blended finance in developed and developing countries provides the backdrop for the discussion on the identification of Critical Success Factors (CSFs) for PPPs and their relevance in the deployment of blended financing models. Due to the lack of transparency with PPP transactions, the review reports on some empirical literature on PPP transactions which further highlights the challenges facing policy makers in the adoption of blended finance as an alternative to funding public infrastructure investment.

2.2 Definition of terms and concepts

2.2.1 Public- Private Partnerships (PPPs)

Osei, Kyei and Chan (2015), purport that PPPs have evolved since the 19th century through a broad spectrum of procurement arrangements between governments and the private sector. They argue that though definitions of PPPs differ, they are generally defined as the deployment of the private sector's skill and management expertise to the delivery of public infrastructure projects, through a procurement arrangement. The value proposition of these transactions is matching the efficiency of the private sector with a public need, which will yield mutually

beneficial results for both parties. Key to this arrangement is the identification and allocation of risks associated with the various phases of the project, to the party most suitable to mitigate against those risks. Financing public infrastructure development through public and private partnership arrangement, is a complex matter given the dynamic nature of infrastructure projects, their long tenure, and the number of variables to be considered by stakeholders. It involves large capital injection, complex and heavily contracted financial engineering, and risk allocation modelling. This is a function of the number of variables and stakeholders involved in these transactions, which reflects the convergence of the interest of the various stakeholders towards a common goal. The participation of private sector players is a tool beyond merely raising capital but a partnership for improved developmental outcomes. Alagidede (2012) argues that the theories of public finance management on the role of Government in the economy are rooted in the contrasting philosophies of the Libertarians and the Social Democrats. While the Libertarians philosophies of Adam Smith advocate for minimal Government intervention in the market, the Social Democrat has a more organic view of Government as responsible for the physical safety of the people. These opposing views are based on the assumptions that all individuals in the economy act rationally and that market conditions are perfect.

However, the concept of imperfect markets presents the rationale for increased Government intervention. Alagidede (2012) purports that market imperfection arises due to the level of development of the economy, where less developed economies, will have higher information gaps and Information Asymmetry's (IA) whereas the more developed economies, where market mechanisms and open market practices are more matured, will have significantly lower levels of (IA). The nature of public goods amplifies the existence of market imperfections, as the application of user fees and exclusion from consumptions are impractical to effect and private sector participation is discouraged due to uncertainty on the returns to be gained from investing in such goods. The presence of externalities presents cost and benefit computation challenges, which have price distorting effects. Less developed economies, where these market failures are more predominant, are likely to require Government to play a greater role in the economy compared to developed economies, where the market mechanism is predominant.

Faced with constrained budgets, due to high debt levels, growing public service wage bills, and significant backlogs in achieving developmental objectives, developing countries are progressively adopting market-orientated economic policies, in line with recommendations of

the Bretton Woods Institutions. Jimali (2004) relates the heightened interest of developing countries to attract private funding to finance infrastructure development to the desire of the Government to improve the outcomes of public infrastructure investment and deploy private sector skills and capabilities to address developmental goals, to create commercially viable markets. This has resulted in a proliferation of investigations and the development of Public-Private Partnerships (PPP) frameworks in developing countries, with South Africa launching the PPP unit, based in the National Treasury in 2000, Bruchez (2014).

However, PPPs are not only driven by the need of the public sector. They are also driven by the need of potential investors to grow their wealth. Public infrastructure development offers the private sector access to the public-sector markets to a private investor. Virlick (2013) uses the theory on information availability about investment opportunities, to explain the investors' investment decision-making rationale. A market that lacks information about all possible investment opportunities in the market, creates uncertainty about the return of the investment and possible losses to the investor. The potential investor requires full disclosure on the potential risk associated with the investment in their decision-making process. The ability to assess the risks involved with a project and allocating such risk to the party most able to manage the risk of the investment are critical activities for PPPs.

2.2.2 Blended Finance

The National Treasury, defines blended finance for infrastructure investment as a portion of monies from the fiscus, as support that will take different forms, including blended co-funding, capital subsidies, long-term interest rate subsidies and guarantees, and a portion from either a DFI and/or the private sector which require a revenue stream(s) to redeem debt, National Treasury (NT, 2019). Key to this definition is the deployment of risk mitigating and cost-reducing funding from the fiscus, to attract private sector investment in addressing public infrastructure projects with a focus on public sector projects that are commercially sustainable and have revenue-generating capabilities to repay the debt. These projects are predominantly in the transport, logistics, water, sanitation, and ICT sectors.

The European Union (EU) defines blending as the strategic use of a limited amount of EU financial, in the case of IIPSA, ODA, to attract financing from partner Financial Institutions and the private sector to enhance the development impact of investment projects, European Union (EU,2018). The Organization for Economic Co-operation and Development (OECD)

estimates that approximately $100 billion was leveraged from the private sector for blended finance between 2005 and 2017. This funding has gone towards an estimated 2,500 financial commitments and over 300 transactions in 800 countries including Sub- Saharan Africa. It defines blend finance as the use of catalytic capital from public or philanthropic sources to increase private sector investment in developing countries to realize the SDGs, OECD (2018). Since the agreement on a new sustainable development agenda in Addis Ababa in 2015, there is a growing interest in developing countries, to attract private sector participation in the provision of public infrastructure, World Bank (2019). Blended finance is a financial structuring approach where concessional capital, i.e. capital at below-market rates, from the public or philanthropic sector is deployed to create investment opportunities with acceptable risk-return profiles to attract private sector investment. This is achieved in two ways, either by (i) de-risking the investment or (ii) improving the risk-return profile relative to market norms.

2.2.3 Infrastructure Investment Programme for Southern Africa (IIPSA)

IIPSA aims to provide innovative financing alternatives to traditionally fiscus funded projects in the Energy, Water & Sanitation, Logistics, Transport, and Information Communication Technologies (ICT) sectors. This is to reduce constraint on public funds and address the pressing infrastructure backlogs, by supporting the Government in meeting its NDP goals through the provision of grant & concessional funding to leverage private loan funding. The programme is further intended to increase the developmental impact of the EU-SA cooperation development funding Instruments available from IIPSA for this purpose are grant funding in support of infrastructure investment, project preparation funding, loan guarantee cost financing and insurance premiums, interest rate subsidies, and technical assistance funding DBSA(2013).

Four DFIs, the Development Bank of South Africa (DBSA), the European Investment Bank (EIB), the Agence Francaise de Development (AFD), and Kreditanstalt für Wiederaufbau (KfW) were identified to be the official participating DFIs of the programme. These DFIs were tasked with mobilizing private and institutional capital towards public infrastructure projects. Though other DFIs were not restricted from participating in the programme, these DFIs would have first taken on the project pipeline generated from the programme. The strategic intent that drives the activities of IIPSA, aims to achieve financial leveraging through the participating DFIs to support strategic priority projects at a country and regional level. These DFIs were to utilize the five types of grants to structure blended finance deals, as illustrated in Table 1, below.

Table 1: EU Blending grant types, European Commission (2018)

BLENDING GRANT TYPE	...WHICH CAN ELIMINATE A KEY PROBLEM
Direct Investment Grant	Reduce cost to end users or beneficiary country by partly financing the total investment cost
Interest Rate Subsidy Grant	Reduce cost to end users or beneficiary country by reducing interest cost and/or avoiding IMF debt-ceilings (not a favoured tool for EU)
Technical Assistance Grant	To boost management, speed, project design, feasibility/preparation and quality i.e. address risks
Risk Capital	To address perceived high risk by providing funding which absorbs some of this risk and thereby lowers investors' risk perception (often with the objective of mobilising private capital)
Guarantee	To address perceived high risk by partly guaranteeing certain types of investments (often with the objective of mobilising private capital)

The product offering of IIPSA is based on principles that aim to enhance cooperation between development partners and local financiers, allowing for bigger projects with greater impact while lowering the cost of money. The programme was specifically designed to avoid creating distortions in the infrastructure financing space, but to act as a temporary catalyst, with a clearly defined exit strategy. These principles aim to guide stakeholders and participating DFIs in creating a competitive market for public infrastructure projects where project sponsors can "shop around" for the best price for capital in the private sector.

The OECD further identifies four common blended finance structures as illustrated in Figure 2 below OECD (2018).

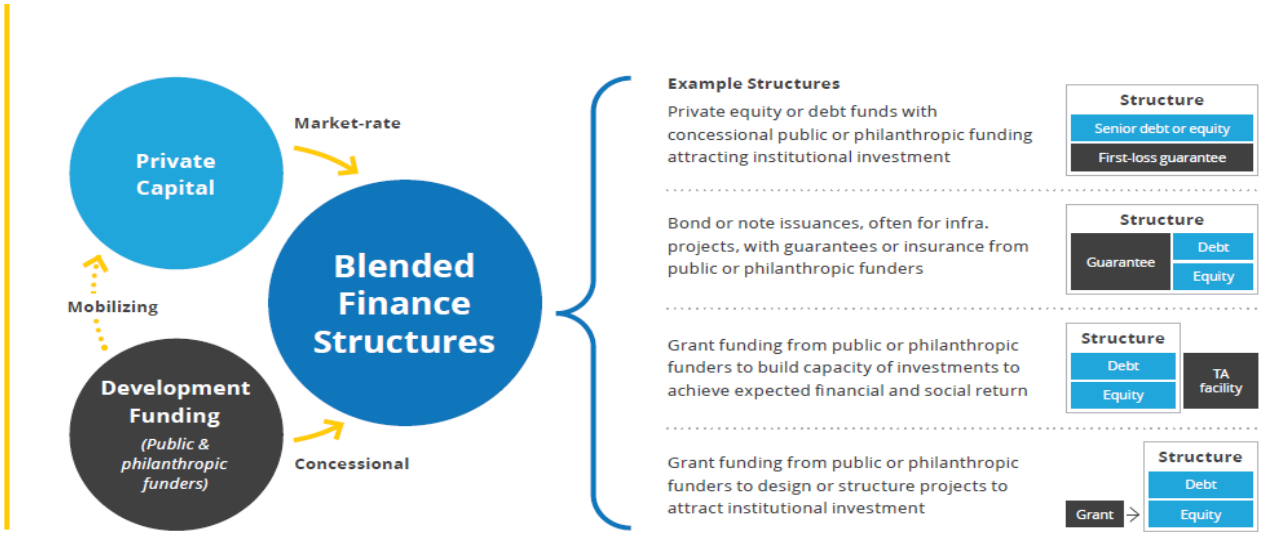

Figure 2: Blended finance structures OECD (2018)

The Public or philanthropic investors provide funds on terms below market within the capital structure (referred to as concessional capital) or guarantees or insurance on terms below market (referred to as guarantee/risk insurance). The structure could be a transaction associated with a grant-funded technical assistance facility (referred to as technical assistance funds) or a transaction design or preparation that is grant-funded (referred to as design-stage grants) OECD (2018). Concessional funding, from either the public sector or ODA, is fundamental to a blended finance transaction. The concessional portion of the funding aims to reduce the cost of capital, improve quality outcomes of blended finance projects, and reduce the risk for the potential investor. The private funding mobilized through blended finance, is driven by return-seeking capital. Notably in these structures, is the common use of concessional funding to mobilize private sector capital for development purposes, in varying proportions, creating delivery vehicles unique to a project.

The IFC advocates for the blending of commercial funding with concessional funding to bring about the developmental impact that would have otherwise not been realised through traditional forms to establish new markets for the sustainable development of infrastructure IFC (2018), a concept referred to as "Additionality". The EU defines additionality as "the positive results the EU grant achieves above and beyond what could have been achieved without the grant" EU, (2015). Though this definition is specific to the EU, it is commonly used in other literature to refer to the value proposition of blended finance. It further serves as a pre-condition that should inform if blended finance is suitable for a project or not.

Another definition offered to explain the concept of additionality links it to what is referred to as the public capital multiplier. The public capital multiplier refers to "the amount of private investment mobilized per unit of public capital deployed", Halland, Dixon, In & Sharma (2018). This is often expressed as a ratio to depict how much private sector funding was leveraged per unit of public investment, e.g. 5x or 5:1 would mean for every 1 unit of public concessional investment, 5 units of private investment were invested in the project or leveraged from the private sector. The definition of additionality in this case "refers to this private capital being additional to capital already deployed towards development objectives", Halland et al (2018). Common to both definitions is the incitement of a critical condition to achieve blended finance, the use of concessional funding only when blended finance can achieve what would otherwise

not have been achieved through traditional means, both on the financial and developmental side.

Despite the significance of additionality as a success measure of blended finance, it is often complex and at times a matter of subjective judgement. This is due to the lack of baseline information on alternative options to blended finance. There is rarely any information on what would have been the outcomes of the project had blended finance not been utilized. Where information is available, it is often limited to financial information and does not consider issues of quality and risks associated with the project which add to the cost of the project Halland et al (2018).

In contextualizing the use of blended finance, the EU sets out instances where the use of these blending grant types would be most useful at the project, institution, and country level. At the level of the institutional level, the EC promotes blending where there are/ are affordability problems. There are limited funding options and resources available to fund the project and there is Poor financial performance by the project owner that requires non- recourse to Balance Sheet lending, e.g. Public-Private Partnerships. At the country level, the EC, as well as the International Financial Corporation (IFC) promote the use of blended finance where there are higher levels of perceived risk or market failure as is the case with African economies and a need to address mis- priced externality issues which may require long term subsidies. Blended finance can be a tool to attract private sector expertise and to provide the necessary risk-reducing incentives to attract private sector participation on a project. Blending is especially encouraged, at a project level, where the projects are capital intensive, pioneering new technologies and approaches, and where there are issues beyond the sponsor's control that may affect the performance of the project, e.g., regulatory restrictions; market conditions, etc., EU (2018).

At the country level, the EU supports blending where countries are "too rich" to receive all grant funding but "too poor" for all commercial lending. The role players or actors at an institution-level are best served by blending when the financiers have constraints and specific policy objectives and beneficiaries can 'shop' for the best deal OECD (2018).
The outcomes of the IIPSA programme suggest that there is a myriad of factors to be considered before mobilizing a blended finance facility in SA. The study aims to identify these factors and

the nature of their impact on the ability of SA to deploy blending as the key strategic tool in the suite of public infrastructure financing tools, as a catalyst to economic recovery and growth.

2.3 Overview of Blended Finance in South Africa

The President of South Africa in his State of the Nation Address of 2019 made a pronouncement regarding the country's reforms to financing public infrastructure projects through the strengthening of partnerships between the public & private sector, and with local communities. As part of the package, a South African Infrastructure Fund (SA IF) is to be launched which will include a R100-billion contribution from the National Fiscus to be appropriated over ten years, NT (2019). This will be used to leverage additional resources from DFIs, Multilateral Development Banks (MDBs) as well as private lenders and investors. The fund aims to reduce the current fragmentation of spending on infrastructure and ensure more efficient and effective use of resources to develop a project pipeline for sustainable infrastructure investment. In addition, the Fund will focus on those infrastructure projects that require a "Blend of Finance" to improve financial and economic viability, and by reducing the risk associated with Public-Private Partnership (PPP) investments, NT (2019).

The President emphasizes the role of public-private partnerships in the Economic Recovery Plan of the country, launched in October 2020 in response to recession in the economy due to the national lockdowns imposed as a State of Emergency, to curb the spread of the Covid- 19 pandemic. To roll out the R100 billion, the President emphasizes the use of public-private partnerships and commits to creating an enabling environment to allow for private participation. The Economic Recovery Plan identifies state capacity, a need for supportive regulation to national policy, and creating an enabling business operating environment as cornerstones, to rebuilding the economy, Presidency (2020).

2.3.1 South Africa's infrastructure funding landscape

The National Infrastructure Plan (NIP) sets out a bold infrastructure programme to transform South Africa's economic landscape while simultaneously creating a significant number of new jobs and strengthening the delivery of basic services, in line with the NDP 2030, PICC (2012). The Plan further considers the importance of the integration of African economies and the critical need for catalytic infrastructure programmes to strengthen economic integration. The

plan outlines the projections of, Government to spend R827 billion in building new and upgrading existing infrastructure over the three years from 2013/14 – 2015/16, Presidency (2013). This was estimated to be approximately 7, 4% of the Gross Domestic Product (GDP) of the same period. At least 2, 6% lower than the required 10% annual investment in infrastructure stipulated in the NDP to achieve its intended goals, Presidency (2013). The bulk of this funding is economic infrastructure in the energy, water, sanitation, ICT, and roads. Though the level of investment in public infrastructure has dramatically increased over the past two decades, it is argued that the focus of investment in commercially viable sectors, has come at the expense of much-needed social infrastructure investment in African countries, ICA (2018).

The primary source of funding for public infrastructure investment is the public fiscus. National Treasury projects that the state will spend R815 billion on public infrastructure over the 2020/21 Medium Term Expenditure Framework (MTEF), NT (2020). This allocation is against a total projected spend of R6.13 trillion by the State. Though the allocation is significantly less than the 30% (10% per annum) as a percentage of Gross Domestic Product (GDP) investment in infrastructure required to achieve the goal of inclusive economic growth as set out in the NDP, there has been a growth in the allocation towards infrastructure over the past two decades. This has slightly tapered off by 2% in real infrastructure spend post the 2010 FIFA Soccer World Cup. This decline is predominantly attributed to budget cuts that had to be implemented at the SOE & Municipality level due to high debt levels, high debt servicing costs, and capacity constraints, NT (2020).

The National Treasury estimates that approximately 75, 1% of government infrastructure spend over the 2020 Medium Term Expenditure Framework (METF), will be towards the development of economic infrastructure by State-Owned Entities (SOEs). These entities operate in the energy, water, sanitation, and transport sector and thus have the revenue-generating capabilities required to attract private sector funding. Table 1 illustrates infrastructure expenditure patterns over seven years. The 2016/17 – 2018/19 (MTEF) figures, reflect actual expenditure on infrastructure by the State. Though minimal nominal increases in spending can be observed over this period, it is reported that 30% of the allocated budget for the same period, was surrendered back to National Treasury as unspent infrastructure funds. The lion's share of the unspent funds was surrendered by SOEs NT (2019). The high levels of

underspending on infrastructure highlight challenges beyond financial constraints and speak to the broader issues of capacity, inefficiencies, and as more prominently reported, corruption.

Table 2: Public sector infrastructure finance National Treasury (2019)

R billion	2016/17	2017/18	2018/19	2019/20 Revised estimate	2020/21	2021/22	2022/23	MTEF total
	Outcomes				Medium-term estimates			
Energy	67.0	55.1	39.9	49.7	52.4	52.4	45.3	150.0
Water and sanitation	30.8	26.8	27.1	33.5	37.0	39.6	40.6	117.1
Transport and logistics	70.9	75.4	74.4	90.5	97.8	105.4	105.1	308.3
Other economic services	14.3	17.1	13.5	13.1	11.8	12.2	12.5	36.5
Health	10.4	9.7	11.3	12.0	12.3	12.3	12.6	37.3
Education	17.8	17.6	17.2	19.5	18.7	19.7	20.7	59.1
Human settlements[1]	18.3	14.3	15.0	18.8	16.6	13.4	13.9	43.9
Other social services	10.3	11.2	10.1	10.5	10.2	9.8	10.2	30.2
Administration services[2]	10.1	9.1	7.7	9.4	10.3	11.0	11.2	32.5
Total	**249.9**	**236.3**	**216.2**	**257.0**	**267.1**	**275.9**	**272.0**	**815.0**
National departments	15.8	14.9	13.6	15.8	16.1	16.9	17.3	50.4
Provincial departments	62.6	62.3	59.5	60.8	59.9	57.1	59.9	177.0
Local government	54.4	58.8	61.0	61.7	62.3	65.7	68.7	196.8
Public entities[3]	17.1	13.2	9.6	18.7	19.0	19.6	20.6	59.2
Public-private partnerships	4.8	4.8	4.9	5.6	5.7	6.1	5.9	17.8
State-owned companies[3]	95.2	82.2	67.5	94.2	104.0	110.5	99.5	314.0
Total	**249.9**	**236.2**	**216.2**	**257.0**	**267.1**	**275.9**	**272.0**	**815.0**

Table 2 above, illustrates that, over the nine sectors, expenditure on transport infrastructure accounts for 38% of the MTEF estimated infrastructure spend while the energy sector accounts for 18% of estimated spend. The allocation support narrative by Tyson (2018) that a significant amount of investment in developing countries has been focused on revenue-generating infrastructure as a catalyst for economic growth. These have put significant pressure on the public purse as a significant portion of the investment is funded through public debt funding. The decline in estimated spend on energy as compared to the previous MTEF is because of the completion of the two Power Plants, Medupi and Kusile that were initiated by the Government in 2007 and 2008 respectively. The spending on infrastructure was significantly boosted by the Independent Power Producers Programme (IPPP) initiated by Government in 2010. The programme contributed R209 billion to the 2016/17 MTEF spend, R42, 8 billion of which was from foreign private investment, IPPP (2018).

Despite the significant investment made in economic infrastructure, the South African Institute for Civil Engineering (SAICE) reports that the condition of the country's infrastructure has deteriorated from a C^-,i.e. "Satisfactory for" in 2011, to a D^+,i.e., "At the risk of failure" in 2017. The significant investment made in roads infrastructure are predominantly visible in the national roads rating, rated at B, i.e., "Fit for the future". This has however come at the expense of investment in gravel roads which constitute 75% of the road network of the country. These

remain rated at E, i.e., “Unfit for purpose”, SAICE (2017). The conditions downgrade by SAICE is largely due to a lack of maintenance on existing infrastructure, slow progress on the implementation of major projects, and inefficiencies within the State. The lack of maintenance exacerbates the existing infrastructure funding gap and not only calls for increased investment but a need to reform the infrastructure funding and delivery landscape.

On its own, the State is incapable of addressing the infrastructure backlogs and growing the economy. In 2000 the National Treasury established a Private Public Partnership (PPP) Unit to manage the procurement of projects that involve the participation of the private sector. This Unit developed the PPP framework and continues to look at ways of improving the framework to increase the value of an investment through PPPs, Bruchez (2014). However, the South African PPP framework is complex and requires extensive amounts of time and resources to implement. There has been very limited use of the PPP model to deliver public infrastructure. Since the inception of these types of partnerships in 1998, only 33 projects with a total value of R89, 3 billion have been completed in SA. The biggest projects in terms of Rand value that have been completed under the PPP framework are primarily in the transport and office accommodation space. The Gautrain is notably the biggest and most popular PPP project undertaken in the country. This picture is unlikely to change soon as only R18, 5 billion worth of projects is expected to be implemented over the 2020 MTEF period of three years. This constitutes only 2, 2% of the estimated infrastructure expenditure of R815 billion, NT (2018).

Illustratively, blended finance and PPPs have not been as successful as they are purported to be, more so in developing countries. The experience from IIPSA on the use of blended finance in SA has highlighted several key variables to consider in the mobilization of the SA IF, to ensure that the use of public funds and Official Development Aid (ODA), which constitute the concessional portion of blended finance transactions, is directed to the appropriate interventions that will address the unique challenges that prevail in the SA economy. Kyei and Chan (2013) purport that the growing body of knowledge on PPPs is invited by the number of issues governments face in trying to implement PPP projects. This foundation has driven research on identifying Critical Success Factors (CSF) for the successful implementation of PPPs.

2.4 Challenges with blended finance

2.4.1 Blended Finance in Developing Countries

Despite the proliferation of research on PPPs, Governments worldwide are still grappling to addressing several challenges that plague PPP transactions. It is the examination of these challenges that have led to an increase in literature aimed at identifying CSF for the deployment of PPPs, Kyei and Chan (2013). These challenges vary from country to country and are continuously researched to improve the outcomes of these transactions Cui, Hope and Wang (2017).

Tyson (2018) illustrates in Figure 3 below, that though these partnerships are advocated as critical to the developmental outcomes of developing countries, the uptake by the private sector on these has been on the decline since 2012. The decline is related to the movement in interest rates between the developed and developing economies. A steady increase in interest rates since 2014 in developed economies, has shifted private sector investment back to these economies where the investment fundamentals are comparatively more advanced than those of developing countries. Investment has further shifted from public infrastructure to private projects. Of the $1.5 trillion worth of private investment made into developing countries over 2008-2017, only 20% went towards projects that are co- financed with the public sector. The figure highlights an increase in the flow of private investment into pure private projects and the associated decline of co- financed projects with the public sector. However, interest rate conditions are not the only factor affecting private investment into developing countries, several economic developmental, political, and market conditions pose a challenge to their ability to attract private investment.

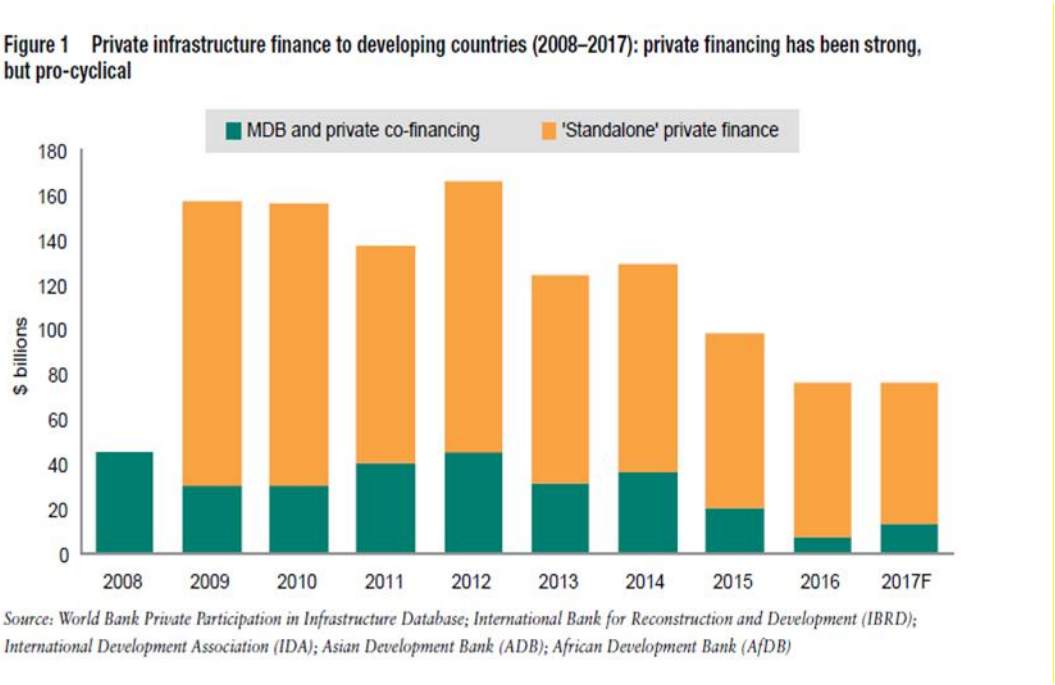

Figure 3: Private financing on infrastructure projects in developing countries Tyson (2018)

Though the potential of blended finance is more than just a mechanism to raise capital, but rather as the creation of mutually beneficial partnerships with the private sector, the capability to leverage on each unit of a donor or public investment made, remains a critical measure of successful blending. Tyson (2018), reports that the capability to leverage in developing countries is lower than what is anticipated for MDBs & DFIs. MDBs recorded an average of 0.7:1 against an expected 4:1 ratio required for infrastructure investment, while DFIs recorded a 1.5:1 ratio against an expected 6:1 ratio over 2008-2017. This low capital mobilization level is linked to three fundamental factors, the lack of bankable projects, the political and macroeconomic risk, and financial market flexibility

2.4.2 Project preparation and developing a project pipeline for sustainable private sector investment

The lack of bankable infrastructure projects in developing countries is well documented in the infrastructure finance literature, as one of the key drivers of low capital mobilization levels. In June 2020, the President of South Africa launched the Sustainable Infrastructure Development Symposium (SIDS). The initiative is an effort by the Government to attract private sector investment in the delivery of public infrastructure. In the panel discussions, it was widely accepted that without a credible project pipeline, the country would not be effective in attracting

the level of funding required to address the infrastructure needs for development. The development of a project pipeline requires substantial investment in the development of "bankable" projects that have reached financial close and can attract investors. This shortcoming was further related to a lack of investment in project preparation by the public and private sector, Presidency (2020).

A 2018 survey by the Sustainable Development Investment Partnership (SDIP) on Project Preparation and Development Capital in Africa and the Associational of South East Asia (ASEAN) revealed that out of the 47 project preparation facilities surveyed, there was an inclination to support a project at the later stages of project development with 41% of the support provided at the financing and post- financing stages. Only 16% spent was for support at pre- feasibility and 24% at the feasibility stage. The survey further showed that 67% of the project preparation offered by these institutions is for Public-Private Partnerships, 29% for projects developed exclusively by the private sector, and only 4% focused exclusively on projects developed by the public sector. The findings of the survey conclude that early stages of project preparation are underfunded in support of previous reports on project preparation funding, DBSA (2019). While there seems to be capital available to invest in public infrastructure from donors and the private sector, the ability of the state to absorb the investment is lacking.

Corrigan (2017) finds that the private sector is reluctant to participate in the early development stages of a project due to the high capital requirements, estimated at between 5% - 10 % of the capital expenditure. This investment presents a higher risk to the potential investor as it has no tangible returns and even the minimal return required, is complex to compute. Figure 3 below illustrates the various stages in the project preparation process, referred to as the project development lifecycle, as documented by the Infrastructure Consortium for Africa (ICA) for Africa's infrastructure development.

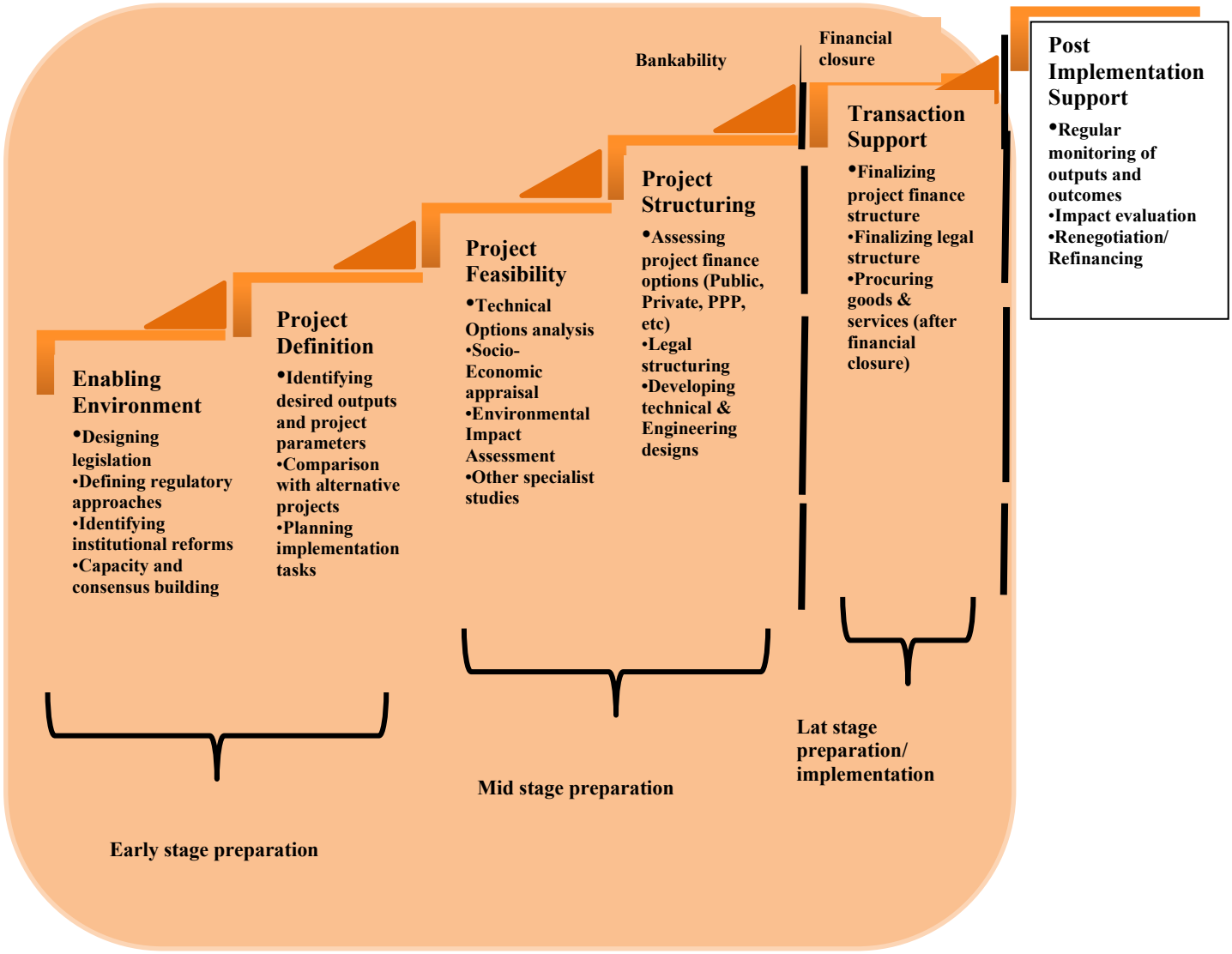

Figure 4: Project Development Lifecycle, ICA (2014)

The process is split into three stages, the early, mid, and late stages of project preparation. These are further grouped into six categories that represent the activities that should be performed at each stage, with the sixth being the project implementation stage. An analysis of the 17 Project Preparation Facilities (PPFs) operating in Africa, highlights a focus on financing the mid to late stages of the project development lifecycle, while the financing of early project development is carried by the public sector and development support, ICA (2014). A lack of capacity, coupled with constrained budgets in the public sector, has severely crippled the ability of African countries to develop "bankable" project pipelines. The lack of participation from PPFs in the early stages of the project development lifecycle, and the capacity constraints of government, have manifested themselves in a decline in infrastructure commitments to SA by ICA member states for the 2016 & 2017 periods. Commitments in SA have declined from $966 billion in

2016 to $495 billion in 2017. Though total commitments remained relatively constant at $8.6 billion, they did not meet the required $11.7 billion required primarily due to a lack of "bankable" projects, ICA (2018).

Though progress has been made towards closing the gap in project preparation funding through the establishment of dedicated PPFs in Africa, the fundamental consensus in the literature is the lack of available "bankable" projects as an impediment to deploying blended finance. Of the total commitments of $19, 7 billion made in public infrastructure investment by ICA, only 9, 9% of these are towards blended transactions while 72% of commitments are from loans. Though the benefits of blended finance are fundamentally more development-based than loans, the complexity of preparing bankable projects relies heavily on the capacity of the public sector to illicit confidence from the private sector to invest in these projects, ICA (2018).

Rondinelli (1976), though recognizing the financing gap in project preparation, purports that it is not necessarily funding that is the fundamental challenge in the delivery of public infrastructure, but rather the lack of technical skills in the public sector to prepare projects that are attractive to the private sector. He relates this lack of capacity to the available plethora of literature and emphasis on economic and financial analysis, network planning and work scheduling in project management, and a lack of emphasis on the more complex matters of project identification, preparation, feasibility analysis, design, appraisal, approval, organization, operation, control, evaluation and follow up as illustrated in Figure 3.

2.4.3 Political and Macroeconomic risk

Uncertainty regarding changes in macroeconomic fundamentals, legislation, and political stability, raise the risk premium required to attract private investment. Developing economies are typically characterized by high political risk, which has resulted in relatively higher costs to raise capital in the financial markets and other financial institutions. This has resulted in high debt servicing costs, which have constrained public budgets. Though the risk can be managed through financial instruments such as hedging, insurance, or guarantees, these are not favoured by investors due to their complexity and associated high costs, Tyson (2018). As an asset class, infrastructure investment competes with other asset classes to attract finance. The complexity of investing in infrastructure-related stocks and bonds makes them less desirable to the potential investor. Some investors adopt an avoidance approach to any investment in assets that have

inherent hedges, Walter (2014). This rules out any potential investment from the risk-averse investor. Political risk also covers the risk of changes in legislation. Frequent changes in legislation, or a lack of sufficient legislation to protect the interest of the private investor, will deter a potential investor from investing in the local economy. Changes in legislation are viewed in light of the political stability and ability to enforce. The sovereign credit rating downgrades of the SA Government by Moody in November 2020 were partially attributed to rising political tension and political interference in the economy, Moody's (2020). The ability to enforce legislation, on the other hand, rests on the strength of the institutional and governance arrangements of a country, Madura (2008).

The risk-return profile of a potential investor will determine the level of risk such an investor is willing to take and the risk premium they command for accepting such risk. A change in the macroeconomic fundamentals can move investment away from a country. Madura (2008) argues that interest rates, inflation, taxes, income levels, etc., will affect the investor's risk-return profile for investment. Governments have at their disposal, fiscal and monetary policies to use to maintain a conducive economic and business environment to lower the risk and maximize returns for the potential investor.

2.4.4 Financial Markets

Illiquid financial markets in developing economies offer limited flexibility and compatibility in their product offering to the investor's risk-return requirement. The lack of compatibility particularly affects potential investment in long-term infrastructure projects as an asset class. These markets favour short-term investment opportunities and have successfully attracted investment in the energy sectors. A constrained fiscus, high debt levels, and credit downgrades have heightened the call from the governments for institutional investors to invest in infrastructure as an asset class. However, due to their long-term nature, investment in infrastructure as an asset class, requires high capital buffers to be held against the project in terms of Solvency II, Tyson (2018).

By their definition, PPPs are aimed at delivering public infrastructure through a procurement arrangement that is mutually beneficial for the public and private sector. However, literature reviewing the performance outcomes of PPPs has largely focused on the identification of CSF to improve the quality of the outcomes of blended finance transactions. However, Khang and

Moe (2008) argue that there are gaps in the literature that fails to cover the performance of PPPs in a manner that allows for reviewing their effectiveness in achieving developmental outcomes. Though there is progress being made in developing, scientific ways in which to quantify the outcomes of PPPs, the lack of data collected and available on PPPs, the presence of externalities, and the lack of suitable models to capture the full cost and benefit of PPPs, present challenges in computing the actual development impact of PPPs against the cost of the transactions. This has raised the issue of transparency on these transactions, as a major critique for their use in developing countries.

2.5 Critical Success Factors for PPPs

In an effort by government's around the world to improve the outcomes of PPPs, the focus of research on PPPs has increasingly sought to determine the CSF required to implement PPPs. CSF is defined as those key areas of activity that are necessary to manage, to advance favourable outcomes for PPPs, Osie, Kyei and Chan (2015). They purport that the examination of CSF benefits developing economies relatively more, compared to more developed economies who pose the capabilities to mitigate the risk associated with long-term PPP transactions. Developing economies face more obstacles which relate to constrained financial resources, public sector inefficiencies, uncertainties in the contractual environment due to a weaker regulatory and policy implementation environment, weak political will, administrative bottlenecks, and capacity deficiencies in both the private and public sectors of those economies.

2.5.1 Conceptual Framework for CSF

Osei, Kyei and Chan (2015), define CSF as those activities that require management to ensure the achievement of a goal. The number of factors that affect PPPs is varied, the factors are interdependent and complex to compute with sufficient accuracy to manage comprehensively. The OECD states that even in developed markets where PPP frameworks are more advanced, those economies grapple with challenges in the implementation of PPPs. As a guide, the OECD developed three clusters of CSFs that require careful consideration and management in the deployment of PPPs, i.e., competency, motivation, and enabling environment, OECD (2018).
Attracting private sector capital to finance public sector infrastructure projects, requires a critical assessment of key variables that affect the competency required for the project, the

motivation of the stakeholders, and the regulatory or political, market, and economic environment of the recipient country.

- **Competency**

The dynamism and complexity of project finance require a set of well-developed skills at the individual and the institutional level. The level of skill required to plan and execute these transactions is both multifaceted and extensive. To deploy such skills to a public-private financed project, blending facilities offer Technical Assistance grants. However, this external capacity should not be viewed as a replacement or substitution for the competency required within public institutions. Jimali (2004) emphasizes the need for government to set, monitor, and maintain delivery standards with the ultimate objective being, to meet the needs of the beneficiaries in the most efficient manner. The development and growth of the Government's institutional capacity should therefore match the requirements of its roles and responsibilities in public-private partnerships, be it as a regulator or a partner. Attracting the requisite level of skill to public projects significantly reduces the risk associated with cost overruns, time delays, and quality. These for the primary basis for the measurement of project performance.

- **Motivation**

Fundamentally, the private and public sectors have contrastingly different objectives for their existence. While the other seeks to accumulate wealth and is primarily self- focused, the other seeks to enhance the welfare of others. This fundamental difference is, however, the basic motivation for the existence of public-private partnerships. The collaborative use of the efficiency of the private sector as a profit seeker and the revenue potential of public infrastructure is the premise for these partnerships, Jimali (2004). Of equal importance to these partnerships, is the collaborative use of the partners' strengths towards the achievement of a common goal. The interest of stakeholders involved, in many cases, will differ and in some cases, be contrasting. However, Jimali (2004), argues that pursuing a clearly articulated and defined common goal, remains the foundation of ensuring that stakeholders understand and concede to project performance measures to avoid conflicting views of project performance. The common goal is not limited to the construction, maintenance, or operations of the infrastructure, but includes developmental goals as set out in the strategic objective of the partnership. These include job creation, empowerment of disenfranchised, the creation of commercially sustainable markets, etc. It is recognized that some of the developmental objectives may be complex or impractical to compute and therefore set as project objectives.

However, to minimize the divergence of conflicting views, the cost-benefit analysis of PPP projects should consider the presence of positive and negative externalities, Gatti (2008).

- **Enabling environment**

Khang and Moe (2008), concur with various literature, that any partnership between the public and private sector, without the necessary political support or commitment, has a higher risk of failure. Partnerships that are based on trust, are primary for the achievement of the common goal by all stakeholders. Due to the high risks associated with the tenure of public infrastructure projects, the potential expropriation of project revenues, as well as potential market distortionary effects of privately financed public infrastructure projects, trust as a political risk mitigation strategy, creates a mutually beneficial investment environment.

From a 2016 survey conducted by the World Economic Forum (WEF), Tyson (2018) reports that as much as 65% of institutional investors, used a risk avoidance strategy towards assets with inherent political hedges, and these are commonly used political risk hedging instruments in developing economies. With limited financial market capabilities, developing economies offer limited opportunities for portfolio diversification, which is primary to the risk mitigation strategy of a private investor, Brafu-Isaidoo and Biekpe (2011). These present higher risk-mitigating costs to the potential investor.

The effects of a change in regulations, are relatively more complex to mitigate due to a lack of appropriate financial instruments to mitigate against such risk. However, Jamali (2004) finds that regulatory systems that have protection from expropriation, arbitration of commercial disputes, respect for contract agreements, and lower potentials of losing capital or profits, resulting in improved project outcomes.

Blending is not advocated as a single bullet solution for general application to address the financing needs of infrastructure development regardless of economic and market conditions. It will most likely be unsuccessful if used without consideration of the CSF at play in those economies that require management. Linked to the success factors, the EU, and the IFC are of the view that blended finance will only have the desired development impact if used in cases where there are market-distorting factors that can create dependence of the private sector on subsidies from the fiscus, IFC (2018). This is predominantly evident in projects where revenue collection projections are higher than actual revenue collected. This occurs in cases where there are long-term structural issues where permanent subsidies are called for, or the solution relates

to inadequate policies where reforms are needed. Projects, where the public benefit of the project exceeds the return to the investor, are advocated as most suitable for blended finance as they consider the presence of negative or positive externalities and affordability constraints or information deficiencies, IFC (2018).

In the pursuit of commercially sustainable infrastructure markets, the IFC advocates for concessionality to be minimized as much as possible to help develop and encourage future sustainable commercial markets, IFC (2018). This can be achieved if blended finance is only utilized to address transitory challenges in the marketplace, where a push is needed for the private sector to reach a stage where concessional funds are not needed, IFC (2018). Therefore, blended finance is not the best solution to address externalities that require permanent subsidies. They argue that a move towards commercially sustainable projects that can attract private sector investment without concessional funding should be the ultimate developmental goal of using the blended finance structuring approach, IFC (2018).

2.6 Empirical literature on Critical Success Factors

The nexus between the measurement of the performance of PPPs to meet their objective and the identification and management of CSF is more than just an arbitrarily separate concept. The CSF has a direct impact on the successful implementation of PPPs. However, due to a lack of transparency in blended finance transactions, information on the outcomes of blended finance transactions is not readily available. This has resulted in a gap in the literature on the performance of blended finance, primarily deployed through public-private partnership arrangements, Jimali (2004). This complicates the ability to measure the success or failure of private-public finance transactions with certainty and thereby limits the ability to identify CSF to enhance the adoption of the procurement framework in developing countries, where it is most required. Khang and Moe (2008) purport that the identification of critical success factors for international development projects, funded through concessional ODA support, enables stakeholders to manage their performance and ability to diagnose challenges from the early development stages of a project. However, a lack of empirical studies on the success or failures of public-private partnerships in OECD countries minimizes their ability to utilize and capitalize on these partnerships.

A study by Yurdakul, Kamsak and Öztürk (2021), examines the impact of macroeconomic factors on PPPs investments. It investigates the relationship between macroeconomic fundamentals such as inflation, Foreign Direct Investment (FDI), population size, money supply, on the level of PPP activity in 137 developing economies. The study finds that macroeconomic instability, driven by poor management of public funds has pushed governments in developing countries to deploy PPPs for public infrastructure projects. Despite the negative motive for pursuing PPPs in developing countries, inflation and debt are found to have no significant influence on the level of PPP activity. An increase in money supply in an economy and population growth, are reported positively correlated with PPP activity. Money supply makes the cost of investment cheaper to the investor and population growth drives the need for infrastructure. The negative correlation between FDI and PPPs is firstly related to the portfolio investment choice of the investor, who many choose to invest in short term assets instead of long term infrastructure assets with higher risks, and secondly to the structural capacity of the institution that enables FDI. Primary to their findings, Yurdakul, Kamsak and Öztürk (2021), relate the appetite for investing in public infrastructure in developing countries to their risk profile. They argue that the effect of political risk on macroeconomic stability outweighs the effect that changes in the macroeconomic fundamentals, alone, have on PPP activity levels in an economy.

In another study aimed at identifying the CSF for PPPs at the local government level in South Korea by Bae and Joo (2016), relates the increased demand for PPPs in developing countries to budget constraints, growing population, and political interests. Using the case of the Seoul Metropolitan Area (SMA) & the Light Rail Transit & Metroline, Bae and Joo (2016) illustrate how the political and institutional arrangements affect the success of PPPs in the local government sphere of South Korea. The two mega rail projects are reported to have been poorly structured, giving the private sector more power in the transactions. The private sector was able to transfer the bulk of the risk associated with the projects' operation and maintenance to local governments that have limited resources to manage these risks. Besides the institutional and political interference challenges reported for the two projects, the misalignment of objectives between the public and private sector were not aligned. They further neglected to consider the objectives of the beneficiaries of the projects. The private sector walked away from the projects with double-digit returns, whereas the state was left with the responsibility of dealing with cost overruns and other inefficiencies that occurred from the project.

2.7 Arguments against blended finance

The South African REIPPP is a good example of how blended finance can be used within the appropriate context to reduce risk and attract private sector participation. However, the outcomes of blended finance have been found to vary between Developing Countries, Middle-Income Countries (MICs), and Low-Income Countries (LICs). Attridge and Engen (2019) based on the findings of an OECD mobilization survey on blended finance transactions between 2012- 2015, report lower leverage ratios achieved in LICs and MICs) compared to Developing Countries. For each $1 of Multilateral Development Banks (MDBs) and Development Financial Institutions (DFIs) invested, on average $0.75 of private finance was leveraged for developing countries, but this falls to $0.37 for LICs and MICs. They highlight that this falls short of the commonly referred to "billions to trillion" leveraging ability of blended finance. And should rather realistically restated as "billions to billions" or even less in LICs. This relates to the cost of blended finance being higher in LICs than in other countries which places a significant debt burden on the public purse. Around 57% of the cost of blended finance is borne by the public sector and the figure rises to 73% in LICs. LICs may therefore require higher levels of subsidies, reducing the market commercialization potentials of public sector infrastructure provision,

Risk mitigating financial instruments offered by MDBs & DFIs are not fit for purpose in LICs and MICs with low or no credit ratings. The pressure of maintaining credited rating by MDBs and the requirement for DFIs to be financially sustainable, reduce their risk appetite to provide risk-mitigating instruments that are attractive to the investor and compensate for the higher risk associated with an investment in the early development stages of a project. While the focus is on maintaining good credit score ratings and commercial sustainability, the OECD (2015) argues for DFIs & MDBs to utilize their AAA credit score ratings and provide longer tenor instruments and issue higher risk debt instruments such as subordinated or mezzanine debt, particularly for the early-stage development of projects. This lack of investment has resulted in poor project pipelines in developing countries.

The data on blended finance transactions is not readily available or open to scrutiny by all stakeholders in their broader definition. There is generally a lack of transparency and accountability as there is no common official blended finance framework from which to judge the outcomes of blended finance transactions. This has elicited scepticism and mistrust around

blended finance and most significantly the interest of the private sector in such arrangements, Attridge and Engen (2019).

The strongest arguments against blended finance for public infrastructure projects are related to the cost of capital of the transactions and their development impact in lesser developed economies. Jimali (2008) argues that the drive to adopt market-orientated policy reforms by United Nations institutions to attract private investment requires adaptation to the economic, political, and market conditions prevalent in lesser developed economies if public-private partnerships are to be used to achieve development goals. The current approach advocated by the likes of the International Monetary Fund (IMF) and the World Bank (WB) is viewed as somewhat coercive and promotes market reforms at the expense of achieving development goals. The advocating of minimal concessional funding in blended transactions to promote commercially sustainable markets results in a distortion of prices in markets where permanent subsidies are required to deal with structural matters. In PPP transactions, this could lead to a lack of incentive to collect revenue from users by a private operator as the shortfall would be subsidised from the public purse.

The cost of capital in developing countries is primarily driven by Credit Rating's Agencies (CRAs). The ICA (2018) argues that the biggest impediment to infrastructure delivery in Africa is poor sovereign credit ratings-driven primarily by uncreditworthy public utility providers. Solwa (2019) has found that the cost of capital remains high in developing countries though the macroeconomic fundamentals are higher than what the CRA suggests in their ratings. This he links to the low use of guarantees taken up to mitigate against the risk of default or other eventualities that are mitigated against in blended finance transactions. This leads to question the basis of the CRAs rating criteria or rather application in various countries. Further credit downgrades for SA to below investment status announced by Fitch & Moody's in November 2020, will further exacerbate the cost of borrowing towards blended finance transactions. Though the cost of capital may be higher in developing countries, the higher rates of return make these markets attractive to foreign investors, Delloite (2017). However, low mobilization and the higher cost of blended finance transactions in LICs & MICs, suggest that the higher interest rates are not sufficient to compensate the potential investor.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This study aims to identify Critical Success Factors (CSF) for the deployment of blended finance for public infrastructure development in SA that require management or resolving when deploying blended finance as a key tool to roll out the SA IF. These factors are identified based on the experience of industry experts & IIPSA stakeholders. Leedy and Omrod, (2014: 147) refer to this as a phenomenological study where the study attempts to understand people's perceptions, perspectives, and understanding of a particular situation". A phenomenological provides use of quotations to provide multiple perspectives to create a new perspective from the researcher's understanding.

3.2 Research Design

Creswell purports that a research approach is made up of plans and procedures for research, which cover all the steps from assumptions to detailed methods for data collection, analysis, and interpretation, Creswell (2014). He distinguishes between three types of research approaches, the qualitative, the quantitative, and the mixed method, Creswell (2014). Flick (2007), describes qualitative research as a research approach that aims to provide the understanding of the "outside world" which can be a social phenomenon or how people view the world around them. It aims to unpack how the participants interpret their reality, from the researchers' perspective. This study used the qualitative research approach, as the commonly used method of researching to analyse individual or group experiences in their natural setting. Furthermore, the assessment of the research outcomes was narrative and not based on easily or reasonably quantifiable data. In qualitative research, the researchers' primary source information, is collected from analysing recorded information in the script, recordings, text, images, etc. The findings of this study are based on the qualitative assessment of a structured Interview Survey composed of open-ended questions, (see Appendix A) administered to industry experts in public infrastructure finance and stakeholders of IIPSA.

The study is phenomenological as it aims to identify CSF from the recorded experience of stakeholders in IIPSA and public infrastructure financiers. By approaching the study without a pre-determined list of themes, to analyse the data, the researcher adopted thematic analysis,

allowing for themes to emanate from the analysis of the data. This is to eliminate researcher bias due to the closeness of the researcher with the subject matter.

The study was limited to the assessment of the experience with IIPSA as a blended finance facility and does not extend to an assessment of other similar facilities in SA, therefore a Case Study research strategy most suitably defines the study. Harrison, Birks and Mills (2017), purport that a Case Study research focuses more on the complexity of the subject and places less emphasis on the design of the study, however, a Case Study is an effective methodology to investigate and understand complex issues in real-world settings which are characteristic of the issues around public infrastructure finance and the participation of the private sector. However, the importance of a well-articulated study design is important for qualitative research as the ability to reproduce the study and confirm the outcomes is subjective to the interpretation of the researcher as the unit of analysis.

3.3 Data sampling

The use of a Case Study reduces the population size from which the research sample was obtained. A population is defined as all elements (individuals, objects, or events) that meet the sample criteria for inclusion in the study, Burns and Grove (1993: 779). In the case of this study, the population bears the following characteristics: -

- Individuals in the DBSA directly involved in the administration of IIPSA.
- Individuals in the National Treasury responsible for development aid management.
- Individuals in the National Treasury responsible for asset and liabilities management.
- Individuals considered to be industry experts on infrastructure financing in the public sector.
- Individuals from DFIs participating in IIPSA and Project Preparation Facilities (PPFs).
- Individuals from National Government Departments involved in public infrastructure delivery.
- Individuals from the Presidency involved in the oversight of infrastructure delivery.

The population size included the following: -

- Individuals the public sector and state support entities, responsible for public infrastructure financing.

 Individuals from the private sector with experience in public-private partnerships for public infrastructure.
 Individuals from the EU responsible for the monitoring of the implementation of IIPSA.

Due to a lack of data on the population, population size could not be established and was estimated to be around +250/- 500. A sample represents a subset of the population and bears the characteristics of the population, Diamantopoulos and Schlegenmilch (2000). A sample of at least 14 experts was expected to emanate from the population, given time and availability constraints.

Non-probability purposive sampling is described as a procedure where the researcher selects a sample based on his/ her judgment about some appropriate characteristic required of the sample members or participants in a study, Serumaga-Zake (2014). In this study, the sample was selected from a list of individuals responsible for public infrastructure financing in the public sector, DFIs, and stakeholders of IIPSA. To avoid institutional sensitivities and ensure that the participants understood that the research was conducted for personal development and not linked to any institution or their position in IIPSA, a letter of introduction setting out the terms of the participation in the research, clearly indicated the capacity under which the researcher is conducting the research, see Appendix A. The sample was further based on the researcher's judgment of the strategic role participants play in IIPSA or in public infrastructure finance, to ensure a deeper level of discussion to improve the validity of the identification of CSF, is achieved. Due to time constraints, the size of the population, and limited resources, participants were approached based on their availability.

The research was intended to be conducted for three months in 2020. However, due to the impact of the national lockdown imposed on SA since March 2020, in response to the outbreak of the Covid-19 pandemic, the research was conducted over 6 months towards the last quarter of the 2020 and first quarter 2021 calendar years, within the boundaries of South Africa.

3.4 Data collection

Thomas Lee (2011), purports that the most used and most effective instrument often used in qualitative research is an interview. The study instrument in this report is an open-ended structured interview, where an interview is based on the same set of questions to all participants but allows the researcher the opportunity to probe participants on responses to deepen the

discussion and solicit new insight. Braun and Clarke (2006). The open-ended questionnaire affords the research insight into concepts that may not have been aware of which enrich the responses to the questions. The data collection process involves transcribing interview responses into a meaningful analysis based on trends in the data. This process is referred to as data coding, where concepts, words, phrases are labelled to prepare the data for analysis, Nishishiba, Jones and Kraner (2014).

The Part A of the questionnaire (see Appendix B) was developed to collect nominal data of the profile of the participant. As the study claims to present the views of experts, this section of the questionnaire was designed to collect data on the level of expertise of the participants. The nominal data relates to the qualification and their level of academic and professional progression. The researcher further used the Likert scale to assess the knowledge levels of participants on IIPSA and public infrastructure finance, where it requires the participants to rate their level of knowledge on both subject matters from weak to expert level. Part B of the survey aims to collect data on the participants' views on factors that are related to outcomes of the programme by assessing their understanding of the performance of the programme. This section aims to answer the "why" for the IIPSA programme outcomes. Part C of the research instrument aims to solicit the opinion of the participant on the CSF that requires management to advance blended finance at a national level such as the SA IF, based on the participants' experience from IIPSA.

The data was collected for two months in December 2020 and January 2021. Email invitations were sent to potential participants in the population sample. These included a Letter of Introduction, see Appendix A, which outlined the reasons for the study as well as Appendix C, a Letter of Consent to be signed by both the researcher and the participants. The questionnaire was administered via virtual meeting platforms such as Zoom and Microsoft Team. The researcher was unable to conduct face- to face interviews due to cost, time, and movement restrictions put in place due to the prevailing Covid-19 national lockdown. The interview session was scheduled for 45 minutes per session, per individual. However, due to availability challenges, one of the interviews was conducted with two participants during a 45 minutes' session, participants P10 &P11. Questionnaires were sent out to 17 potential participants, out of whom, 13 responded and subsequently participated in the study. With the consent of the participants, the interviews were recorded as part of the data collection process, in addition to capturing handwritten notes.

3.5 Data analysis

The process of analysing qualitative data is slightly more complex than quantitative analysis. The researcher in a quantitative approach sets out what they will be measuring before the data is collected. On the contrary, the researcher in a qualitative study relies on the data to determine what needs to be measured, Nishishiba, Jones and Kraner (2014). What is measured, are themes that emerge from the data based on factors of importance as determined by the researcher. This could be based on the frequency of the occurrence of a concept, word, phrases, or any other factor that the researcher determines to be of significance to the study.

To covert theoretical data into organized themes and presented in a logical manner that provides insight on the CSF for blended finance, the researcher adopted an inductive method to analyse the data without bringing in their pre- conception of the specific codes they expect to see in the data. Using Content Analysis, codes are identified in the data, be they concepts or words that appear frequently or are viewed as significant to the study based on the judgement of the researcher. These are flagged and labelled. The researcher combined and merged similar concepts or codes that emerged from the Content Analysis to conduct a Thematic Analysis to illustrate emerging themes that are used to describe the participants' perceptions of the factors that can be attributed to the outcomes of IIPSA and CSF for the roll-out of SA IF. Nishishiba, Jones and Kraner (2014), describe six commonly used methods of data analysis that describe the process followed in this study

1. Getting familiar with the data. This involved reading the scripted notes, listening to recordings of the interviews, and transcribing each set of notes into a clear readable format.
2. Labelling or "coding" the data into categories driven by the frequency of occurrence of words, phrases, and concepts. This process involved searching for themes.
3. Deciding which codes are important based on the research question and the topic under study. This involved identifying themes that would advance the achievement of the objectives of the study and eliminating those that are not of relevance to the study.
4. Reviewing of themes and deciding which are the most relevant and how they are connected.
5. Naming the themes and arranging them in order of importance to the study. This involved deciding how the themes can be presented.

6. Presenting the results of the thematic analysis. This involved presenting the views of the participants within the boundaries of the themes identified.

The steps followed in analysing the data:

As the research is exploratory, the headings above may be amended to accommodate new knowledge gained from the data collection process.

3.6 Reliability and Validity

Reliability is a measure of the consistency in the results of a study, if the study was to be repeated, Golafshani (2003). It refers to the quality of the research instrument, in terms of being able to produce similar results if tested under similar conditions and responsiveness to the research questions. The reliability of the research questionnaire is tested by comparing the themes that emerged from the sections that related to the performance of IIPSA against those that emerged from the identification of CSF for the roll-out of the SA IF. Similar themes were merged, and new themes were linked to other concepts from the IIPSA discussion. To increase the reliability of the data collection process was conducted under the same standard conditions, where 45 minutes' interview sessions were set with participants on virtual platforms. As a form of introduction, all participants were briefed on the reasons for conducting the study, the method of data collection, their rights, and the confidential issues, in addition to the letters of introduction sent to each potential participant.

Validity measures the accuracy of the data collected. The data was collected through handwritten notes and voice recordings to enhance the data analysis process and verification of data from multiple sources to corroborate the validity of the findings

CHAPTER 4: RESEARCH FINDINGS

4.1 Introduction

This section of the paper aims to present the findings of the data analysis process. The first section of the research instrument was structured to assess the expertise level of the participants on public infrastructure finance and knowledge of IIPSA. The second section of the questionnaire is aimed at assessing what the participants' perception of IIPSA objectives were, and if these were achieved. This section further request participants to provide factors that in their opinion, can be attributed to the performance of IIPSA in order to identify CSF for IIPSA. The final section was aimed at soliciting the opinions of experts on the CSF they would recommend to the SA Government to advance the roll-out of SA IF.

4.2 Participants profile

Of the thirteen respondents who participated in the study, seven were from the Government sector, represented by National Treasury and Infrastructure South Africa, based in the Presidency, five were from two DFIs, the DBSA & KfW. Due to availability challenges, the study does not include the views of the EU as none of the approached three potential participants could participate in the study. One participant has spent thirty years in public infrastructure financing as a Chartered Accountant as has recently moved into the Entrepreneurial space of public infrastructure finance. The participant is pioneering new ideas for financing infrastructure looking at more community-based participation and drawing from the experience of countries such as Shanghai, where such investment models have been successfully deployed. The average number of years in the infrastructure finance space is thirteen years with the least experience being one year and the most being thirty years, see Appendix D.

Table 3: Summary of participants' profile (Source: From Research data)

Sector	Number of participants
Government	7
DFIs	5
Private	1
Total	13

The research participants had varying degrees of knowledge about IIPSA and blended finance. This is attributed to some participants not having been exposed to the programme or having joined the programme at a late stage as P12 explains their involvement with the programme.

Part A of the research instrument was aimed at assessing the expertise level of the participants, as the primary characteristic of the research sample. All participants possess an undergraduate degree. Of the thirteen participants, six, hold master's degrees in the fields of Development Finance, Engineering, and Economics. The highest qualification of the experts is a PhD in Economics. Two of the participants are registered Chattered Accountants and collectively have 39 years' experience in the public finance space, the lion's share of which is in project preparation and evaluation. Nine of the participants rated themselves as experts on the Likert scale, set to determine their assessment of knowledge levels on public infrastructure financing and IIPSA. Three of the experts rated their knowledge levels on public infrastructure finance as they have limited exposure to public infrastructure finance but are rapidly gaining knowledge on the matter due to their closeness to the roll-out of the SA IF. This provided the researcher with a robust set of views from those entering the space and the ability to provide new insight about their observations of existing practices and those that have historical knowledge of public infrastructure finance. Seven of the participants are rated as experts on IIPSA due to their intimate relationship with the programme. This is due to the small size of IIPSA stakeholders and availability challenges of stakeholders. Based on the researcher's judgement, all participants made positive contributions to the study.

4.3 Participants' perception of IIPSA outcomes

In this section, participants were requested to provide their perception of the overall outcomes of the IIPSA programme against its set objectives. The central theme to emerge from the analysis of the responses on the outcomes of IIPSA is the Misalignment in programme expectation.

4.3.1 Mis- alignment of expectations

While other participants such as P1 states that "*the programme dismally failed to achieve its basic objectives with no economic or social impac*t", others agree that although the project did not meet its intended objectives in terms of leveraging, it, however, did benefit the country in public infrastructure development and should be continued as a grant facility. To explain the

difference in these seemingly contrasting views, the study first presents the views of stakeholders and experts on the performance of IIPSA against its objective.

Participants generally agreed that the objectives of IIPSA as expected by the EU were not met by the programme. However, they unanimously agree that although the programme did not deliver on the leveraging expectations, it succeeded to support the SA NDP by supporting the Government to develop a project pipeline to attract private funding to public infrastructure projects. P8 reports that "*IIPSA has supported a total of 24 projects in SA & SADC with twenty of the projects coming from SA. "There is sufficient investment that has been made into project development to create a project pipeline that could attract debt"*. This investment in project preparation is viewed as a positive achievement in moving the SA infrastructure investment landscape a step closer towards attracting investment in public infrastructure.

Participants are of the view that the programme should not have been terminated and would have resulted in the outcomes desired by both the EU and SA had it been allowed to continue. P2 states that "the programme was stopped prematurely" and P8 adds that "*in the long run, the programme would have had the desired outcomes"*. The view that the programme was terminated prematurely and would have had the desired results for both SA & the EU, is based on the investment made through IIPSA funding to develop projects to bankability and a better understanding of the need in the country. This sentiment is echoed in the IIPSA MTE, where Craviolatti and Van Zyl (2017) recommend that the programme be continued as grant funding. The contrast in the interpretation of the outcomes of IIPSA is captured by P5 who responds that "*Yes & No, the programme did a great job at building a project pipeline towards achieving NDP goals. But did not achieve what the EU wanted to see in terms of blending"*.

In summary, all participants, excluding those with limited knowledge on IIPSA, believe that the programme failed to meet its objectives in terms of leveraging, but acknowledge the impact of the programme in supporting the country to build a project pipeline that will attract private investment in the long run. Participants further add that IIPSA advanced the debate on blended finance in SA as a possible means to finance public infrastructure backlogs.

Despite the potentially exponential benefits of the development of a project pipeline, it is important to understand the reasons for the observed outcomes of IIPSA. The following is a thematic analysis of factors that participants believe, hindered the achievement of the objectives

of the programme. As the project, did not meet its set objectives, participants did not identify factors that enabled the projects, though the effort had been made to establish such factors, i.e. the relaxation of regulatory requirements, such efforts have not been effective in achieving the intended results.

4.4 Participants' perception of factors that hindered the achievement of IIPSA objectives

The framework used to analyse the factors that hindered the achievement of the objectives of IIPSA is based on the 2018 OECD model for the identification of critical success factors. The model categorizes factors based on three categories, Competency, Environment, and Motive. The study adopts the model to further analyse CSF for the use of blended finance in SA. The outcomes of the analysis reveal similarities between the factors that hindered IIPSA success and CSF. Whereas the factors that affected the success of IIPSA are predominantly focused on factors specific to the programme, such as governance, project team, etc., the application of the framework to SA, illustrates the link between the performance of IIPSA and the prevailing conditions for the use of blended finance in SA. The summary of factors that hindered the achievement of the objectives of IIPSA is provided in Appendix E. Figure 6 below, illustrates the data structure for the analysis on factors that hindered the achievement of IIPSA objectives.

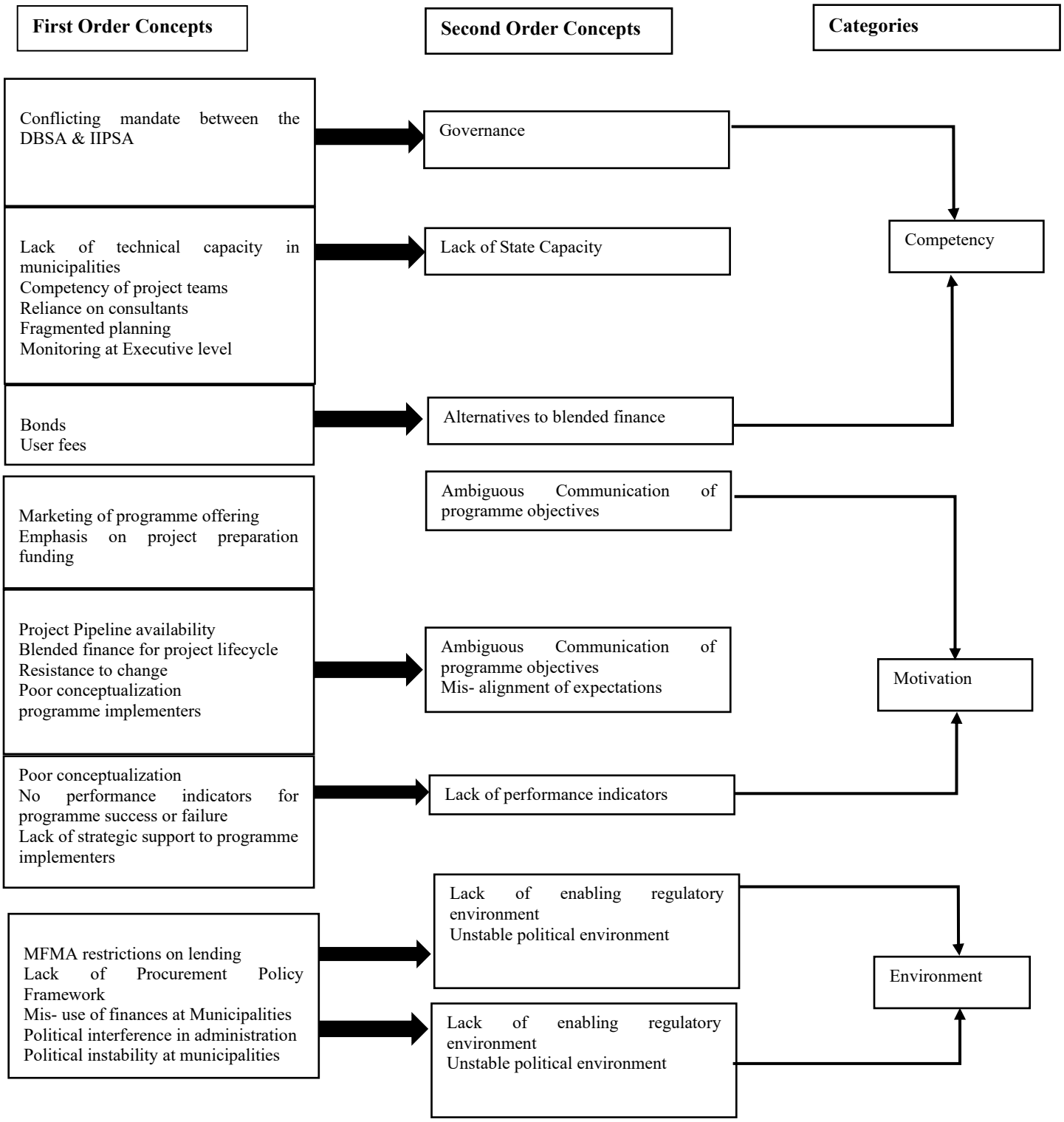

Figure 5: Data structure of factors that hindered the achievement of IIPSA objectives (Source: From Research data)

4.4.1 Competency

4.4.1.1 Governance (capacity and conflict)

At the programme level, the placement of the programme under the DBSA, as Secretariat of IIPSA and responsible for soliciting projects for IIPSA was viewed as presenting a conflict of interest challenge between IIPSA & the DBSA. P1 & P2 are of the view that the confusion amongst stakeholders on the programme offering of IIPSA "*was worsened by the placement of the programme at the DBSA. The DBSA has a project preparation facility, which overshadowed the product offering of IIPSA as a blended finance facility". P1 explains "that the programme was largely used to support the DBSA project preparation facility, while more complex projects were submitted for IIPSA funding".*

To explain why the placement of the programme could have resulted in what other stakeholders have raised as a conflict of interest between the DBSA and the programme, P3 provides an interesting perspective on the design of the programme. This P3 relates "*to the conditions placed on the IIPSA funding requirements. To receive funding, the EU required that four conditions be met by a project. The EU required that the project should create an opportunity for leveraging. The next condition is that the leveraging opportunity should at least be 5X or more. Once this is established, the participating DFIs must be considered for financing when the project goes out to the market. The fourth condition is that the project had to be led by a government department or entity. The applications for IIPSA funding, however, were at the early development stages and did not present the opportunity for leveraging. As these could be directed to the DBSA project preparation funding facility, where the requirements are less strict, the IIPSA program can be said to have boosted the DBSA project preparation facility activities".* P3 however does not view this as a flaw in the governance of the program as stated by P13, but rather a matter of consequence due to the conditions for IIPSA funding being stricter than requirements for DBSA project preparation support. P3 explains that "*It is commonly agreed that any good project that has been prepared well will be able to attract funding. IIPSA should have been used on projects where there was no funding to move the project and not where the DBSA could fund the project. That is where the programme would have had more impact".*

At the institutional level, governance relates to both the individuals and the institutions involved in the management of IIPSA. At the individual level, participant P3 states that "- *The*

person heading the programme was from a project preparation space. Therefore, they could have driven Project Preparation more as it is what they are comfortable doing". P7 supports this view and adds that "*the composition of IIPSA team is from the old school, but their experience was not aligned to need only on engineering aspects. The needs and alternatives were not well presented. There needed to be a diverse group of skills, technical, pragmatic skills to ask all the relevant questions and consider all stakeholders*".

P8 states that "*delays in decision making at municipality level*" *are governance issues that have delayed the implementation of projects in that space. The lack of institutional coordination and a clear delineation of roles and responsibilities to stakeholders*". P3 &P8 further explain that although the argument of governance places emphasis on the issue of conflict of interest between the DBSA & IIPSA, it should be noted that, "*Participating DFIs in this cases were equally responsible for sourcing project for IIPSA funding, however, this responsibility was shifted to the DBSA*".

P9 believes that the IIPSA governance practices were flawed and did not provide the opportunity to municipalities to improve on their applications. R9 states that *"no formal response to applications to indicate what was lacking to work on improvements".* From experience as a consultant to the municipalities contracted to assist in the development of projects, P9 explains that the letters informing the applicants of the outcomes of the IIPSA assessment did not provide municipalities with reasons for the outcomes or guide them on areas that need improvement. This limited the transfer of skills to municipalities and perpetuated the dependence on external consultants.

4.4.1.2 Lack of technical State capacity

The heavy reliance of IIPSA on consultants to develop and support municipalities highlighted the technical capacity challenges in the State. P2 explains that "*A lack of technical capacity in local government and the use of the private sector to act as transaction advisers, promoted the interests of the private and not the public sector on the programme"*. All participants agree that the lack of technical capacity in the state is the primary reason for the lack of "bankable" projects from project sponsors. Many of the participants agreed that it is not a lack of funding that hinders the adoption of blended finance, but rather the lack of "bankable" projects to attract private investment.

P9 reports that in addition to the lack of technical capacity, IIPSA restricted the participation of the private sector by restricting funding only to the public sector. R9 argues that "*the programme would have had a wider range of projects that to select from as there was private sector interest in the programme".* P9 further supports the participation of the private sector in IIPSA, by arguing that the "*private sector could develop projects that meet the IIPSA funding requirements. But that due to the limitation of private sector participation and a drying up of public infrastructure projects from the public sector, resulted in the loss of about 40% of the country's Engineering Consultants over the past ten years".*

4.4.1.3 DFIs mandate restriction and role

As previously noted, some of the participating DFIs in IIPSA were restricted from participating in certain transactions. The EIB could not participate in a project that had a local content requirement and KfW could not participate in projects that involved local government. Participants agree that this restricted the ability of DFIs to mobilize financing for projects that are aligned to the developmental needs of SA. P6 explains that "*desperation to get projects, lead to investing in a project that was not viable. There was a lack of support for some of the high-impact projects such as the student accommodation programme. There was a need to consider the agenda of the state. Relating to localization and other policy directives. Which was not particularly supported by the mandates of participating DFIs*".

P8 explains that "*the liquidity crisis that was highlighted by the default of the Landbank and the subsequent downgrading of all DFIs made them less competitive against commercial banks".* "This led to a downgrade of all DFI further increasing the cost of raising capital. R7 explains that DFIs are expected to raise funds in the capital market, like commercial banks. Without any support from the Government, the DFI mandate is shifted from a developmental to a sustainability focus, putting DFIs in direct competition with commercial banks. Though participants generally agreed that DFIs have a significant role to play in attracting finance for public infrastructure development, P13 explains that "*DFIs have not been able to play their role in pushing those projects with high developmental impact. They need to play the role of participating in riskier project development and accept lower returns*".

4.4.2 Motivation

4.4.2.1 Ambiguous communication of programme objectives

Participants, generally understand the programme to have been marketed to all stakeholders, especially those in the municipal sphere of government, where the highest opportunity for blended finance was identified, as a grant funding facility for project preparation, and not so much as a blended finance facility. There are two levels of dimensions of ambiguity identified in the findings. The ambiguity of the programme as a project preparation and grant facility versus a blended finance facility, and the lack of specificity on the use of the various instruments of the programme. P1 states that "*the programme was predominantly communicated as a project preparation facility, particularly at the municipal level*". P8, who was a consultant supporting municipalities to apply for funding, at the time the programme was launched, emphasizes this point and adds that "*there was a vague understanding of the objectives of the programme, despite numerous engagements with the project owners at the municipal level*".

The ambiguity around the objectives of the programme is illustrated by the understanding of IIPSA as a grant facility for project preparation by P5 & P12. Their understanding however is explained by P8, who had intimate knowledge of the programme at the time, that the programme was not understood by all stakeholders and that it was not clear on when to apply for blended finance or grant funding in the project lifecycle. This ambiguity becomes apparent when many of the applications that were received for IIPSA funding were for direct capital grant funding and grant funding for project preparation. The lack of specificity on the application of the instruments offered by IIPSA is raised by P3. P3 explains that "*there was no specification on which projects should be funded and at which stage the various instruments such as project preparation could be used".*

4.4.2.2 Mis- alignment in Expectation

Whereas some participants acknowledged that the blending facility of IIPSA was communicated to stakeholders, though to a less degree, all stakeholders with IIPSA experience agreed that the expectation of the EU and IIPSA stakeholders in SA were not aligned. P7 states that "*the programme assumed the availability of readily available projects to attract debt financing*." The EU was expecting to find projects that are "shovel" ready as explained by R6 & R8 whereas SA needed funding to develop projects to bankability. P13 emphasizes the mismatch between EU expectations and the SA realities on "shovel" ready projects stating that

"*the programme did not meet its objectives, the project required project preparation funding, and IIPSA wanted to push an agenda for blended finance in the space*".P7 states that "*the programme was not well thought out and did not take the realities of the country*". This view is stressed by P6 from previous knowledge of the involvement of the EU in Eskom, the SA power utility, projects. P6 explains that "*the expectation of the EU was based on previous experience with Eskom, were the participating DFIs in the programme expected to make double-digit returns of between 13%-15 % within the first five years of the programme".*

The other participants took a more balanced view of the motives behind how the objectives of IIPSA were set up. P2, P3, P5 P8 &P13 strongly believe that the challenges were not in the setting up of the objectives or a lack of communication on the IIPSA blended facility, but rather the realities that emanated at the point of implementation. P2 refers to the outcomes of the RFP process that was used to solicit projects for IIPSA funding. "*Of the more than 1000 applications received, the bulk of the applications were for grant funding for project development and ultimately only two projects qualified for IIPSA funding"*. P6 states that "*the predominant communication of IIPSA as a project preparation facility, was driven by the need in the municipalities and was not intended to create conflicting expectations*". No other participants provided a contrasting view on the alignment of expectations between the EU and SA.

P3 explains that "*there was a mismatch in the expectation of IIPSA versus what the implementers could observe on the ground. Most of the projects that applied to IIPSA, could only qualify for project preparation funding whereas the EU was expecting that the projects funded through the programme should bring about a lending opportunity for the participating banks".*

P7 stresses that this mismatch was largely driven by the greater agenda of Bretton Woods Institution. P7 states that*" there was the poor conceptualization and not identifying the foundries of IIPSA in which space. The EU was merely replicating what has worked in other countries and assuming it would work here. Opportunistic participation of selected DFIs by EU to benefit the DFIs and not necessarily the country".* P7 further links deployment of programmes such as IIPSA a means through which "*these countries need to create a footprint in the various countries to manage them and be able to gain favour to manage the countries policies. Similar to the setting up of the Bretton Woods Institutions, which were meant to manage economies post the 1st World War. "Debt is the best management tool".*

Two of the participants, P6 & P7 raised interesting issues around the need to change how public infrastructure delivery is financed in SA. P6 explains that despite ongoing debates about blended finance "*there is a tendency to revert to the old ways of doing things"*. P6 further adds that "*people are protective of their turf and need to start working towards a common goal to solve problems jointly and reduce complacency in the professional sector*". P7 views the consulting profession to be pushing for technical solutions and not considering the developmental impact of infrastructure solutions. P7 states" *The consulting profession is still stuck to old ways of doing things, providing technical solutions first without considering the ability to pay. The socio-economic impact was lacking. The consultants received a maximum benefit at significant fees"*. P6&P7 believes that the discussion on blended finance needs to consider the financing of the complete lifecycle of the project, including maintenance and operations. This is where most of the risk lies for the government and where communities are left most vulnerable post the delivery of the infrastructure. This is against the current approach to blended finance where funds are focused only on the construction costs of the project.

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4.4.2.3 A lack of clear performance measure for IIPSA

In providing an assessment on the performance of IIPSA, P2 referred to the objectives of IIPSA discussed in the previous section. P2 explains that without a clear set of measurable objectives, it is not possible to state if the programme had achieved its objectives or not. P2 states that "*at some point within the roll-out of IIPSA, there were discussions on developing a log- frame to measure the outcomes of the programme. However, this responsibility was allocated to the DBSA by the EU, post the 2017 MTE. DBSA developed the log- frame and submitted it to NT &EU, but no feedback was provided. It is therefore not possible to measure if the outcomes of the programme were achieved. If the programme had not been stopped, it would have resulted in blending opportunities from those projects where project preparation funding had been provided"*.

4.4.3 Environment

4.4.3.1 A lack of enabling Regulatory Environment

An enabling environment for blended finance involves factors that are external to institutions and require management by the relevant authorities, Cui, Liu, Hope and Wang (2017). These include the political, regulatory, policy, and economic environment. Three of the participants, P2 & P8 identified the need for the appropriate regulatory reforms to support blended finance at the municipal level with poor balance sheet positions to attract debt. The MFMA restricts municipalities from using conditional grant funding to raise debt against the future allocation. The Act further restricts the use of borrowing commitment above a period of three years. To support municipalities in raising loan funding, the National Treasury issued Circular 51 of the MFMA in 2010. The Circular was issued to allow municipalities with poor balance sheets to pledge future conditional grant allocations to attract loan funding, Baloyi (2011). However, P2 representing the Government, believes that through this support was extended to municipalities, "*the procurement policy framework to advance this process was lacking. Municipalities were using the funds to pay off other loans and not directing the funds towards leveraging activities*". P8 adds that "they *would pledge large amounts for a single project that was still in development and only required a portion of the allocated funding for the year, and subsequently underspend or reallocate funds to other needs when the project funds are not spent".* This rendered the regulatory measure ineffective in supporting the municipalities to raise debt financing from IIPSA.

4.4.3.2 Unstable political environment

At the country level, P6 offers to explain that the outcomes of the programme can be related to the prevailing political environment at the time. There were numerous cases of corruption being reported on major public infrastructure projects. P6 states that "*The programme came in at a time when there were high levels of corruption reported in SA, especially at the municipal level, example Tshwane project, were meters were being installed where they were not required or where user fees were already being charged*" With no visible political support and a lack of transparency in dealing with cases of corruption, donor countries were generally not very trusting to invest in SA. This created stricter imposition of conditions by the EU and increased the risk premium required by the investor to invest in SA.

4.5 CSFs for the roll-out of the SA IF

This section presents the CSFs that experts and stakeholders believe need management for the roll-out of the SA IF. It invites the participants to provide their views on the application of blended finance in SA public infrastructure development and to identify factors that would advance or hinder its successful implementation. From the thematic assessment of the data, the CSF was organized under six themes that emerged from the data. The themes on Context, Institutional Capacity, and the Analysis of Alternatives to blended finance relate to the competence of the institution and people. The themes that relate to the motivation of the stakeholders are Transparency and Motives. The Environment themes focus on factors that relate to the business operating environment. Figure 6 below, the data structure for the analysis of CSF for blended finance in SA, illustrates the main and sub-themes to emerge from participants' responses.

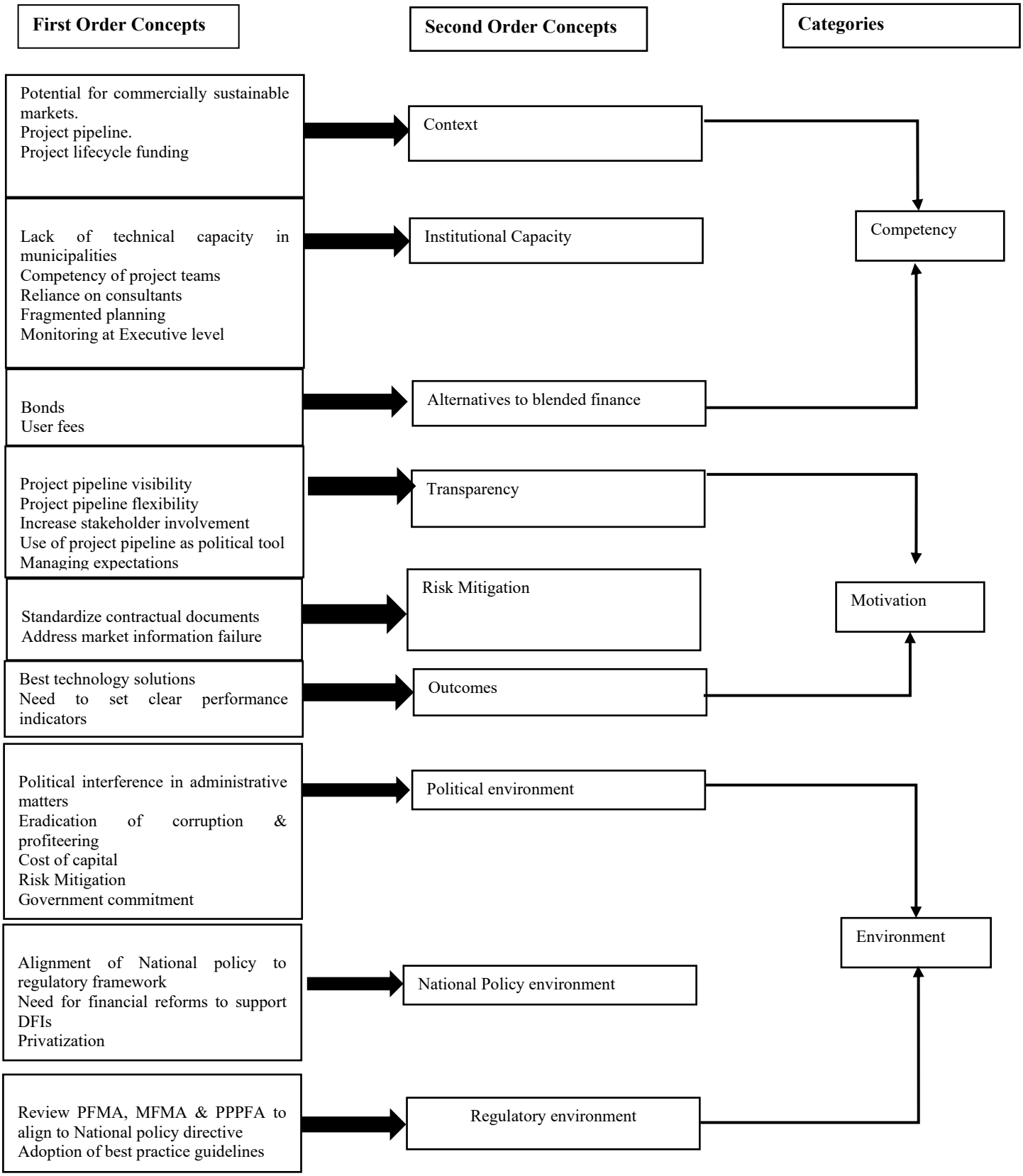

Figure 6: CSF for blended finance in SA (Source: Research data)

4.3.1 Competence

4.3.1.1 Context

Out of the thirteen participants, nine stated that blending can only have the intended developmental benefits if deployed within the right context. A recurring concept amongst the participants on the correct context to deploy blending in SA relates to considering the whole public infrastructure delivery value chain and applying blending to address issues of maintenance and operations. P1, P2, P6, P7, P8 P9 &P13 believe that in the current approach where blended finance is only focused on construction-related activities, the maintenance and operations burden end up with the state.

P6 asks "*Why it is that blended finance does not cover the entire value chain to O&M*?" and then adds that "*the use of terms such as refurbishment, as avoidance language, is aimed at moving the operations and maintenance costs away from construction costs".*
P9 that "*at a national level, to mobilize the private sector to develop public infrastructure, moving towards a more privatized infrastructure delivery model that takes into consideration the operations and maintenance costs of public infrastructure. Not to subsidize investment but to create sustainable projects with own revenue sources that can be achieved through charging user fees".* P2 & P7 emphasize that within the SA context, the approach to blending needs to consider dysfunctional municipalities that cannot efficiently operate and maintain their infrastructure. This view is strongly opposed by the DFIs who state that blending should not be used to finance operations and maintenance activities. That this area poses too many risks for investor appetite and is best managed by the Government.P10 &P11 explain that "*The maintenance and operations should be taken over by government or private sector. DFI should not participate in that area*." P9 argues that "*A lot of institutional investors and financiers focus on the project feasibility and construction phase of the project, less to no consideration is given to operations and maintenance. This is a major risk, as it informs your payback terms of the loan funding. The risk phase is in the operations and maintenance. This leaves the risk with Government and is not appropriately allocated as should be in PPPs (revenue risk allocated to government)".* DFIs argue that to avoid the risk of loan repayments post-construction, the project evaluation should consider the project's affordability to the project owner, which should include operations and maintenance costs. Where there are affordability issues, projects should not be considered for blended finance as the project may require subsidization from the government. P10 & P11 emphasize this point by stating that, "*The stronger partner should*

collect the revenue in a PPP. DFIs should not get into transactions where there are affordability issues from the partner". This view is supported by P13, who advocates for financial support from the Government to DFIs to make them more competitive against commercial banks in pursuit of their developmental mandate.

The misalignment between the expectations of EU & SA of IIPSA is discussed at length in previous sections. Most of the participants believe that the lack of a project pipeline that is shovel-ready was the primary reason for the misaligned objectives and therefore the poor outcomes of IIPSA. A sufficient budget should be set aside for this purpose. P3 acknowledges that while the SA IF will be supported by a project preparation facility of R400 million, which is about 4% of the R100 billion to be mobilized. P3 explains that this is below industry standards, "*when industry norms estimates project preparation costs to be as much as 5%-7%"*. P13 raises the need for a clearly defined set of performance measures for the fund that will be understood by all stakeholders by stating "*The measurability of the development impact should be clearly defined and set in place to review the performance of the various forms of funding to come from the Fund"*. These performance measures should be reviewed along with policy changes and the assessment of the developmental impact of blended finance.

4.3.1.2 Institutional Capacity & Coordination

All stakeholders agreed that State Capacity required urgent attention. P12 captures the sentiments of other respondents, that it is "*A lack of skill and not money to bring projects to bankability*". P5 further adds that "*funding is not the problem, but the decision-making process within the institutions creates a bottleneck to move projects*". The lack of technical capacity, particularly at the municipal level, has severely affected the ability of the State to respond to the growing need for infrastructure. Despite numerous efforts to support Municipalities to plan for infrastructure and the amount spend on technical advisory services, there have been minimal skills transfer to municipalities. Participants P10 &P11 state that "*Grants have been successful but local partners at the municipal level have not been able to absorb these due to various reasons, from a change in management, internal governance agenda, changes in administration, conflicting interest and primarily a lack of technical skill*". With concern, P10 & P11 propose that at the minimum, municipalities be capacitated to oversee the work of the consultants appointed to support them. P10 & P11 argue that it is not just a lack of skill that is affecting the institutional capacity at the municipal level, but other factors relating to the

internal politics within municipalities that complicate the process of adopting blended finance at this level. P13 states, "*Price escalations and poor management of historical projects further affect risk component associated with an investment. A lack of capacity & skill to coordinate the implementation of infrastructure*". P9 explains that "*the country lost as much as 40% of Civil Engineers due to a lack of work from Government*". This further reduced the available pool of resources to support Government and reduced competition amongst consulting firms, who could command higher fees. Professionals can again command higher salaries in the private sector than in the public sector, further dis-incentivising taking permanent positions in the public sector.

At the team level, P7 agrees with P10 & P11 that there needs to be a shift in the diversity of skills required to deploy blended finance. P7 states that "*There needed to be a diverse group of skills, technical, pragmatic skills to ask all the relevant questions and consider all stakeholders*". DFIs also recognize the need to build institutional capacity. P10 & P11 explain that institutional capacity is not only important to the Government, but as DFIs, they have built in-house capacity to oversee the technical aspects of projects to support the decision-making process on potential projects. This recognizes the need for skills variation that P7 advocates in building public institutional capacity. P5 adds that capacity building in the State should not be limited to technical skills, but knowledge and skills on blende finance are required.

The fragmented approach to infrastructure planning and delivery was highlighted by participants as a source of waste, inefficiency, and delays. P4 explains that whereas the focus was on unblocking regulatory and operational bottlenecks, "*it is no longer EIAs and Wulas that are causing blockages in the system, but rather issues of rezoning that can take up to 2 years, which is time the investor does not have*". These present a growing area of concern in the move towards producing bankable projects. P6 the inefficiency Government is now moving towards building institutional capacity to coordinate on issues of cost containment and project development. The establishment of ISA is viewed as a good step by the Government towards creating a more centralized platform to coordinate infrastructure delivery. P1 states "*there is a need for institutional capacity to at the level of the Presidency to unblock project that requires Executive intervention*". The placement of the structure within the Presidency strengthens the ability of the structure to unlock bottlenecks that require political intervention and are beyond the implementers. P6 points out the inefficiencies that have emanated from a lack of coordination within the State, where Environmental Impact Assessments (EIAs) can be

conducted more than once for a project due to delays in moving the project to implementation. As these EIAs are valid for a limited period, if the project does not move into implementation, the work has to be redone. P7 questions echo this view and ask "*why each project has to have its own EIA? If there was better coordination of planning activities, EIAs would be conducted at a programme level*".

4.3.1.3 Alternatives to blended finance

P6 compares the cost of blended finance project development and notes that "*The high costs of conducting project development work versus the project cos*t". This brings to questions the investigation of alternative financing means for public infrastructure in SA. Generally, participants had a good understanding that blended finance is not a one size fits all solution to the infrastructure challenges of the country. P8 states that "*The bond market in the country is well developed and viewed as relatively safe by the potential investor*". Though not all agree on the type of bonds that should be issued, i.e., green, construction, or project bonds, they believe that these offer a viable option for SA given the limitation of using risk mitigation to attract blended finance. P5 & P13 explain that SA has no further capacity to offer guarantees to projects. Therefore, P5 argues that Government should consider issuing bonds given the level of development of the market. P1 explains how "P20 billion raised through project bonds to fund the Gauteng Improvement Plan. These were not popular in the market. There was a preference for Government bond". P1 further explains that there is work being done to develop the work on raising infrastructure finance using the concept of "Land Value Capture". This is explained as an approach where municipalities will use land development to raise an income stream from developers. The work being done on this funding model was also mentioned by P7 & P2.

P9 presents a model for raising public infrastructure development that was deployed in Tshwane by, "*Using other forms of financing, property rates act, to increase revenue from charging higher revenue collection in a particular rate. Pay a 10% add-on, to finance social infrastructure in a particular area. The first road Fund introduced in Tshwane at local government roads as local government cannot ask for tolls, was the Zambezi drive when the areas of Montana were developing. There was high development pressure where there was not enough road development. The Road K8 fund was established for developers who are interested*

to develop that area, could be approved, and had to contribute to the Fund. When there was enough money, the road could be constructed".

4.3.2 Motivation

4.3.2.1 Transparency

Participants believe that there needs to be an increased level of transparency that will reduce the risk premium for loan funding. P8 advocates for Government and the private sector to be open about the information on infrastructure development. P9 states that "*Institutional investors cannot invest in something they do not know of. We need to bring more transparency to the development of the project*". P9 advocates for project pipeline visibility and explains that the Strategic Infrastructure Delivery Initiative (SIDS) launched in June 2020, was a very good way of creating transparency between the potential investors and Government. Investors were provided with a view of the potential projects they could invest in and pledges were made on the basis that those projects would be further developed and present an investment opportunity for the investor. However, the current approach of the Government to keep the project pipeline "Secret" to avoid competition distorting factors, provides the private sector with limited information on investment opportunities, creating a market failure which adds to the risk profile of investing in a country.

P7 views on transparency are that "*The fund needs to be flexible so that investors and projects can come in and out of the fund. The Project pipeline cannot be static as market and demand conditions are not static. The Project pipeline needs to have High flexibility. A high level of transparency, like an investment fund. Key in the fund, is options analysis, best solution. Like a JSE listed company. Caution to place Fund with an organization that may have an incentive to benefit the organization and not focus on the mobilizing the Fund for maximum impact*". However, stakeholders need to change their mind-sets around the project pipeline and build flexibility into the project pipeline. The pipeline should be responsive to changing demand conditions and not be used as a political tool to make commitments.

To improve the transparency of a transaction, participants proposed the use of standardized agreements, templates, procurement frameworks that are understood by the private and public sectors. P5 states that "*Creating an enabling environment, doing something similar to IPP office, where there is a framework that allows the private sector to understand the rules*". The

use of these on the REIPPP programme, was key to establishing transparency and understanding of the objectives of the programme between the parties. P12 adds that "*Standardized legal agreements and structures used for approval, customization per sector is the reason for the success of IPP.*" As part of improving transparency on blended finance, Government needs to consider managing the expectations of all stakeholders. P6 suggests that "*Drop expectation on returns, cap the return, as people believe there is a lot of money to be made from investing in public infrastructure*".

On the political side, Government needs to manage the expectations of communities on commitments made to provide infrastructure, and on the market side, P7 suggests that "*The gazetting of infrastructure project should be discarded as a practice as infrastructure projects are not static and need to adapt to changing market conditions. The cost of money in SA is high*". Though the proposal seems to contradict the principle of transparency, it provides Government and the private sector to amend projects based on need.

P5 & P6 are of the strong view that all stakeholders, including beneficiaries, should be part of the development of infrastructure development and financing. P6 states "*this could be achieved by building community investment; they will earn the return compensating for inflationary losses. Pension Funds retain ownership of the asset if the community has Institutional Funding. This is not only limited to the use of construction bonds, other forms of funding to pay for operations of the facilities. Using industries in rural areas, such as mining to invest in rural communities as part of their obligation (Mineral Development Act). Directing the amount of social funding required to construct a project. Deciding where this capacity needs to be built*". This would increase the pool of funding for public infrastructure with the support of the beneficiary who is now a stakeholder in the project with a vested interest.

Though P4 believes that, "*Lobbying of MDBs and DFIs to provide project preparation funding. Not a lack of funds but a lack of readily available projects. Working on both social and commercial projects. Risk mitigating instruments are being considered to reduce the risk of investors*". P13 is of the view that "*There would be no need for other players such as IMF if blended finance was used within the development context*".

4.3.2.2 Outcomes

P7 caution against the choice of technology used in infrastructure in the country. They argue that the choice of technology is a means through which the private sector wants to manage the global supply chain. They referred to the conditions on the choice of technology that is imposed by investors on blended finance transactions. P7 states that countries need to move away from Victorian technologies to infrastructure and adopt technologies that best suit the context of the country. As a way of example, P7 states, "*No need for water toilet. There has been a technology shift from the Victorian solution and that should be driven by the sponsors. A revolution in technology*" There has been significant work done on the use of the waterless toilet system in SA. These are the technology changes that need to be considered when planning for the operations and maintenance of projects.

P10, P11 & P13 highlight the issue of conflicting interest amongst stakeholders. These have had a significant impact on the ability to implement projects. P13 states that "*The measurability of the development impact should be clearly defined and set in place to review the performance of the various forms of funding to come from the Fund*". P13 proposes setting out clear performance measures for projects that all stakeholders should agree to. Conflict of interest amongst institutions, where P6 describes it as a protection of turf, has confused role players in the private sector on the strategic direction of infrastructure delivery in the country.

The move towards privatization of certain infrastructure owned by the state was highlighted by P6 &P8. While P6 supports the privatization or sale of certain assets, they are cautious that question the motives of the Government to seek blended finance when other alternatives can be pursued. P6 states "*The State does not want to privatize, because of the social inequalities and serving poor communities does not accommodate privatization*". P8 however, believes that, ". *At a national level, to mobilize the private sector to develop public infrastructure, moving towards a more privatized infrastructure delivery model that takes into consideration the operations and maintenance costs of public infrastructure. Not to subsidize investment but to create sustainable projects with own revenue sources that can be achieved through charging user fees"*.

4.3.3 Environment

The participants identified an enabling environment as constituting the political, national policy, economic, market, and regulatory factors. P1 refers to the November 2020 Moody's downgrade of SA sovereign credit ratings, where political interference in the management of state affairs, was highlighted as a serious concern for investors.

P1 states "*political interference, predominantly observed in municipalities, has blocked project that could have successfully gone through the feasibility phase and be further developed for implementation*". Participants agree that increased political risk raises the cost of capital and the need to use risk-mitigating instruments to support blended finance. P7 states that "*the level political interference has resulted in people getting wealthy through inefficient markets. The focus needs to be on de-risking and reducing the cost of capital in the market*". P6& P7 strongly advocate for the eradication of opportunistic profit-seeking by stakeholders involved in the delivery of infrastructure in SA. P6 states that "*We should cut the garbage out, by reducing spending on consultancy fees, feasibility studies, and EIAs that are written in complex technical terms that municipalities are not able to understand. People should stop trying to capitalize on the delivery of infrastructure in this country*". Political interference is again highlighted by P2 as affecting the implementation of projects, particularly at the municipal level of government. P2 states that "*political interference and corruption, remain a big challenge at the local government level. This has lead to delays in the approval of the project and even stopping certain projects due to political matters*".

They highlight the demand for double-digit returns of about 13%- 15% on infrastructure investment as an asset class, due to higher associated political risk, favours the agenda of the investors, and lacks the developmental impact desired from blended finance. DFIs advocate for stronger government commitment when developing programmes aimed at attracting private investment. Similar to the REIPPP programme, participants P5 &P12 advocate for the use of offtake agreements by the Government to reduce the risk associated with a project.
P5 states "*investors want to invest in a riskless environment. This will require guarantees but we are limited on issuing due to high contingent liability levels. Including MDBs brings a level of comfort to investors, they have very strong governance, implementation and monitoring reporting requirements, which can act as a risk-mitigating measure to create that conducive environment".*

At the National Policy level, P2 & P6 raise an interesting perspective to the enabling environment debate. They highlight the lack of nuance structural adjustment when moving from the Growth, Employment, and Redistribution (GEAR) policy to the NDP 2030 were not aligned to the regulatory environment and failed to provide implementers with clear guidelines on the policy changes. P2 states "*The policy direction of GEAR was more towards the state being a provider or socialist state, the NDP 2012 then changed the policy direction to that of a more open market approach. Talks of nationalization. This is a hindrance to private investment".* P6 & P12 view the change in policy as moving away from the socialist agenda to a more capitalist agenda. The conflict in policy direction is further exacerbated by the financial reforms that the country has adopted to address economic growth challenges. P10 & P11 observe the conflicting policy direction of the Government by asking *"If policy direction is to improve market efficiency, then why are municipalities allowed to not pay Eskom? The Eskom, large staff component is not being addressed in contrast to market-based practices. - politics play a big role in SA*". DFIs use the example of the bloated structure of Eskom and the inability of the Government to enforce the payment of money owed to Eskom by municipalities. P2 also raises the issue of a need to align financial reforms to development objectives. The recent funding of South African Airways to the tune of R10, 5 billion, instead of supporting the Land Bank to meet its financial obligations, is viewed as countering the market based NDP policy position. P13 states that the "Go*vernment should implement financial reforms that prioritize key sectors and activities, instead of pumping fund into failing entities like the SAA".*

P6, P7 &P8 advocate for a move towards privatizing the delivery of commercially sustainable public infrastructure. However, P6 notes that "*the State does not want to privatize, because of the social inequalities and serving poor communities does not accommodate privatization*". P7 further explains that the ownership of assets by the State should be reconsidered as they are of less value to the State and increase the operations and maintenance financing requirements of the State. Selling State assets to the private sector, which has the capabilities to sustainably operate and maintain these assets, is advocated by P6, P7&P8.

The need to review existing legislation relating to public finance was strongly raised by P2 where they advocate for "*Strengthening of policy direction and review of the PFMA & MFMA to align to policy".* P6 &P7. The Public Finance Management Act (PFMA), the Municipal Finance Management Act (MFMA) & the Preferential Procurement Policy Framework Act (PPPFA). These are viewed as contradicting the development agenda of the state, by limiting

the participation of the private sector in infrastructure delivery and causing delays by and not being flexible to private sector participation. P6 states that "*PFMA is a restrictive regulation, it paralyzes the implementation of infrastructure*". P2 adds that the adoption of best practices for infrastructure procurement has to a large extent, been ignored by stakeholders responsible for infrastructure delivery. P2 adds that "*The adoption of the Standards for Infrastructure Procurement and Delivery Management (SIPDM), adopted in 2016 as best practice and a framework to guide infrastructure procurement, is not considered when procuring for infrastructure investment*. P8 highlights the need to offer investment opportunities of a longer tenure than the current MTEF framework. *"Consider the long-term investment nature of infrastructure and not limit financing instruments to the construction phase of the project only but addresses issues of operations and maintenance".*

CHAPTER 5: SUMMARY, CONCLUSION & RECOMMENDATIONS

5.1 Introduction

This section aims to summarize and conclude the findings of the study as discussed in Chapter 4 and present recommendations for the successful deployment of blended finance in SA. Reflecting on the complexity of the subject, the study adopts a qualitative research methodology to understand the reasons for the poor outcomes of financial blending on the IIPSA programme, by identifying specific factors that impacted the performance of the programme. Through the thematic analysis of responses to a survey questionnaire administered to IIPSA stakeholders, the study presents CSF that requires consideration for the successful deployment of blended finance in SA.

5.2 Summary and Conclusion

5.2.1 Outcomes of IIPSA

The key theme to emerge from the thematic analysis of the responses related to IIPSA outcomes is the misalignment of programme expectations. Participants in the study, unanimously agree that the IIPSA programme objectives, as they relate to financial blending, were not met. The EU and participating banks of IIPSA, expected the country to have a project pipeline of public infrastructure projects that are ready for investment, however, despite a lack of response from the initial call for proposals to attract projects the programme objectives were not adjusted to be responsive to prevailing conditions. Participants believe that the programme provided support to SA in developing a project pipeline and should be continued as a grant facility.

5.2.2 Factors that hindered or advance the achievement of the objectives of IIPSA in SA

The themes that emerged from this analysis grouped in terms of Competency, Motivation, and Environment. The study finds that participants believe that the placement of IIPSA under the DBSA created conflict between the DBSA's project preparation facility and the programme, as simpler projects that could be funded by the DBSA were channelled to the bank and those projects that met the IIPSA condition of "Additionality" could not attract blended finance. A lack of technical capacity in the state was cited by participants as being the primary reason for the lack of a project pipeline to attract blended finance funding. From the private sector, DFI mandate restriction from the participating DFIs of IIPSA limited the ability of DFIs to invest

in projects that required subsidized funding and had the developmental potential desired by stakeholders.

The themes that relate to the motivation of the stakeholders that emerged from the study, spread throughout the lifecycle of the programme, from conception to review. Participants highlight the need to set performance measures to assess the outcomes of the programme and to communicate the objectives of the programme in an unambiguous manner. However, the misalignment of expectations between the EU & SA as they relate to the availability of a project pipeline to attract private investment was predominantly cited by participants as a key contributor to the outcomes of IIPSA.

An unstable political environment, where there is a rapid change in management and political interference at the municipality sphere of government, has resulted in the delay and in some cases, the cancelation of potentially high-impact projects that could have been funded through IIPSA. Whereas the current regulations and practices focus only on funding the construction of the project, participants believe that there needs to be a shift to fund the full project lifecycle from concept to operations and maintenance.

5.2.3 CSF for the adoption of blended finance at a national level

CSF for the adoption of blended finance in SA is categorized into three categories of factors, competency, motivation, and environment.

Three themes emerged from the analysis of the Competency related factors that need management to deploy blended finance in SA, Context, Institutional Capacity & Coordination, and the ability to evaluate other alternatives to blended finance. Participants view the lack of technical capacity in municipalities as one of the primary reasons attributed to the lack of a project pipeline to attract investors. To improve the competency of all institutions involved in public infrastructure delivery, participants believe that DFI capacitation efforts should address their development mandate through increased financial support from the Government to make them more competitive against commercial banks, and to coordinate the planning and monitoring of projects such as to consider their interdependencies.

Participants agree that the involvement of the private sector in public infrastructure is largely viewed as profit-seeking and not developmental. They believe that managing the expectations of the private & public sectors in blended finance requires clear communication on the

objectives of the project and setting performance standards that all parties to the transaction can be held against. The government is encouraged to take on the responsibility of setting performance standards in line with its development policies and related regulations.

Participants of the study believe that many of the challenges relating to public infrastructure finance can be overcome if there is political will and commitment. They further believe that there needs to be changed in regulations to allow for the participation of the private sector in public finance. These changes need to align to clear national policy directives.

5.3 Recommendations

The lessons learned from IIPSA, though the programme was not considered successful by stakeholders, provide a foundation against which reference can be made in the growing discussions and promotion of blended finance as a catalyst for economic growth in SA. With progress underway to establish the SA IF, the ability to reference previous experience on blended finance, more so in the absence of readily available data, allows for the review improvement of the use approach with the outcome being the mutual benefit of all stakeholders to such transactions. Based on the discussions with participants and the researcher's judgement, the recommendations for the adoption of blended finance in the mobilization of SA IF, are discussed at the country, the institutional & project level.

At the country level:

- The political climate prevalent in most African countries has increased the risk premium required by investors for investing in Africa, Kodongo and Ojah (2012). This is due to political instability, conflict and as recently reported by Moody's, political interference in making administrative decisions. Political interference and the associated corruption on large infrastructure investment projects, such as the Medupi & Kusile Power Generation plants, continue to hamper efforts to use infrastructure to advance economic growth. The direct impact of such a political climate will be felt when the country needs to raise capital from the private sector. The political climate in municipalities is a matter that the country has been grappling with for decades. It has eroded the impact of the numerous support programmes set up to support the delivery of public goods and services. The Auditor General's (AG) Annual Report for the 2018/19 financial year, reports that only 21 of the 266 municipalities achieved a clean audit, despite a heavy reliance on consultants to close the capacity gap. This was strongly related to issues of

mismanagement of funds and a lack of accountability. Political willingness to act on issues raised by the AG is lacking.

- The regulatory environment has come under scrutiny from a ruling by the Supreme Court of Appeal (SCA) on 2 November 2020 declaring the PPPFA of 2000, invalid, which has brought into sharp contrast the discrepancies in the regulatory framework and the development objectives of the Government. The SCA declared the PPPFA invalid for failure to comply with section 217(2) of the Constitution, due to the failure of the Minister of Finance to provide a framework for the application of criteria for preferential procurement to guide the state of organs on the application of the PPPFA, Holmes (2020). There is a growing call to review and align the procurement legislation with national objectives. This applies to the PFMA, MFMA & the PPPFA. Though the policy direction of the country is towards a more market inclusive approach, the regulations lack the flexibility to accommodate private sector participation.

Key to creating an enabling environment, Jimali (2004) purports lies in the trust that can be established between the private and public sector. A lack of transparency on blended finance transactions is highlighted by the OECD when attempting to collect data on blended finance transactions. The OECD reports that data on blended finance transactions is not readily available. Stakeholders are not open about their expectations and withhold key information that leads to market inefficiencies. The high costs associated with blended finance are partially attributed to a lack of information available to both the private and the public sector on blended finance. The Government is sensitive about publishing the details of its infrastructure development plans, citing competition concerns. On the other hand, the private sector is not open about the pricing of capital.

At the Institutional level:

- *Institutional Capacity*. The lack of a project pipeline to attract investment is largely expected to emanate from the municipal sphere of government. This is where the focus on building capacity to enhance the adoption of blended finance should be placed. The capacity of state entities, such as the DBSA to support the developmental objectives of blended finance, requires financial reforms where funds should be directed towards creating long-term sustainable public infrastructure markets and not on the bailout of dysfunctional SOEs.

- *Institutional inefficiencies* that result from a lack of skill, knowledge, capacity, and strategic coordination, have resulted in the loss of millions worth of wasted expenditure on the use of consultants to capacitate the public sector. Viewed against a ballooned public wage bill above 80% of total public spend, the losses are exponential. All participants agree that capacitating the state with the relevant expertise, outweighs the benefits of using consulting services. Programmes aimed at developing the capacity of the government institutions should consider the concurrent development of capacity at the individual level.
- *Institutional Coordination* is essential to build efficiency into the infrastructure delivery system. The coordination should consider issues of the centralization or decentralization of decision-making powers against the regulatory framework. The use of best practice frameworks and guidelines to facilitate coordination of activities and gain from knowledge management efficiencies are critical components of achieving coordination at the country level.

At the project level:

- *Motive.* What the success or failure of a blended finance project is, should be communicated clearly to stakeholders. Key Performance Indicators should be set for all aspects of the transaction's outcomes including, the developmental targets and financial outcomes. All stakeholders should be working towards the achievement of a common goal and this goal should be articulated and accepted by all stakeholders.
- Blended finance should be deployed in the appropriate *Context* that matches the realities of a project. This has been the case where a lack of investigation into alternative funding sources and the pressure to create commercially viable markets is dominant due to fiscus pressure. Governments need to balance the use of blended finance against the long-term costs that will have future budget implications that will put further pressure on the fiscus.

Blended finance is an alternative to the conventional procurement method of funding public infrastructure investment. The structures that support infrastructure delivery in the country, were by design aimed at addressing inequalities of the post-apartheid SA. A move towards more market-orientated approaches is a change in the delivery modality that is both complex and dynamic. Without adopting the relevant *Change Management* tools, blended finance will fail to meet development objectives.

5.4 Avenues for future studies

Blended finance is still a relatively new concept in the application of public infrastructure finance in SA. The growing body of knowledge on the matter suggests that it is gaining importance in the suite of financing solutions available to developing countries, reducing the burden on constrained fiscus. Firstly, to facilitate meaningful research into the use of blended finance, financiers and authorities need to establish a level of transparency on these transactions to allow for research on an aspect such as the cost-benefit assessment of blended finance, to allow for reviewing and refinement of the deployment of blended finance to create mutually beneficial PPPs. The imbalance of benefits from PPPs in developed countries versus those of developing countries has largely been associated with the risk attached to investing in developing countries. However, the risk associated with the development, operations, and maintenance of PPPs is allocated to the public sector. In poorly capacitated developing countries, this risk translates to further constrain on the fiscus in the long run. A look into risk allocation in blended finance transactions and the higher premium attached to risk mitigation in developing countries will advance the developmental agendas of developing countries.

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6. Appendices

Appendix A: Letter of introduction

December 2020

Title: A critical analysis of the use of blended finance for public infrastructure development in South Africa: The IIPSA Case Study

Dear Prospective Participant

My name is Mosa Keneilwe Kopeledi and I am conducting research with Prof. Abdul Latif Alhassan, a lecturer at the University of Cape Town Graduate School of Business towards the completion of an MCom Development Finance Degree. We are inviting you to participate in a study titled **A critical analysis of the use of blended finance for public infrastructure development in South Africa: The IIPSA Case Study.**

WHAT IS THE AIM/PURPOSE OF THE STUDY?

The study has two main objectives: -

i. To investigate factors that hindered or advanced the objectives of IIPSA as a blended finance facility for in Southern Africa.
ii. Make recommendations on the use of blended finance in the mobilization of South Africa's Infrastructure Fund.

WHY AM I BEING INVITED TO PARTICIPATE?

You are being invited to participate in the study as a knowledgeable stakeholder in either IIPSA or the infrastructure delivery and financing landscape in South Africa.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY /WHAT DOES THE RESEARCH INVOLVE?

The study involves conducting an interview with yourself on your knowledge of IIPSA and infrastructure finance. The interviews will take approximately 30- 45 minutes of

your time. A set of structured questions will be forwarded to you before the interviews for your convenience or preparation.

CAN I WITHDRAW FROM THIS STUDY?

Being in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given a letter of participation to keep for future reference. You are free to withdraw at any time and without giving a reason.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

There is no penalty or loss of benefit for non-participation.

You will not benefit directly from your participation in the research. You will receive no payment or reward, financial or otherwise. The results of the research will, however, be of scientific and practical value in understanding the use of blended finance in the delivery of public infrastructure in South Africa.

WHAT IS THE ANTICIPATED INCONVENIENCE OF TAKING PART IN THIS STUDY?

There are no foreseeable physical or psychological risks involved in participation. You will be mildly inconvenienced by the time it takes to conduct the interview (45 minutes).

WILL WHAT I SAY BE KEPT CONFIDENTIAL?

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by legislation (The Mental Health Care Act, Act 17 of 2002). Confidentiality is however not a concern in this research as the tests will be answered anonymously and individual identifiers will not be requested. The data will be destroyed on completion of the study.

HOW WILL INFORMATION BE STORED AND ULTIMATELY DESTROYED?

The data collected will be used to write research reports, which include but may not be limited to journal articles, conference presentations, and dissertations. Your privacy, and that of the organisation you represent, will however be protected and no identifiable information will be included in such reports.

Hard and soft copies of your answers will be stored by Prof Abdul Latif Alhassan for future research or academic purposes including scientific publications in accredited journals. Soft copies will be stored on a password-protected computer.

This research has been approved by the Commerce Faculty Ethics in Research Committee of the Graduate School of Business, see Annexure A.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

No payment or incentive will form part of your participation

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

Yes, see Annexure A.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS?

If you would like to be informed of the final research findings, please contact Mosa Kopeledi on 071 675 2310 or mkmakhele@gmail.com . The findings will be accessible late 2015. Should you require any further information or want to contact the researcher about any aspect of this study, please contact Prof Abdul Latif Alhassan at latif.alhassan@gsb.uct.ac.za.

Should you have concerns about the way in which the research has been conducted, you may contact the Commerce Faculty Ethics in Research Committee of the Graduate School of Business, UCT.

Thank you for taking the time to read this information sheet and for participating in this study.

Thank you.

_____

MK. KOPELEDI

Appendix B: Survey Questionnaire

Research Questionnaire

Topic: The use of blended finance for public infrastructure development in South Africa: The IIPSA Case Study

Purpose: Master's Dissertation (MCom Development Finance 2020)

Institution: UCT-GSB

Part A

1. **Personal Profile**
2. Institution ……
3. Sector……
4. Number of years in institution……
5. Year of experience in infrastructure finance……
6. Field of study……
7. Highest qualification……
8. Description of current or previous infrastructure finance experience
   ……
   ……
   ……
   ……
   ……
   ……
   ……
9. Knowledge of IIPSA rating:

Weak	Moderate	Expert

10. Knowledge of Blended Finance:

Weak	Moderate	Expert

Weak= No Knowledge at all or basic knowledge.

Moderate= Knowledge of concepts (theory), objectives, role players, and institutional arrangements.

Expert= Knowledge of current events or status, application of concepts, regular involvement or participation, ability to provide new insight, etc.

Part B

11. **IIPSA**

a. Do you believe the objectives of the IIPSA programme were sufficiently communicated to all stakeholders? What was your understanding of the objectives of IIPSA?
b. In hindsight of what transpired with the IIPSA programme, do you think that the objectives of the programmes were achieved. Explain why?
c. Kindly identify and explain factors that you believe hindered or advanced the implementation of the programme?

Part C

12. South Africa Infrastructure Financing landscape

a. What do you consider the main challenges for the implementation of Blended Finance in SA? Highlight causes?
b. How appropriate do you believe blended finance is for SA? What can the country do to be more attractive to private funding to raise capital for infrastructure financing?
c. If you were given the opportunity to advise the SA Government on the roll-out of SA IF and adopting blended finance as a catalyst for economic growth, what advice would you give?

-END-

Appendix C: Consent Form

Master of Commerce in Development Finance

INTERVIEW CONSENT FORM:

Participant name: .....

I volunteer to participate in a research project conducted by **Mosa Keneilwe Kopeledi** as partial fulfillment of the requirements for the MCom Development Finance Degree at the Graduate School of Business, UCT. I understand that the research is designed to gather information to **critically analyse the use of blended finance for public infrastructure development in South Africa: The IIPSA Case Study** and that I will be one of approximately 14 people being interviewed for this research.

Background and purpose of the research

The Infrastructure Investment Programme for South Africa (IIPSA) was established in May 2013 between the Government of South Africa and the European Union as a

blended finance facility to promote public infrastructure delivery. The purpose of the research is to investigate factors that hindered or advanced the objectives of IIPSA as a blended finance facility for in Southern Africa and to make recommendations on the use of blended finance in the mobilization of South Africa's Infrastructure Fund.

Ethics approval

Ethical consent for the study has been approved by the *UCT Commerce Faculty Ethics in Research Committee*, see attached Annexure A.

Participation and confidentiality

I understand that my participation in this research is voluntary, that I will not be compensated, and that I may withdraw at any time.

The interview will take approximately 30-45 minutes to complete and will be audio recorded.

I understand that I will not be identified by name in any reports using information obtained from this interview and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.

Should you have any questions or concerns please contact me on 0716752310 or mkmakhele@gmail.com; my supervisor is available on 0718491066 or latif.alhassan@gsb.uct.ac.za

Consent

I consent to participate in this interview, based on the terms outlined above, and subject to the following additional condition of my own (if any).

---------- ----------

Signed by interviewee **Date**

....

Signed by Student **Date**

Appendix D: Participants profile

Respondents	Institution	Sector	Number of year in Institution	Number of year in Ifrastructure finance	Field of Study	Highest qualification	Description of previous or current duties	Knowledge on IIPSA	Knowledge of project finance
R1	NT	Govt	12	11	Development Finance	Masters	Regulator of PPPs. Review of feasibility studies as part of BFI Submissions.Project Finance. Secretariat to NT BFI	Moderate	Expert
R2	NT	Govt	3	3	Industrial Engineering	Degree	Head of IGR at NT. Responsible for infrastructure monitoring and coordination at provincial and municipal level.	Expert	Moderate
R3	DBSA	DFI	2	10	Mechanical Engineering, MBA	Masters	Project preparation funding, lead IIPSA team at the DBSA, Project development. Support to IPP Office. Attracting funds for project preparation & IPP Office. Extensive previous experience in project development and preparation, prior to current role. PICC Infrastructure Specialist involved with monitoring strategic infrastructure projects in the ICT and Health sector.	Expert	Expert
R4	ISA	Presidency	New Institution	1	Civil Engineering	Masters	Institutionalizing and setting up of SAIF with DBSA & NT. Setting up of corporate processes and procedures for ISA. Monitoring of government strategic infrastructure projects.	Weak	Moderate
R5	DBSA	DFI	4	9	CA	CA	Project development and preparation. Bringing project to financial close in the energy sector. Monitoring of project portfolio of projects funded by other DFIS, e.g., KfW. Through SIDS Office, participate in setting up of SAIF.	Expert	Expert
R6	Private Enterpreneur	Renewable Energy	1	30	CA	CA	Working on bringing a renewable energy project to financial close.	Expert	Expert
R7	ISA	Presidency	New Institution	23	Chemical Engineering	PGDS	Infratructure poplicy development and monitoring of government strategic intergrated projects.	Expert	Expert
R8	DBSA	DFI	36	21	BCom, BA, BSC	Honours	Project preparation & IIPSA secretariat	Expert	Expert
R9	ISA	Presidency	New Institution	25	Economics	PHD	Moderate project appplication for funding, lead on economic impact assessment of projects. Develop Infrasstructure Planning & Investment Plan	Moderate	Expert
R10	KFW	DFI	2	5	Economics	Masters	Project preparation	Moderate	Expert
R11	KFW	DFI	15	22	Civil Engineering	Masters	Director, Project management of SADC investment landscape.	Moderate	Expert
R12	NT	Govt	7	2	Accounting	PGDS	Financial oversight of schedule 2&3 SOEs that should be financially sustainable, this includes Eskom, TCTA	Weak	Moderate
R13	NT	Govt	14	14	Development Finance	Masters	Oversee government entities on policy issues, e.g., Land Bank, DBSA. Coordination of DFIs.	Expert	Expert

Appendix E: Summary of factors that hindered the achievement of IIPSA objectives

Competency	**Governance** Conflict of interest between DBSA & IIPSA Relevance of project team skills Lack of Diversified Institutional capacity **State Capacity** Lack of technical capacity for project preparation in the State Restrictions on private sector participation **DFI mandate restriction** Restrictions of DFI participation Clear role of DFIs Need for additional DFI support from Government
Motivation	**Ambiguous communication on project objectives** Conflicting views on IIPSA as project preparation or blended facility **Governance** Conflict of interest between DBSA & IIPSA **Misalignment of expectations** Programme not designed to respond to suit country realities **Resistance to change** Conformance to familiar ways of doing things **Performance measure** The lack of a clearly articulated and measurable set of objectives
Enabling Environment	**Unstable political environment** Corruption on public infrastructure projects **Regulatory restrictions** Restrictive regulatory framework to long term debt financing Abuse of regulatory relaxations