

University of KwaZulu-Natal

**Advancing Gross Fixed Capital Formation (Investment) Paradigm in
the Eastern Cape Province of South Africa: Historical Trends and
Prospects**

By

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of**

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DECLARATION 1

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DECLARATION 2

The following articles and conference papers emanated from the DBA thesis;

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- The second paper is still under review:

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ABBREVIATIONS AND ACRONYMS

EC	Eastern Cape (one of the nine South African provinces)
ECPC	Eastern Cape Planning Commission
FDI	Foreign Direct Investment
GDFI	Gross Domestic Fixed Investment
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GVA	Gross Value Add
NMMU	Nelson Mandela Metropolitan University
SA	South Africa

Government Institutions

BCMM	Buffalo City Metropolitan Municipality
DBSA	Development Bank of Southern Africa
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape Provincial Department)
ECDC	Eastern Cape Development Cooperation
ECPT	Eastern Cape Provincial Treasury
ECRDA	Eastern Cape Rural Development Agency
ECSECC	Eastern Cape Socio Economic Consultative Council
ELIDZ	East London Industrial Development Zone
COEGAIDZ	Coega Industrial Development Zone
IDZ	Industrial Development Zone (designated investment areas in SA)
NMBM	Nelson Mandela Bay Metropolitan Municipality
NYDA	National Youth Development Agency
SARB	South African Reserve Bank
SEDA	Small Enterprise Development Agency

ABSTRACT

Current rates of investment in the Eastern Cape Province of South Africa are insufficient to drive substantial economic growth. These rates have not changed significantly from 1995 to date. This study examined the reasons for low investment rates in the Eastern Cape Province in the post-democratic era by both the private and public sectors and explored the hindrances to attracting investment. Its examination of trends and prospects informed the study's recommendations to address the current situation. A mixed methods research methodology that incorporated econometrics was employed to calculate the investment gap and the investment required to close this gap.

The quantitative research analysis results indicated that; there is an investment gap, low investment and a dire lack of infrastructure, which discourages investment in rural and urban areas in the Eastern Cape.

The qualitative research analysis results indicated that: the province lacks adequate infrastructure, an integrated investment model and strategy as well as poor political leadership at provincial and local levels were significant contributors to low investment rates.

The econometrics analysis, indicated that an investment rate of 11.05% of the province's Gross Domestic Product is required to close the current investment gap.

Some policy implications of these three results are that in advancing investment in the province, the foremost priority should be infrastructure investment which must be underpinned by intelligent public sector investment. Amongst other priorities there is an urgent need to strengthen the province's political leadership and administration.

Key words: Gross Fixed Capital Formation; Gross Domestic Fixed Investment; Foreign Direct Investment; Investment; Eastern Cape Province; South Africa.

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CHAPTER 1 INTRODUCTION AND OVERVIEW OF THE STUDY

This chapter presents the background to the study, an overview of the research and its focus, and the research problem, objectives and questions. It highlights the study's contribution to knowledge as well as the structure of the thesis. The chapter ends with a summary.

1.1. BACKGROUND

The background to this study is presented in two sections to highlight the issues relating to South Africa (SA) as a whole and the Eastern Cape (EC) Province as the focus of the study.

1.1.1. THE SOUTH AFRICAN CONTEXT

The long-run economic growth rates of advanced and emerging economies are to a large extent determined by investment spending (Saville, 2015). South Africa's investment spending as a percentage of Gross Domestic Product (GDP) increased from 15.4% in 1994 to 19.8% in 2015, positioning the country at number 116 in the world investment rankings. This reflects a slow but steady increase compared to the global average investment value of about 21.76% of GDP. South Africa is thus about 2.25% short of the world average (Economywatch, 2015). The country's investment rate falls short of the required to achieve the objectives of the National Development Plan's (NDP) Vision 2030, which calls for an economic growth rate of approximately 5.4% (Saville, 2015).

In 2009, the South African government prioritised infrastructure investment which has been heavily funded by debt (Treasury, 2015). Government debt increased enormously from 2009 to 2015 as the state funded major infrastructure developments such as the Medupi Power Station, N2 roads constructed by South African National Roads Agency Limited (SANRAL), and the Kusile Power Station, to mention but a few. As a result, total public sector debt for the year 2014/2015 stood at 61.9% of GDP. This is inclusive of gross government debt, non-financial state owned companies and local government (Treasury, 2016). Public investment spending in SA has moved at a very slow pace despite the enormous public sector investment budget estimated at

R844.5 billion for the 2012/13-2014/2015 medium-term expenditure framework (DBSA, 2012).

Gross fixed capital formation (GFCF) refers to a net increase in physical assets (investment less disposals) within the measurement period (Kuznets, 2016). The experience of developed countries has shown that economic growth is highly dependent on the rate of total GFCF (also referred to as Gross Domestic Fixed Investment (GDFI)¹ (Donsbusch, Fischer, & Startz, 2014). GFCF encompasses three types of investment: (1) non-residential investment, which represents expenditure by firms on capital goods such as tools, machinery, and factories; (2) Residential investment, which represents expenditure on residential structures, and residential equipment owned by property owners and rented to tenants; and (3) a change in firm inventories over a given period. These three types of investment are generally categorised in two major components: (1) fixed investment plus (2) inventories. (UNCTAD, 2014b) describes GFCF as encompassing land improvements (fences, ditches, drains); plant, machinery, and equipment purchases; and the construction of roads and railways as well as schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings.

In 2011, SA's total GFCF was about R349 billion, of which 15% was contributed by general government, 23% by public corporations and 62% by private business enterprises (Quantec, 2016). The country's average GFCF stood at around 19% of GDP from 1995 to 2013, and was forecast to rise to an average of about 20% in 2019 (WorldBank, 2014), while Investec forecast 21% (Kaplan, 2013), Table 1-1 below details the forecasts.

Table 1-1: Forecasts of GFCF as a Percentage of South Africa's GDP

Year	2012	2013	2014	2015	2016	2017	2018
Percentage	19.9%	20.4%	20.8%	21.2%	21.7%	22.2%	22.7%

Source: Investec, 2014

¹ This thesis consistently uses "Gross Fixed Capital Formation – GFCF ".

The NDP also pointed to low investment spending trends in SA from 1995 to 2012, and envisioned increasing it to about 30% of GDP by 2030. This is in line with the classical growth model, which indicates that high growth economies usually invest 30% - 35% of their GDP (Donsbusch et al., 2014) .

The following sub-section provides a brief overview of GFCF in the EC, which is the focus of this study.

1.1.2. THE EASTERN CAPE CONTEXT AND ITS SALIENT FEATURES

The EC Province is located on the southern and south-western part of the Indian Ocean coastline and is surrounded by Free State in the east, KwaZulu-Natal in the south and the Western Cape in the west. Its northern border is with the independent state of Lesotho. The province covers a total area of 168 966 km², the second largest in SA. In 2015, its population stood at approximately 6 916 200, the third largest in the country. Figure 1-1 below shows SA’s provinces and the location of the EC.



Figure 1-1: Map of South Africa’s provinces with the Eastern Cape circled

Source: Cropped from the Atlas book of maps

Figure 1-2 below shows the EC's district, metro and local municipalities.



Figure 1-2: Eastern Cape map showing district, metro and local municipalities

Source: Cropped from the Atlas book of maps

The EC's GFCF accounted for about 16% of provincial GDP compared to SA's figure of 19% of GDP in 2010, which is the year the country experienced increased fixed investment related to its hosting the Soccer World Cup. The rates have not changed significantly since 1995. The EC's GFCF grew at a low rate, with average growth of around 4% from 1995 to 2015. Figure 1-3 below shows that it stood at around 6% of provincial GDP in 1996, declining to 2% in 2002, then rising to a peak of about 17% in 2004 before declining to around 5% to date; the best years for the province when GFCF increased to double digits were 2003, 2004, 2005 and 2007.

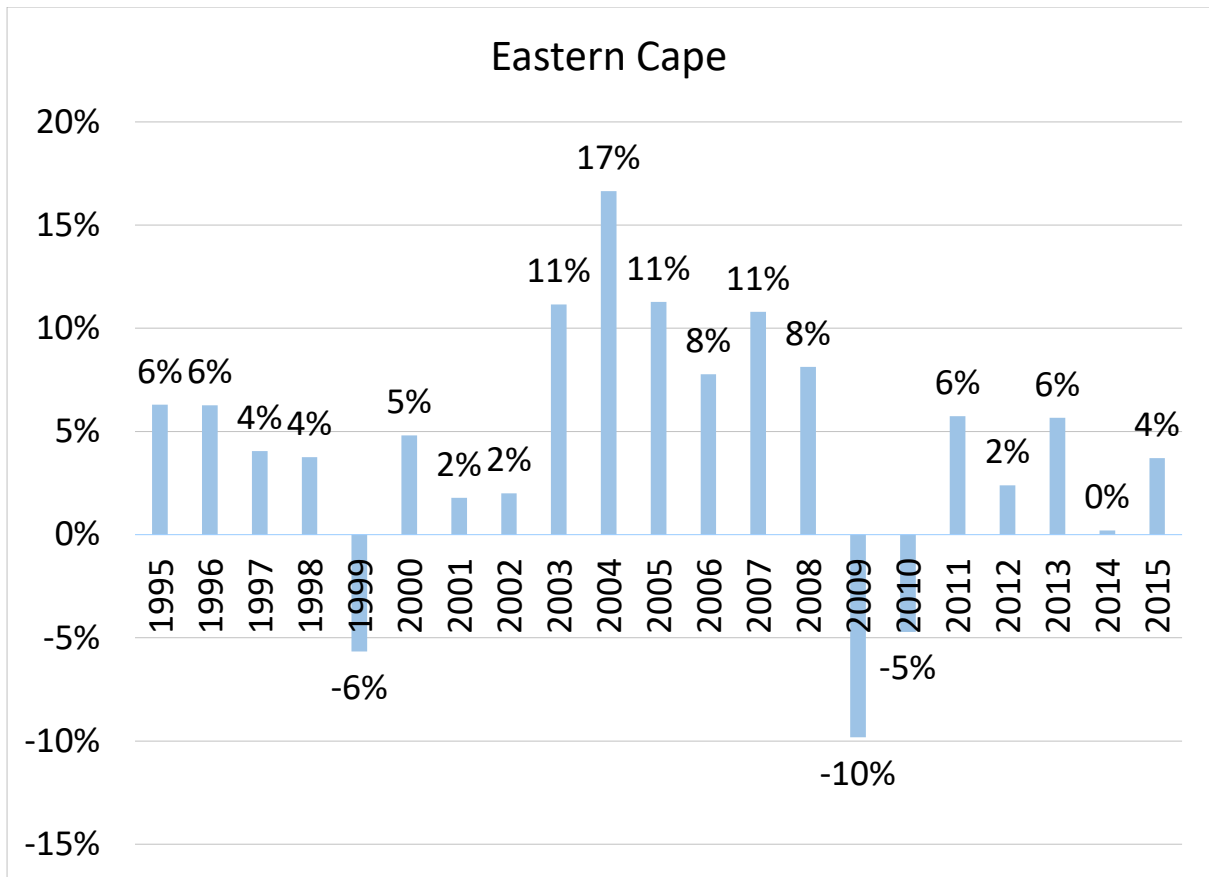


Figure 1-3: Annual growth rate of Eastern Cape GFCF year on year (1995 - 2015)

Source: Computed by the author using Quantec Data

The province has tended to receive a lower share of investment in economic infrastructure from both the private sector and public corporations, explaining its poor regional competitiveness (Mike, 2013). The estimated poverty level is as high as 70.6% and unemployment stands at 30%. The EC makes an average contribution of 7.7% to the national economy and average provincial economic growth is at a mere 1.1% (StatsSA, 2015).

Table 1-2 shows that, the EC's GFCF grew by about 4% from 1995-2015 compared to the country as a whole and all the other provinces that recorded growth rates of 5%-6%.

Table 1-2 : Average GFCF Growth Comparison (1995-2015)

South Africa	5%
Free State	6%
North West	6%
Gauteng	6%
Limpopo	6%
Northern Cape	5%
KwaZulu-Natal	5%
Mpumalanga	5%
Eastern Cape	4%

Source: Constructed by the author

GFCF trends from 1995 to 2015 are detailed in tables 1-3 and 1-4 below. These are shown in 2010 constant prices and in Rand value. In all these years, the EC lagged behind. The last column of table 1-4 shows the percentage contribution of each province to SA as a whole.

Table 1-3: GCFC of SA & Provinces (1995-2006)

SA & Provinces	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
South Africa	246475.88	264854.91	277523.21	287318.27	267327.18	277302.45	284715.70	297853.89	326128.36	367957.25	410102.00	460014.14
Western Cape	34474.89	36751.01	38019.48	38978.61	36288.42	37185.47	38292.07	39151.06	42966.15	50995.59	58756.66	63965.93
Eastern Cape	19025.60	20218.62	21036.95	21828.44	20593.69	21584.91	21969.30	22410.76	24912.23	29057.19	32332.15	34847.50
Northern Cape	5674.56	6089.07	6693.72	6986.67	6450.34	6594.79	6500.63	6934.93	7390.51	7550.47	8175.89	9390.54
Free State	13376.53	15824.34	16568.92	16219.42	15385.47	15764.15	15683.68	16848.27	18280.41	20267.88	22210.09	25451.54
KwaZulu-Natal	42297.34	45732.04	46672.10	48628.82	44093.67	44803.13	46341.45	47883.25	52190.67	60017.16	67868.00	74726.91
North West	13558.91	15794.29	16887.85	17305.44	16208.07	17022.87	17507.34	18532.38	20421.32	20700.58	21887.17	26387.07
Gauteng	80473.85	85928.70	91562.16	96096.88	89433.02	94243.39	96331.79	100344.59	111010.70	128572.84	145026.01	160544.71
Mpumalanga	23075.30	23175.50	22804.79	22958.73	21697.55	22396.59	23141.81	24808.38	26318.92	27550.55	29352.20	35358.85
Limpopo	14518.90	15341.35	17277.25	18315.26	17176.96	17707.15	18947.63	20940.28	22637.46	23244.98	24493.81	29341.10

Source: Constructed by the author

Table 1-4: GFCF of SA & Provinces (2007-2015 & GFCF share)

SA & Provinces	2007	2008	2009	2010	2011	2012	2013	2014	2015	% GFCF share
South Africa	523305.78	590407.04	550987.37	529431.37	558755.78	573309.30	613197.24	622661.78	638396.49	
Western Cape	71312.28	78501.77	71118.78	67686.70	72058.76	73361.24	79016.15	79525.22	80890.12	13%
Eastern Cape	38612.14	41751.14	37650.81	35877.89	37935.98	38844.54	41044.55	41129.55	42653.17	7%
Northern Cape	10899.34	12750.05	12701.23	11873.59	12454.15	13222.88	14257.88	14945.32	15009.33	2%
Free State	29145.85	33964.79	32559.80	31880.97	33651.66	35338.43	37908.05	38993.28	39525.84	6%
KwaZulu-Natal	84228.09	94633.92	85701.08	83227.72	89471.79	92576.00	100172.55	102351.70	104504.13	16%
North West	31091.00	36425.10	36203.89	34254.22	36004.22	35220.94	37695.60	36422.37	37193.66	6%
Gauteng	181642.16	203764.62	186418.38	179453.25	188128.99	193239.76	204600.64	207710.81	214745.27	34%
Mpumalanga	41502.15	48171.02	48180.61	47245.09	49648.66	51102.85	55228.18	57096.27	58101.48	8%
Limpopo	34872.78	40444.62	40452.80	37931.95	39401.58	40402.66	43273.63	44487.25	45773.50	7%

Source: Constructed by the author

The investment trends from 1995 to 2015 clearly reflect that the EC had lower investment rates than the country as a whole. South Africa's GFCF increased to 19.33% in 2013 (Coega, 2015; Makgetla, 2016).

In 2015, the EC Department of Economic Development, Environmental Affairs and Tourism (DEDEAT) announced an investment of about R4 billion in selected sectors, including automotive, manufacturing, logistics, and renewable energy. However, more than half of this amount was allocated to the two metros (Nelson Mandela Bay and Buffalo City), with the remainder shared among other municipalities with less detailed distribution plans and time frames (Eastern Cape Economic Development & Treasury, 2014) – See Table 2-4 in Chapter 2.

The EC has a long history of failing to productively utilise its resources to promote further economic opportunities (Sender, 2016). With a budget of R3.5 billion (6.6% of the provincial budget), the province spent less on infrastructure than other provinces in 2015/2016 (Makgetla, 2016). Furthermore, the investment allocation from the provincial budget was only 7% of public sector investment (Somyo, 2016). The current level of investment is not only insufficient to drive much-needed economic growth in

this province, but such investment is also inequitably and unevenly distributed amongst the municipalities.

Investment is traditionally financed by budget allocations and grants channelled to municipalities from national government as well as small private sector investments. However, investment tends to take place in silos and is sporadic, hampering its effectiveness. Low levels of provincial investment are reflected in the high unemployment rates in the province, coupled with high levels of outward migration to other provinces. The province is thus in dire need of GFCF to promote employment creation and reduce outmigration which reduces its skills base (E. C. P. Commission, 2013). Sustained economic growth is required as well as high levels of investment. As shown above, the EC's economic indicators have not changed significantly since 1995; sound strategies are thus required to improve investment rates (Mike, 2013).

For the purposes of this study, the researcher consulted with provincial research institutions and key provincial government departments to determine the extent of the problem. Stakeholders agreed that the current investment model is not working. This study thus proposes a new investment paradigm. GFCF is a determinant of both productivity and growth; increased GFCF leads to increased economic growth and the role of investment cannot be overemphasised.

The other way to expand GFCF is through inward foreign direct investment (FDI), that is regarded as a strong pillar in advancing economic growth in host countries (Das, 2014). However, provinces like the EC find it difficult to attract FDI because of their location and poor economic infrastructure.

To grow, SA and the EC need to bridge the gap between the public and the private sectors. What complicates the problem further is the fact that although growth is a political responsibility, it is mainly the private sector that achieves it; the two sectors are thus dependent on each other. This is particularly true in a mixed economy like SA. Confidence and trust therefore need to be built between the government and the private sector (Landman, 2013).

1.2. OVERVIEW OF THE STUDY

This study emerged from the Eastern Cape Planning Commission's (ECPC) socioeconomic diagnostic process of cascading the NDP to provincial level. The following issue was raised in the socioeconomic development discussion document: "ECPC needs to understand why our rates of private investment have been low, and what can be done to increase it." The researcher expanded the question to include both the public and private sectors.

In conceptualising the research study, the researcher conducted exploratory consultations with stakeholders, researchers and experts in the province. The feedback provided the motivation for this study. Questionnaires and interviews were used to gather data from stakeholders to understand the extent of the investment gap and challenges pertaining to low investment in the province. Econometrics analysis was employed to calculate the investment gap and for investment forecasting. The research methodology was approved by the University of KwaZulu-Natal's Higher Degrees Committee and ethical clearance was granted by the University.

The study's main objective was to calculate the growth rate required to close the EC's investment gap in order to enable sustained economic growth and development. The Provincial Development Plan (PDP) flags investment as a key issue in a growing, inclusive and equitable economy. This study focused on the GFCF component of the EC's regional GDP. It aimed to understand why the province's investment rates in relation to both the public and private sectors have been so low post-democracy. More specifically, the study explored hindrances to GFCF and what can be done to increase investment in the province. It also aimed to project the required GFCF to meet the NDP's targets.

The study will assist the province to: (1) Develop a coherent investment model that will boost GFCF in the EC; (2) Implement, monitor and evaluate the proposed investment model; (3) Pursue public and private sector investment collaboration; (4) Attract development finance; and (5) Develop strategies to address current investment constraints.

1.3. RESEARCH FOCUS

The study is located in the EC Province, which is one of SA's nine provinces. The province is made up of two former 'independent' states (Transkei and Ciskei) and towns that were part of the former SA (Port Elizabeth, East London, King Williams Town and Queenstown, to name but a few). In focusing on GFCF in this province, the study sought to establish the expectations of the public sector, that includes provincial departments, state owned enterprises (SOEs), metros, and district municipalities as well as the private sector as pivotal players in advancing rapid investment.

The EC is confronted by a conundrum of high levels of poverty and unemployment and a low contribution to national economic growth, coupled with inefficiencies on the part of the key provincial departments of Economic Development, Education, Health and Local Government and Traditional Affairs (Houston, 2012).

The province is termed as being backward. This can be attributed to the discovery of diamonds and gold in the 19th century and the emergence of the mining core of the South African economy in the 20th century. The EC lacked mineral resources and thus became a supplier of unskilled labour through the migrant labour system. The establishment of Bantustans that mainly existed to supply labour to other areas or provinces, land dispossession and frontier wars exacerbated the province's backwardness in many respects (Mike, 2013). Transition to a democratic state has not changed economic concentration in former South African towns, and investment in former 'homelands' is grossly inadequate due to inherited backlogs. The province's economy only grew by 1.1% in 2015, compared to the national growth rate of 2.6% (StatsSA, 2015). It thus has a pressing need to increase investment and become a significant contributor to national growth.

1.4. RESEARCH PROBLEM

As noted earlier, the EC has tended to receive a lower share of investment in economic infrastructure from both the public and private sectors; this has served to reproduce the province's poor regional competitiveness (Lewis, 2013). The researcher calculated annual investment growth of 1.5% from 1995 to 2015, with no significant

annual changes. The current growth rate of investment is insufficient to drive economic growth (Mike, 2013).

The National Planning Commission (NPC's) diagnostic process recognised that SA suffers from low investment without explaining the determinants of investments, and set a 30% investment target in the NDP (Mike, 2013). The EC DEDEAT's 2014 socio-economic review and outlook indicates that a GFCF of between 20% and 25% of GDP would be a suitable target to achieve the required expansion of infrastructure and productive capacity. While the EC Vision 2030 PDP also notes low levels of investment, it does not set an investment target. Thus, it does not address the issue raised by the ECPC socioeconomic development discussion document: "ECPC needs to understand why our rates of private investment have been low, and what can be done to increase it."

It is clear that the province has an investment gap. Furthermore, there is no clarity on the level of investment required to drive economic development in the province.

This study aimed is to understand why public and private investment rates have been so low in the EC in the post-democratic era and explored the hindrances to attracting investment. Based on an analysis of trends and prospects in the province, it also sought to make recommendations to increase investment and to forecast the investment rate required to achieve the NDP's target.

1.5. RESEARCH OBJECTIVES

This study analysed GFCF in terms of public and private investment and FDI in the EC. It examined investment trends and prospects, the investment gap, the role of political leadership, and the province's investment framework and its effectiveness. The study's objectives were to:

- (1) Analyse the determinants of GFCF
- (2) Determine what can be done to attract more investment to the province
- (3) Analyse the factors that contribute to low investment (the investment gap) in the province

- (4) Propose an investment model that could close the investment gap in the EC
- (5) Identify the role of political leadership in attracting investment

1.6. RESEARCH QUESTIONS

- (1) Why has the rate of investment been low in the EC, and what can be done to increase it?
- (2) What factors contribute to low investment in the province?
- (3) Is there an investment gap in the province?
- (4) What model would be appropriate to fill the investment gap in the EC?
- (5) Is there a relationship between political leadership and investment growth?

1.7. CONTRIBUTUION TO KNOWLDGE

The purpose of research is to generate new knowledge, invoke new thinking and contribute to the school of thought that one belongs to (Cassim, 2011). In this case, the school of thought is fostering a new investment paradigm in a least developed province. The researcher identified the problem of low investment trends in the EC, *ceteris paribus* and the study's objective was to assist the province in disentangling the problem and suggest strategies to achieve this. Thus, the study thus offers new knowledge to stakeholders and policy makers in SA, the EC provincial government, municipalities (district, local, and metros), and the private sector and contributes to scholarly research.

The study is one of relatively few conducted in the EC that focus on GFCF using primary data across the public and private sectors in the province. Provincial stakeholders will benefit from its identification of the challenges involved in attracting new investment. Furthermore, the study offers recommendations that will enable the private and public sectors, as well as the financial or banking sector to devise strategies to address this issue not only in the EC but also in SA as a whole.

The study also raises pertinent issues that such stakeholders should consider in dealing with rural or previously disadvantaged provinces such as the EC. Finally, it identifies the role that different parties can play in closing the investment gap in the province.

1.8. OUTLINE OF THE STUDY

The study is presented in seven chapters:

Chapter one presents the background to and overview of the study, the research focus, and research problem, objectives and questions.

Chapter two comprises a literature review on economic growth models; private investment theories; FDI theories and determinants; public investment and resource allocation and the empirical literature that covers three broad topics: developed countries, developing countries, and the South African context with a focus on the EC.

Chapter three discusses the methodology employed to conduct the study, and data collection and analysis.

Chapter four presents and discusses the study's quantitative findings.

Chapter five presents and discusses the qualitative findings.

Chapter six presents the econometric results and analysis.

Chapter seven concludes the thesis with a conclusion, recommendations, and policy implications. It recaps the research objectives and examines if these were achieved.

1.9. SUMMARY

This study focused on the GFCF component of the EC's GDP. This introductory chapter presented a background to and overview of the study, and the research focus and research problem as well as the study's objectives and research questions. It also discussed the study's contribution to knowledge.

Gross Fixed Capital Formation was examined in the South African context, with a focus on the EC. Studies have shown that GFCF is a catalyst for economic growth. Low GFCF rates over the years have stunted economic growth in the EC as well as other provinces.

The following chapter presents a review of the literature relevant to this study.

CHAPTER 2 LITERATURE REVIEW

This chapter examines the literature on economic growth and its relationship with GFCF. It is divided into seven sections. Section 2.2 examines theories of economic growth and section 2.2 investigates the role of GFCF in such growth. Sections 2.3 and 2.4 review the literature on private investment and FDI, respectively, as well as their determinants. Section 2.4 focuses on public investment and resource allocation, while section 2.6 reviews the empirical literature on developed countries, developing countries and SA, with a focus on the EC. Finally, section 2.7 summarises the chapter.

2.1. ECONOMIC GROWTH THEORIES AND MODELS

Models represent consistent economic analysis either visually or mathematically (De Mooij, 2005). They have high levels of integrity because they are mathematical and conform to the rigorous standards of logic inherent in mathematics. Mathematical models must begin with precise assumptions about economic activity, as the conclusions and insights offered by the model are restricted or even determined by initial assumptions (Evans, 2015). Therefore, if the initial assumptions are wrong, misleading, or incomplete, despite the logical integrity of the model, its conclusions will be flawed. Thus, while models are useful and indeed indispensable in economic analysis, they suffer limitations (Evans, 2015). They guide researchers' thinking, help them to organise their thoughts and explain theories. However, since they are based on abstractions, they are different from the reality they purport to represent. They thus offer guidance and insight, but not the final word (Evans, 2015).

Economic theories generally address the process of development, as well as the series of successive economic growth stages which all countries must experience (Todaro & Smith, 2015). This section examines economic growth models that have been and continue to be employed by developed and developing economies around the world. Economic development theories are built on the assumption that every nation aims to develop its citizens. The section covers the Harrold-Domar, neoclassical and new (endogenous) growth models.

2.1.1. HARROD-DOMAR GROWTH MODEL

The Harrod-Domar growth model is attributed to Sir Roy Harrod, who developed it in 1939 and Eyvey Domar that expanded on the model in 1946. It states that the rate of economic growth is dependent on the level of savings and the capital output ratio. For a nation's economy to prosper, it must invest a certain portion of its natural revenue in the expansion of fixed capital stock (Todaro & Smith, 2015). The Post Keynesian model is regarded as a continuation of the Harrod-Domar growth model. It posits that growth is the outcome of the equilibrium between savings and investment. A country with a high level of savings is able to provide funds for firms and the government to borrow and invest. Investment increases the capital stock of an economy and generates economic growth through increased production of goods and services. The Harrod-Domar growth model emphasises the importance of net investment, which is defined as a change in the capital stock, and is a key to economic growth (Giang & Pheng, 2011).

It is imperative that the EC invest in economic infrastructure such as roads, electricity, and communications that support other physical capital, increase capital stock and expand national output (Giang & Pheng, 2011; Kostakis, 2014).

The productive capacity of an economy is usually described in terms of full utilisation of the factors of production, mainly labour and capital (Giang & Pheng, 2011). One way to expand production and grow is to invest in capital stock, and human and physical resources (Giang & Pheng, 2011).

The capital output ratio measures the productivity of an investment. If this ratio decreases, the economy will be more productive; thus, higher output is generated by fewer inputs. Again, this increases economic growth.

Rate of growth (Y) = Savings (s)/ capital output ratio (k).

The model suggests that developing countries that aim to achieve higher economic growth need to encourage savings, and support technological advancements to decrease the capital output ratio. The Harrod-Domar model provides a framework for economic development and is an important influence on government policies.

The model was designed to establish the rate of income growth that would induce equilibrium between savings and investments (Adrino, 2013). Its fundamental variables include capital accumulation and the ratio of increased output to increased investment (Nafziger, 1997) Domar's analysis of growth did not guarantee full employment, even in the presence of full utilisation of capital stock, hence making allowance for Harrod's natural growth rate.

The Harrod-Domar growth model provides a succinct analysis of the development challenges confronting less developed countries, especially with respect to production techniques (Lall, 1997). Developing countries can alter and modify the model to fit their conditions and adjust the capital-labour ratio when they shift towards more labour-intensive production without compromising output levels (Thirlwall, 2003).

However, the Harrod-Domar growth model failed to detail ways of achieving steady growth to reach its potential level. This led to the introduction of other growth models that employ different economic variables, including the neoclassical and new endogenous growth models (Adrino, 2013).

2.1.2. NEOCLASSICAL GROWTH MODEL

The neoclassical growth model developed by Robert Solow and Trevor Swan in 1956 builds on the Harrod-Domar model. It dominated economic thought for three decades because it offers a cogent explanation of real world conditions and it is mathematically elegant (Donsbusch et al., 2014; "Protection of Investment Act , 2015," 2015; Todaro & Smith, 2015).

The neoclassical growth theory attributes long-run growth to technological progress but does not explain the economic determinants of such progress (Davila, Hong, Krusell, & Ríos-Rull, 2012). The model focuses on growth opportunities offered by the accumulation of physical and knowledge capital, and savings decisions. The analysis starts by assuming that there is no technological progress. This implies that the economy reaches a long-run level of output and capital called the steady-state equilibrium. The steady-state equilibrium is a combination of output per worker and per capita income where the economy will remain at rest, that is, per capita economic variables remain stable, $y = 0$ and $k = 0$. The model proceeds in three broad steps. Firstly, it shows how various economic variables determine the economy's steady

state. Secondly, it demonstrates the transition from the economy's current position to its steady state and finally, technological progress is added to the model (Davila et al., 2012; Waller, 2011).

The Neoclassical Growth Model theory produces four results:

- The growth rate of output in the steady state is exogenous; in this case, it is equal to n . It is therefore independent of the savings rate s .
- The increase in the savings rate does not affect the steady state growth rate but it does increase the steady level of income by increasing the capital-output ratio.
- The theory assumes that the steady state is exogenous and that it is the same across all countries (Donsbusch et al., 2014).
- The final prediction of the neoclassical theory is that of convergence: if two countries have the same population growth, the same savings rate, and access to the same production function, they will eventually reach the same level of income. It thus posits that, poor countries are poor because they have less capital, but if they save at the same rate as rich countries and have access to the same technology, they will eventually catch up.

Furthermore, the model assumes that, if countries have different levels of income in the steady state, but their rates of technical progress and population growth are the same, their steady state growth rates will be the same (Barro, 2012; Carboni & Medda, 2011).

Critiques of this model are based on its prediction that economic growth and savings rates should be uncorrelated in the steady state (Adrino, 2013). The data clearly shows that savings rates and growth positively correlate across countries.

The neoclassical model's proposition that increased investment in knowledge increases growth is a key to linking higher savings rates to higher equilibrium growth rates (Donsbusch et al., 2014). For the EC to increase investment, it needs to increase its investment in knowledge in order to promote growth.

2.1.3. NEW (ENDOGENOUS) GROWTH THEORY

The endogenous growth theory relies on constant returns to scale to accumulable factors to generate on-going growth. The microeconomics underlying this theory emphasize the difference between social and private returns when firms are unable to capture some of the benefits of investment (J. Y. Lin, 2011). Current empirical evidence suggests that this is not a good model to explain international differences in growth rates (Donsbusch et al., 2014).

Initial excitement about the new growth theory has faded, as careful analysis and empirical evidence have not always supported this elegant theory. It seems hardly credible that the long-run growth rate is unrelated to the savings rate. Scholars note that, untangling how they are related has been harder than economists once thought, as has the relation between institutions and growth (Donsbusch et al., 2014).

2.1.4. APPLICATION OF ECONOMIC GROWTH MODELS TO EASTERN CAPE PROVINCE

These models offer clear pointers, particularly for developing economies. They suggest that if developing countries want to achieve higher economic growth, government needs to encourage savings, and support technological advancements to decrease the capital output ratio. The Harrod-Domar model provides a framework for economic development and has been an important influence on government policies (Giang & Pheng, 2011).

Economic growth mainly depends on the rate of technological progress. In turn, technological progress depends on the level of savings, particularly that directed towards human capital (Donsbusch et al., 2014). The endogenous growth theory posits that investment in human capital, innovation and knowledge, are the key contributors to economic growth. Practical examples are subsidies for research and development or education incentives (Faggian, Partridge, & Malecki, 2016).

All the models discussed above point to weaknesses in all the key areas that could have contributed to the EC's economic growth. The province is lacking heavily in savings, and high unemployment and poverty levels, as well as low economic growth contribute to its poor economic environment.

Technological advancements in key departments could generate revenue for the province that has lost revenue opportunities in the Departments of Transport (traffic) and Health. The problem mainly lies in the traffic department's poor technology and customer service, and a lack of skilled personnel. The EC is still battling to collect revenue from the Department of Health. It thus needs to invest in technology in order to enhance revenue collection and it needs to become more proactive in pursuing revenue opportunities.

Investment in human capital cannot be over emphasised. The low matric pass rate, and lack of skills development among government institutions as well as poor collaboration between the public and private sectors and tertiary institutions are hampering progress in the EC. Savings, investment in technology and human capital development are required for the province to prosper.

2.1.5. ECONOMIC GROWTH THEORIES AND MODELS SUMMARY

This section examined the Harrod-Domar, neoclassical and new (endogenous) economic models, their logic and their prescriptions for economic growth. It also discussed critiques of these models.

All three models contain propositions that the EC could draw on to achieve higher economic growth. In particular, the provincial government needs to encourage savings to support and advance investment.

2.2. THE ROLE OF GROSS FIXED CAPITAL FORMATION (GFCF) IN ECONOMIC GROWTH

Gross fixed capital formation is defined as a net increase in physical assets (investment less disposals) within a measurement period (Kuznets, 2016). It includes expenditure on land improvement (fences, ditches, drains); and plant, machinery, and equipment purchases (including the construction of roads, railways and private residential dwellings and commercial and industrial buildings). Disposal of fixed assets is subtracted from GFCF; it essentially comprises net investment and measures the net increase in fixed assets of a particular country. Gross fixed capital formation is a component of the expenditure method used to calculate GDP (Tejvan Pettinger, 2012).

Developing countries often devote a higher percentage of GDP to investment, whereas countries with rapid economic growth are investing more in GFCF. China is a classic example; the country has one of the highest GFCF rates in the world (Tejvan Pettinger, 2012).

- Gross fixed capital formation is a prerequisite for an increase in physical capital stock together with investment in social and economic infrastructure. It takes two forms: gross private domestic investment and gross public domestic investment. Gross domestic investment is equivalent to gross fixed capital formation plus net changes in the level of inventories or stock. Gross public investment includes investment by government, public entities and municipalities and agencies. Capital formation enables the production of tangible goods (plants, tools, machinery) and/or intangible goods (high standards of education, health, scientific traditions and high impact research). Domestic investment and public investment raise national output and income (Shuaib & Ndidi, 2015).

A lack of economic infrastructure (power, a poor roads network, and poor health and education facilities) is responsible for a decline in capital formation (Emeka, Idenyi, & Nweze, 2017).

- Gross fixed capital formation is an important determinant of economic development. Increased GFCF leads to increased production, which, in turn, creates more jobs. It enhances technological progress, which promotes large-

scale production, specialization, and improved production processes for the growing labour force. An increase in GFCF also leads to market expansion (Shuaib & Ndidi, 2015; Ugochukwu & Chinyere, 2013).

- Furthermore, GFCF is a measure to determine gross net investment (acquisitions minus the disposal of fixed assets by enterprises, government and households in a particular period).

However, GFCF does not account for the consumption depreciation of fixed capital and excludes land purchases. It is a component of the expenditure approach to calculating GDP (Jhingan, 2012; Pradhan, 2017). It usually results from acquisition of new factories along with machinery, equipment and all productive capital goods. Capital formation is equivalent to an increase in the physical capital stock of a nation with investment in social and economic infrastructure. As noted above, GFCF can be classified into gross private domestic investment and gross public domestic investment. Gross public investment includes investment by government and public enterprises while gross private domestic investment involves investment by private enterprises. Gross domestic investment is equivalent to gross fixed capital formation plus net changes in the level of inventories. Economic theories have shown that capital formation plays a vital role in economic growth (Beddies, 1999; Gbura and Thadjimichael 1996, Gbura, 1997). This view is termed market fundamentalism and is supported by the work of Youopoulos and Nugent (1976) cited in Bakare (2011).

Gross fixed capital formation thus combines investment by the public and private sectors. Development is not possible without GFCF, as, without adequate investment, an economy cannot grow to its full potential. Hence, investment is often referred to as “the engine of growth” (Roux, 2011). Investment in physical or human capital is a major source of economic growth (Harjes & Ricci, 2005b). Investment supports economic growth, enhances the quality of life and is important for national security (KZNTreasury, 2013). Empirically, there is a strong correlation between investment and economic growth, and all growth models predict a positive response of growth to investment (Harjes & Ricci, 2005b). Growth models like those developed by Romer (1986) and Lucas (1988) predict that an increase in capital accumulation will lead to a permanent increase in the economic growth rate (Jhingan, 2012).

2.2.1. GROSS DOMESTIC PRODUCT AND GROSS FIXED CAPITAL FORMATION

The GDP or Gross Domestic Income of a country or province is a summation of the total market value of spending on final goods and services in a particular year (Arnold, 2010). Four major components are used to calculate GDP as represented in the following equation 1.

$$\text{GDP} = C + I + G + (X - M) \quad (1).$$

Where:

C denotes personal consumption expenditure on durable goods, non-durable goods, and services;

I denotes the sum of gross private domestic investment in capital and physical goods.

G denotes government consumption expenditure, and

X – M denotes net exports equalling the sum of exports minus imports.

This study focuses on the sum of the gross private domestic investment component of GDP in the dependent sectors (private and public) of the South African economy at large, and the EC in particular.

Gross fixed capital formation (investment) calls for funding that may come from four different sources: savings, government surplus, trade surplus and debt. Investment funding sources can be shown theoretically and empirically, as illustrated below.

2.1.1.1 Funding from savings

Funding from savings enhances sustainable economic growth through its effect on investment, and provides a means of financing GFCF. An unmovable economic reality is that investment spending can only be funded by savings (Saville, 2015). The endogenous growth model states that GFCF depends on savings, particularly investment directed towards human and technological progress and physical capital.

$Y = C \rightarrow$ zero savings

$Y > C \rightarrow$ savings

The desirable economic scenario is when income is greater than consumption; the surplus can be saved and utilised for fixed capital investment.

2.1.1.2 Tax revenue

Taxation is the other form of funding. There are three situations:

Tax revenue = government expenditure \rightarrow balanced budget

Tax revenue > government expenditure \rightarrow budget surplus

Tax revenue < government expenditure \rightarrow budget deficit

The desirable economic scenario in any country is when tax revenue is greater than government expenditure. The government then has surplus revenue that it can utilise for gross fixed capital investment.

2.1.1.3 Export = Imports= $X > M$ - Trade surplus

If a country's exports exceed its imports, the remainder is net exports, which means that more resources are available for investment.

2.1.1.4 Debt funding

When all else fails, the other form of financing investment is debt; this is the South African reality. The country has a low savings rate, consumption is higher than income, imports exceed exports and government expenditure is higher than tax income, leaving the country with no option but to use debt to finance GFCF.

$$I = f(Y, C)$$

$$I = F[Y_d, C, G, NX, Dt]$$

$$Y - C = I$$

$$S = I$$

$$O, Dt = I$$

2.2.2. POLICY TARGETS, THE INVESTMENT GAP AND THE REQUIRED TARGET TO CLOSE THE EC INVESTMENT GAP

Generating sufficient fixed capital investment by mobilizing domestic savings increases a country's funding options and reduces reliance on debt to fund investment. Domestic and foreign savings are required to increase investment and enhance economic growth (Todaro & Smith, 2015). (Saville, 2015) analysed the relationship between the investment spending share of GDP and real economic growth in 39 countries from 2001 to 2010 based on World Bank data. The countries included the 34 countries that make up the Organisation for Economic Cooperation and Development (OECD) and the five that make up the BRICS, including SA. The study noted that these countries' economic activities account for more than 95% of global production of goods and services. It indicated that economic growth in SA can be forecast using the following equation:

$$\text{Economic Growth Rate} = (0.31 \times \text{Investment Share of GDP}) - 4.18$$

Where

4.18 is a constant or intercept.

(Saville, 2015) study' finding was that every 1% increase in investment share of GDP is likely to increase economic growth by 0.31%.

Premised upon the above equation, a sensitivity analysis is conducted to approximate targeted economic growth for the EC.

South Africa's NDP sets a growth target of 5.4% (NDP, 2012).

Using this benchmark, we can forecast the EC's target investment share of GDP using the above formula as follows:

$$5.4 = 0.31 \times (\text{Investment share of GDP}) - 4.18$$

$$0.31 \times (\text{Investment share of GDP}) = 5.4 + 4.18$$

$$0.31 \times (\text{Investment share of GDP}) = 9.58$$

$$\text{Investment share of GDP} = 9.58/0.31$$

Investment share of GDP = 30.9%

Thus, if the EC aims to achieve an economic growth rate of 5.4%, it needs to achieve a 30.9% investment share of its GDP.

Assuming that the current level of economic growth is known, we can calculate the current level of investment share of the provincial GDP and compare it to the targeted one to identify the gap in the investment share of the provincial GDP. For EC to see meaningful development it is pivotal that government should priorities investment, particularly on economic infrastructure. The ripple effects of GFCF investment is that for 1% of GDP invested in GFCF can accumulate 1,5% - 2,5% to its GDP. The Chinese government invested at a rate of 30% and above, as a result it was able to impressively lift 205 million people out of poverty, that's is the example EC with our national government should emulate (Fin24, 2017).

Similarly, knowing the current level of the investment share of GDP, we can calculate the current level of economic growth and compare it to the targeted one to identify the gap in the economic growth rate.

The possible investment Gap in the Province

Currently, the EC does not have a clear investment target.

The estimated investment gap using two possible equations is:

Investment Gap when using the NDP target (1)

Investment Gap = Target investment – Current Investment

Investment Gap = 30% - 19 %

Investment Gap = 11%

Investment Gap using the EC Socio-Economic Research Outlook target... (2)

Investment Gap = Target investment – Current Investment

Investment Gap = 25%-19%

Investment Gap = 6%

2.3. PRIVATE INVESTMENT THEORIES

This section focuses on investment theories and the reasoning behind private sector or company investment. It touches on seven investment theories (yourarticlelibrary, 2015).

2.3.1. THE ACCELERATOR THEORY OF INVESTMENT

The accelerator principle states that an increase in a firm's rate of output will require a proportionate increase in its capital stock. Capital stock refers to the desired or optimum capital stock, K . The theory explains why private companies make capital investments. The level of net investment is proportional to the change in output. If the level of output remains constant ($y=0$), net investment would be zero. For net investment to be a positive constant, output must increase continuously (Bernanke, Gertler, & Gilchrist, 1999).

2.3.2. THE FLEXIBLE ACCELERATOR THEORY OR LAGS IN INVESTMENT

The theory is also known as the capital stock adjustment model. Chenery, Goodwin, Koyck and Junankar developed this theory in various forms. However, the most accepted approach is by Koyck. Junankar discusses the lags in the adjustment between output and capital stock. He explains them at the firm level and extends them to the aggregate level. He assumes that, given an increase in demand for output, the firm will first use its inventories and then utilise its capital stock more intensively (yourarticlelibrary, 2015).

The flexible accelerator theory addresses one of the major weaknesses of the simple acceleration principle that capital stock is optimally adjusted without any time lag. In the flexible accelerator theory, there are lags in the adjustment process between the

level of output and the level of capital (Gould, 1968). If the increase in demand for output is large and persists for some time, the firm would increase its demand for capital stock. This is the decision-making lag, and there may also be an administrative lag in ordering the capital (Jorgenson & Siebert, 1968). Capital is not easily available and in abundance in the financial capital market; there is also a financial lag in raising finance to buy capital and in the process, there is a delivery lag between the ordering of capital and its delivery. Koyck's approach assumes that the actual capital stock depends on all past output levels with weights declining geometrically.

The flexible accelerator and naive accelerator and their long-run response of investment to a change in output will be similar. In the case of the flexible accelerator, net investment will increase during several periods before the negative effect of the increased capital stock outweighs the positive effect of further increases in output and ultimately net investment will become zero.

The flexible accelerator theory is a very important contributor to the theory of investment, which solves the problem of lags in investment demand. It incorporates both the effects of lags and depreciation and excess capacity in capital stock adjustment (yourarticlelibrary, 2015).

2.3.3. THE PROFITS THEORY OF INVESTMENT

This theory regards company profits, in particular undistributed profits, as a source of internal funds to finance any investment. Investment depends on profits and profits in turn depend on income generated over a certain period by a firm. Profits relate to the level of current profit and that of the recent past. If total income and profit are high, firms' retained earnings are also high and vice versa. Retained earnings are of great importance for small and large firms when the capital market is imperfect because it is cheaper to use them (yourarticlelibrary, 2015). The cost of capital is low and the optimal capital stock is large; hence, firms prefer to reinvest their extra profit in investment instead of keeping it in a bank in order to buy securities or to give dividends to shareholders (Jorgenson & Siebert, 1968). If a firm's profit falls, it cuts its investment projects; this is the liquidity version of the profits theory.

This theory has been criticised for its assumption that profit is related to the level of current profit and that of the recent past and the possibility that a firm's profit in the

current year or the next few years can measure the profit of the next year or years to come. A rise in current profit may be a result of unexpected changes of a temporary nature and such profit does not induce investment (yourarticlelibrary, 2015).

2.3.4. DUESENBERY'S ACCELERATOR THEORY OF INVESTMENT

In *Business Cycles and Economic Growth*, JS Duesenberry presents an extension of the simple accelerator theory and integrates the profits theory with the acceleration theory of investment (Clark, Greenspan, Goldfeld, & Clark, 1979).

Part of the decline in business investment will be offset by a reduction in business savings; this will reduce the effect of an increase in income on expenditure for some time because investment will decline slowly as capital accumulates, provided there is no further increase in income (yourarticlelibrary, 2015). The system will therefore, be much more stable than a simple multiplier-accelerator system (Jorgenson & Siebert, 1968).

2.3.5. THE FINANCIAL THEORY OF INVESTMENT

Duesenberry developed this theory that is known as the cost of capital theory of investment. The accelerator theory ignores the role of the cost of capital in a firm's investment decisions. It assumes that the market rate of interest represents the cost of capital to the firm that does not change with the amount of investment it makes. This means that unlimited funds are available to the firm at the market rate of interest (yourarticlelibrary, 2015).

The financial theory of investment posits that the supply of funds to the firm is very elastic. In reality, an unlimited supply of funds is not available in any period at the market rate of interest. The theory adds that, as the firm decides on investment spending, the cost of funds (interest rate) rises, requiring more funds. To finance investment spending, the firm may borrow in the market at whatever interest rate for available funding. The sources of funds available to firms are twofold: Retained earnings and borrowing from financial institutions and a decision is made on which to choose based on circumstances.

The criticism of the theory (Meyer & Kuh, 1955) is that firms invest when their capacity is strained, when they are expecting increased demand and when there are high inflows of liquidity. Critiques of the financial theory of investment include:

- Studies on firms' investment behaviour (Meyer & Kuh, 1955) show that when demand expands rapidly, capacity expansion is the most important determinant of business investment during boom periods.

Meyer and Kush found that firms take a longer view of spending, while the financial theory of investment explains the short-run model of investment. Their results indicate that firms primarily invest in capacity expansion during a boom period and their overall level of investment will not fall as much as indicated in Duesnberry's short-run model and when the interest rate rises. On the other hand, firms generally spend most of their retained earnings on technological improvements to reduce costs and advertising to increase their market share (yourarticlelibrary, 2015).

The theory also neglects the role of fiscal policy in investment, which is more effective than monetary policy. A reduction in corporate taxes during a recession can increase investment by firms; in contrast, an increase in tax can reduce investment. Depreciation allowances can also assist in manipulating investment during recessions and booms; the level and changes in aggregate demand influence investment. Expenditure policy and other government measures also affect aggregate demand (yourarticlelibrary, 2015).

2.3.6. JORGENSON'S NEOCLASSICAL THEORY OF INVESTMENT

This theory of investment behaviour is based on determination of the optimal capital stock. The investment equation is derived from the profit maximisation theory of the firm (Jorgenson, 1963).

The flow of net receipts (R) at time t is given by $R(t) = p(t)Q(t) - w(t)L(t) - g(t)I(t)$. Where Q is output and p is its price; L is the flow of labour services and the wage rate; I is investment and q is the price of capital goods (yourarticlelibrary, 2015).

According to (Jorgenson, 1963), demand for investment goods depends on the interest rate. Two alternative continuous paths of capital accumulation are compared depending on the time path of the interest rate. The weakness of this theory is that it

does not provide a very clear economic account of these mathematical results. Jorgenson labels his model as the neoclassical theory of investment but it seems to bear little relationship to the classical theory of investment (yourarticlelibrary, 2015).

2.3.7. TOBIN'S Q THEORY OF INVESTMENT

James Tobin proposed the Q theory of investment which links a firm's investment decisions to fluctuations in the stock market (Hayashi, 1982). His view is that when a firm finances its capital for investment by issuing shares in the stock market, its share prices reflect its investment decisions (Chirinko, 1987). In financing costs, firms must deal with complex and closely intertwined investment, financing, and risk management decisions (Bolton, Chen, & Wang, 2011).

The firm's investment decisions depend on the following ratio, called Tobin's Q:

$Q = \text{Market Value of Capital Stock} / \text{Replacement Cost of Capital}$. The market value of firm's capital stock in the numerator is the value of its capital as determined by the stock market. The replacement cost of the firm's capital in the denominator is the actual cost of existing capital if it is purchased at today's price (Summers, Bosworth, Tobin, & White, 1981). Thus Tobin's Q theory explains net investment by relating the market value of a firm's financial assets (the market value of its shares) to the replacement cost of its capital (shares) (yourarticlelibrary, 2015).

2.3.8. APPLICATION OF PRIVATE INVESTMENT THEORIES TO THE EASTERN CAPE PROVINCE

The theories of private investment regard company profit, in particular undistributed profit, as a source of internal funds to finance investment. Investment depends on profit and profit in turn depends on income generated over a certain period by a firm. Profit relates to the level of current profit and that of the recent past. Companies will invest in the EC if there is policy certainty and the potential of making profit as well as economic conditions that are conducive for business growth.

The province's private sector is very small; hence, the investment level is not growing at a high rate. The EC needs to provide an environment that is conducive for the private sector to expand. Trust between the private and public sectors needs to be strengthened to advance private sector investment.

2.3.9. PRIVATE INVESTMENT THEORIES SUMMARY

This section discussed seven private investment theories, namely, the Accelerator, Flexible, Profits, Duesenberry's Accelerator, Financial, Jergenson's Neoclassical and Tobin's Q. It explained the processes that firms follow before they decide to make human and physical investment.

The theories of private investment identify the key factor that promotes GFCF and investment in general by private entities as company profit, in particular undistributed profit, as a source of internal funds to finance investment. Investment depends on profit and profit in turn depends on income generated over a certain period by a firm. Profit relates to the level of current profit and that of the recent past. Companies will invest in a country where there is policy certainty and the potential to make profit, and economic conditions that are conducive for business growth.

2.4. FOREIGN DIRECT INVESTMENT (FDI) THEORIES AND ITS DETERMINANTS

Foreign direct investment is increasing and is regarded as a strong pillar in advancing economic growth in host countries (Das, 2014). Various theories have been put forward by scholars to explain the determinants of and motivations for FDI (Adrino, 2013). They can be classified into two types:

- Macro-level FDI theories highlight macroeconomic factors and their determinants. The focus is on the country's characteristics that explain FDI inflows and outflows. According to Lipsey (2001), the macro-level determinants that affect the host country's FDI flows include market size, the economic growth rate, GDP, infrastructure, natural resources, and the political situation (Wafure & Nurudeen, 2010; Woldemeskel, 2008).
- Micro-level theories focus on motivations for FDI associated with the firm. These include market imperfections, market power and investment and location theories.

No single theory covers the different types of FDI or the investment made by a particular multinational corporation (MNC) or country. The applicability of a theory differs with the origin of the investment (Nayak & Choudhury, 2014).

FDI in South Africa

Apart from low GFCF, SA has also been experiencing a decline in FDI, which recorded a 24% decline (from R60.6 billion to R 46.46 billion) from 2011 to 2012. The country was Africa's third largest recipient of FDI inflows in 2012 (Moneyweb, 2013).

This section discusses FDI theories, and motivations for and determinants of FDI.

2.4.1. MACRO-LEVEL FOREIGN DIRECT INVESTMENT THEORIES

These are regarded as among the oldest FDI theories. They examine capital flows from countries of origin to host countries through the balance of payments. Foreign direct investment takes different forms ranging from FDI flows, to equity capital, reinvested earnings, other capital and FDI stock (UNCTAD, 2014b). According to (Lipsey, 2001; Lipsey, Sjöholm, & Sun, 2013), the macro-level determinants that affect

a host country's FDI flows include market size, the economic growth rate, GDP, infrastructure, natural resources, and the political situation (Woldemeskel, 2008).

2.4.1.1. CAPITAL MARKET THEORY

This theory is determined by interest rates. It explains and predicts the progression of capital and sometimes financial markets over time on the basis of one or other mathematical model (world, 2015). It posits that three factors motivate FDI, namely, an undervalued exchange rate, which reduces production costs in the host country; long-term investment in less developed countries often takes the form of FDI rather than the purchase of securities; and since investment in the host country securities is limited, FDI is favoured as it enables control of the host country's assets (Boddewyn, 1995).

2.4.1.2. DYNAMIC MACROECONOMIC FDI

This theory posits that FDI is a long-term function of MNCs. Investment timing depends on changes in the macroeconomic environment (Ene & Danut, 2013), including GDP, domestic investment, the real exchange rate, productivity and openness. In some instances foreign investors are threatened by the high rate of public debt, although this is not always the case (Morrissey & Udomkerdmongkol, 2012; Woldemeskel, 2008).

2.4.1.3. FDI THEORY BASED ON EXCHANGE RATES

This theory analyses the relationship between FDI and exchange rate changes and focuses on FDI as a tool for exchange rate risk reduction (Cushman, 1988). The exchange rate risk is the uncertainty of returns to an investor when acquiring an investment in a currency other than his/her own (Reilly & Brown). The exchange rate is a key factor in deciding on FDI (Dudáš, 2015; Woldemeskel, 2008).

2.4.1.4. FDI THEORY BASED ON ECONOMIC GEOGRAPHY

This theory shows why some countries and regions are more prosperous than others. Geographic proximity is among the factors that influence international production (Woldemeskel, 2008). The theory emphasises innovation as a determinant of FDI (Kumar, 2000). The explanation is based on differences among countries in terms of availability of natural resources, the nature of the labour force, local demand, and

infrastructure (Leamer & Storper, 2001). The structuring and development of geographical cities improve FDI inflow (Olds, 1997; Storper, 1996).

2.4.1.5. GRAVITY APPROACH TO FDI

This theory posits that the closer two countries are (geographically, economically, culturally, and in terms of political risk and infrastructure) the higher the FDI flows between them (Woldemeskel, 2008). This includes regional agreements that have the potential to offer specific advantages, by providing incentives for firms to undertake FDI (Nayak & Choudhury, 2014).

2.4.1.6. FDI THEORIES BASED ON INSTITUTIONAL ANALYSIS

This theory explores the importance of the institutional framework (government, markets, education and sociocultural factors) for FDI flows. It highlights political stability as a key factor in a healthy institutional framework (Dupasquier & Osakwe, 2006). The theory proposes that FDI is determined by institutional variables such as policies, and laws, and their implementation (Sachs & McArthur, 2005).

2.4.2. MICRO-LEVEL FOREIGN DIRECT INVESTMENT THEORIES

These theories seek to explain why MNCs prefer opening subsidiaries abroad rather than exporting or licensing their products, how they choose their investment locations and why they invest where they do (Woldemeskel, 2008). The prospect of earning higher profit could induce firms to invest abroad, primarily because of lower labour costs, although this is not the deciding factor (Sukhoruchenko).

2.4.2.1. EXISTENCE OF FIRM SPECIFIC ADVANTAGES

This theory states that firms invest abroad due to access to raw materials, economies of scale, intangible assets such as trade names, patents and superior management (Dunning, 2001) and reduced transaction costs when replacing transactions in the market with internal firm transactions (Hymer, 1976). These factors motivate MNCs to invest in their countries of choice (Nayak & Choudhury, 2014).

2.4.2.2. FDI AND OLIGOPOLISTIC MARKETS

This theory posits that firms follow the actions of the market leader. Other firms react by investing abroad and oligopolistic equilibrium is sustained (Knickerbocker, 1973).

The oligopolistic market is a two-tier oligopoly model and there are two types of foreign investors – those that produce intermediate products and those that manufacture final products (Dawid, Kopel, & Kort, 2010; P. Lin & Saggi, 2011). Foreign direct investment is a defensive move in an oligopolistic market; when one firm moves, others react with countermoves at both domestic and international levels (Schenk, 1996).

2.4.2.3. THEORY OF INTERNALISATION

The theory owes its origins to Mcnus and was further developed by Buckley and Casson, (1976) and Hennart (1982) (Kojima, 1989). It was formulated in response to market imperfections that cause firms to make use of their monopolistic advantage. The theory suggest that firms can overcome market imperfections through market-internalisation (Kojima, 1989). According to (SIPKO, DUDÁŠ, & CSABAY, 2014), this was a popular theory during its time. Internalisation involves vertical integration that brings new operations and activities under the governance of the firm (by internalising across national boundaries, a firm becomes multinational).

2.4.2.4. ECLECTIC FDI THEORY - JOGN DUNNING

This theory was developed by Dunning (Dunning, 2001)2001). He (1977; 1979) combined the imperfect market-based, oligopolistic and internalisation theories and added a third layer, the location theory, to explain why a firm establishes a foreign subsidiary (Nayak & Choudhury, 2014). The location theory deals with the question of who produces what goods or services in which locations and why. It integrates macro and microeconomics theory and firm behaviour (industrial economics). The theory is also known as the OLI paradigm. Dunning is of the view that firms would engage in FDI if three conditions were fulfilled. The theory is underpinned by three elements: resource-seeking FDI, market seeking FDI and strategic asset/ capabilities seeking FDI. The eclectic paradigm of OLI shows that parameters are different from company to company and reflect the economic, political and social conditions of the host country (Dunning, 1994).

(Dudáš, 2015; Woldemeskel, 2008) state that FDI in developing countries is shifting from market seeking and resource FDI to more efficiency seeking FDI; this is due to socio-economic pressure on prices. Thus, MNCs are expected to relocate some of their production facilities to low cost developing countries. Despite these

developments, FDI in developing countries is still directed at accessing natural resources and national or regional markets (Dunning, 1994).

Dunning concludes that the greater the Ownership (O) and (I) Internalisation advantages possessed by firms and the more the Local (L) advantages of creating, acquiring and exploiting these advantages from a location outside its home country, the more FDI will be undertaken. Where firms possess substantial O and I advantages but the L advantages favour the home country, domestic investment will be preferred to FDI and foreign markets will be supplied by exports (Dudáš, 2014).

Dunning empirically tested his theory in 1980 and was satisfied by the results. However, (Kojima, 1985, 1989) argued that the exploratory variables in the theory are almost zero and added that the eclectic theory does not make sufficient allowance for differences in firms' strategic response to any configuration of OLI variables. In turn, Dunning (2001) acknowledged some of the theory's weaknesses, and stated that the difference between his OLI approach and that of Kojima is primarily a difference in emphasis and perspective rather than reasoning (Dudáš, 2015; SIPKO et al., 2014).

2.4.3. APPLICATION OF FOREIGN DIRECT INVESTMENT THEORIES TO THE EC

These theories state that firms invest abroad due to certain advantages such as access to raw materials, economies of scale, intangible assets such as trade names and patents, and superior management at the micro-level (Dunning, 2001).

The debate on whether FDI is advantageous or disadvantageous will be examined later in this study (section 2.6.3.4). However, the low level of investment in the EC means that it is imperative to attract FDI. The EC is not immune to the challenges and weaknesses confronting SA as a whole. The exchange rate, interest rates, policy uncertainty, political situation, and protecting FDI are prerogatives of the national government. The EC is seriously lacking in the identified determinants of investment, especially in relation to productivity, the labour force and labour legislation, the cost of doing business and openness, natural resources, above average infrastructure, local demand and market size, location, political stability, regional integration and FDI, good governance, and well regarded educational institutions.

2.4.4. FOREIGN DIRECT INVESTMENT SUMMARY

The key determinants of FDI include interest rates, GDP, the exchange rate, productivity, the labour force and labour laws, the cost of doing business and openness, natural resources, infrastructure, local demand and market size, location, political instability, regional integration, good governance, educational institutions and cultural dynamics (Sukhoruchenko, 2007) . Theories on FDI strongly suggest that government policies on the domestic economy also play a pivotal role in attracting investment from international firms (Sachs & McArthur, 2005).

The theories explain the key determinants of FDI at micro- and macro-level. Micro-level theories identify the determinants of FDI as raw materials, economies of scale, intangible assets such as trade names and patents, imitating firms that take the lead in the market and market imperfections. The application of these theories to the EC was also briefly examined.

2.5. PUBLIC INVESTMENT THEORIES

This section defines public investment, and examines the theories underpinning it, how it is achieved, its determinants and its role in investment and economic growth. Government investment/public sector investment refers to the funds government invests in new infrastructure projects, hospitals, education, army bases, roads, railways, harbours, housing, police stations, access to basic water, and access to sanitation services, to mention but a few (Zheng & Kahn, 2013).

The speed of adjustment to desired levels of capital stock is determined by stages of the business cycle, the availability of financing, and the level of public sector investment (Blejer & Khan, 1984). Public investment in infrastructure complements private activity by reducing firms' costs and thus inducing higher levels of private investment (Shafik, 1992).

Credibility and a good reputation in macro-economic policy are the key in attracting foreign investment, and encouraging long-term domestic investment (Woldemeskel, 2008). Macro-economic stability, fiscal discipline and a stable, transparent fiscal framework are pivotal (Aron & Muellbauer, 2009).

2.5.1. PUBLIC INVESTMENT RESOURCE ALLOCATION AND EVALUATION

While public investment is difficult to measure, this sub-section examines policy making and reflects on two models used to evaluate public investment (at the micro- and macro-level) (Misch, 2008).

2.5.1.1. APPROACHES AT A MICROECONOMIC LEVEL

This method combines approaches used to evaluate the cost and benefits of public investment projects. It aims to increase the efficiency of public resource allocation. The method is known as *ex ante*; returns on public investment projects can be estimated or inferred from existing *ex-post* estimates of different projects (Barbiero & Darvas, 2014).

- Cost benefit analysis associated with a public investment project is quantified which allows the calculation of the net present value. The major difficulty is estimating the full range of public investment, which is almost impossible. Many

productive benefits, like the impact of transport infrastructure on private investment, are excluded.

- Cost-effectiveness analysis, which is used in the health sector in particular, relates public expenditure on a specific project or intervention to the achievement of a particular outcome or output level. Again, this analysis has flaws, as it assumes that the public investment with the least costs is the most desirable outcome.
- Qualitative analysis is an alternative to quantitative measurement of the returns on public investment when quantification of benefits is too demanding. It lists and describes the possible benefits of a public investment initiative.
- Ex-post evaluation/impact evaluation generally assesses the economic outcomes that can be attributed to a particular public investment. Micro evaluation methods are used with econometric techniques.

2.5.1.2. APPROACHES TO THE MACRO LEVEL

The first stage in this approach is elimination of wasteful public investment: this can be achieved by improving the overall effectiveness of public spending. It requires the identification of ineffective public expenditure programmes. This approach is not easily applied to public investment because some recurring public investment projects or programmes cannot be stopped or reformulated; by its very nature, public investment creates lasting capital stock, and interrupting on-going projects may not produce desirable results. It is also difficult to identify the least effective public investment project in countries where effectiveness is very low, especially when specific criteria are missing. In some countries there is no guidance for what 'the saved' or returned or unspent budget allocation should be used for (Misch, 2008).

2.5.1.3. SETTING MACROECONOMICS PRIORITIES

Setting overarching macroeconomic priorities for public spending can increase the effectiveness of public spending in general and guide public investment decisions. However, some countries set priorities, but fail to implement them while others do not even identify priorities.

The South African government has adopted the NDP (Vision 2030) as a guiding framework for a prosperous future, with different milestones (N. P. Commission, 2013).

Public investment must be linked to a development strategy, be it national, provincial or local and the purpose must be to reduce poverty, promote job creation, contribute to economic growth, and benefit society (OECD, 2014). Beyond enhancing economic growth and stabilisation, the role of public investment in satisfying massive infrastructure needs in many developing and emerging economies has been widely acknowledged (Grigoli & Mills, 2014).

In principle, the returns on public investment are therefore a crucial parameter for debt sustainability analysis. However, given that these returns are unknown, there is a risk that additional borrowing may worsen debt sustainability, especially if they turn out to be smaller than the cost of servicing debt. Public investment is used to accumulate capital stock and public consumption (Mallick, 2013). Its impact depends to a large extent on how governments manage it, and they need to do much better in terms of budget austerities (OECD, 2014).

2.5.1.4. APPLICATION OF PUBLIC INVESTMENT THEORIES TO THE EASTERN CAPE PROVINCE

National and provincial government budget reviews and budget speeches indicate that the government investment allocation has been hovering at around 6%-7% of the EC budget inclusive of additional infrastructure grants to municipalities (Provincial Treasury, 2014). The reality is that all government departments and municipalities have battled to utilise the budget allocation and that infrastructure has not been built. Furthermore, where it has been provided, it is often of poor quality.

Government evaluation and monitoring of public investment is poor; hence, the province is regarded as poor and corrupt. Intelligent public sector investment is lacking. The government's intention to increase investment from 7% to 10% by the year 2030 triggers the question of whether this increase will be spent efficiently or go to waste in the province (Bongani, 2017; Treasury, 2016).

2.5.1.5. PUBLIC INVESTMENT THEORIES SUMMARY

Public investment is difficult to measure due to a number of reasons: the investment is made based on predetermined outcomes; it is outcome-based rather than profit-based and it aims to supporting constitutional and government mandates. These range from poverty reduction, to service delivery, and social and capital infrastructure.

This section examined public investment theories, and micro and macro approaches, as well as evaluation tools. It also detailed effective ways to set macroeconomic priorities.

2.6. EMPIRICAL LITERATURE

This section focuses on three dimensions of the empirical literature on investment (private investment, FDI and public investment) by examining trends in developed and developing countries, and SA, with a focus on the EC Province.

2.6.1. STUDIES ON DEVELOPED COUNTRIES

This section examines investment trends, the economic environment, financial constraints, and the policy efforts of the major advanced economies known as the G7 or developed countries. The G7 is composed of Canada, France, Germany, Italy, Japan, the United Kingdom and the United States. While these countries formerly dominated the world economy, the emergence of China, India, Brazil, Mexico and other growing economies, has reduced their economic significance. The G7 countries are also burdened by high debt levels, low growth rates and ageing populations (Economywatch, 2016). Investment (% of GDP) in the G7 countries averaged 19.74% for 2014, 1.88% short of the world average of 21.62%. This figure was a slight improvement on that of 19.34% in 2013 (Economywatch, 2016). The G7 investment rate grew to 20.12% in 2015 (Economywatch, 2016).

The 2015 G7 summit held in Germany under the theme of “Think Ahead. Act together” focused on a number of issues facing the advanced economies and made commitments to address them to ensure a better life for all. These include climate protection, health promotion, equal participation of all members of society and a sustainable growth path (G7, 2015).

In 2016, the G7 set the following priorities (Economywatch, 2016):

- The global economy with the following key areas; investment in quality infrastructure, developing women in science, technology, engineering and mathematics as a basis for women empowerment, transparent tax policies, and anti-corruption.
- Trade, politics and diplomacy
- Climate change

For SA to advance its investment rate, it needs to work closely with the G7 countries in major areas such infrastructure, agriculture, technology and the knowledge sector.

2.6.1.1. PRIVATE INVESTMENT PERFORMANCE

According to UNCTAD (2014b), total private investment declined sharply post the world financial crises. The advanced economies are feeling the pinch, with average margins of around 25% compared to pre-crisis forecasts. Private investment performance has been broad-based, encompassing both residential (housing) and commercial (business) investment. Private investment in developed countries shows a positive increase and the investment gap is now evident in developing countries (UNCTAD, 2015).

According to the 2015 G7 declaration, technological advancement, education and support for innovation, protection of intellectual property rights, and support for private investment and a business friendly environment focused on small and medium-sized enterprises, ensure an appropriate level of public investment that promotes quality infrastructure investment through structural reforms. Partnerships with the private sector will also enhance productivity (Economywatch, 2016; UNCTDA, 2016).

2.6.1.2. WEAK ECONOMIC ENVIRONMENT

Poor levels of business investment are attributed to the weak economic environment, which can be traced to the global economic crisis. Firms have cut back on capital investment. The weak business environment has led to reduced customer demand that, in turn, results in production cutbacks (UNCTAD, 2014b). The global economy is growing at a slower rate, with even the most developed countries showing signs of contraction. However, positive growth is expected from 2017 (Fund, 2016). In these difficult economic times, investment in infrastructure is imperative and will be forthcoming in settings with low real interest rates (UNCTDA, 2016).

The 2015 G7 summit identified prolonged periods of high inflation, low levels of investment and demand, high levels of public and private debt, sustained internal and external imbalances and geopolitical tensions as well as financial market volatility as major issues confronting the global community (G7, 2015).

2.6.1.3. FINANCIAL CONSTRAINTS AND POLICY UNCERTAINTY

(UNCTAD, 2014b) adds that financial constraints and policy uncertainty have also caused sluggish business investment in some economies, for example, in southern

Europe. Uncertainty, irreversibility, and the lumpy nature of investment projects have played a role in discouraging business investment.

2.6.1.4. POLICY EFFORTS TO EXPAND OUTPUT

(UNCTAD, 2014b) contends that fiscal and monetary policy can play a significant role in encouraging firms to invest, although such policies are unlikely to return investment to pre-crisis trends. It adds that additional public infrastructure investment may also be warranted especially in economies with poor infrastructure, efficient public investment and economic slack to spur short run demand, raise supply in the medium term, and “crowd in” private investment. The International Monetary Fund (IMF) also suggests strengthening structural reforms relating to the labour force as this has the potential to increase the output outlook and in turn encourage private investment. It add that policies can play a role in relieving crisis-related financial constraints, such as tackling debt overhang and cleaning up bank balance sheets.

The G7 2015 summit noted that some major economies are operating below their full potential and more effort is required to achieve strong, sustainable and balanced growth. Furthermore, flexible fiscal strategies and monetary policies that are cognisant of near-term economic conditions to support growth and job creation, while placing debt as a share of GDP on a sustainable path (G7, 2015) are needed. The G7 2016 conference in Japan adopted strong resolutions on stability and prosperity in Asia, and also placed more emphasis on quality infrastructure investment that would strengthen regional connectivity, while Japan took a further step and announced an “expanded partnership for Quality Infrastructure” (Mofa, 2016).

2.6.1.5. FOREIGN DIRECT INVESTMENT

Foreign direct investment is regarded an essential catalyst for economic development (Aregbeshola, 2014). It is likely to support growth through job creation, capital accumulation and productivity spill overs (ECB, 2015). According to (UNCTAD, 2014b), FDI in developed economies started recovering after the sharp fall in 2012, but remained at a historical low of total global FDI flows (39%), lower than the 57% achieved during its peak in 2007. Developing countries maintained their lead over developed countries by a margin of more than \$200 billion. Governments use incentives to attract FDI, despite constant criticism that they are economically

insufficient and lead to misallocation of public funds. The main objectives of investment incentives are job creation, technology transfer and export promotion, while the most important target is IT and business services, followed by agriculture and tourism (UNCTAD, 2014b). According to the (ECB, 2015), key FDI attraction points are not restricted to economic factors, but include structural ones such as infrastructure, human capital development, employment protection legislation (EPL), and tax on profits as a percentage of GDP.

2.6.1.6. PUBLIC INVESTMENT

(IMF, 2014) states that public investment raises output in both the short and long run, especially during times of economic slack and when investment efficiency is high. It adds that, for countries with infrastructure needs, now is the right time for an infrastructure push, since borrowing costs are low and demand is weak in advanced economies and there are bottlenecks in many emerging markets and developing economies (IMF, 2014). (Tanzi & Davoodi, 1998) state that it is good policy to borrow to finance the building of new roads but not to finance repair of existing ones. Similarly, it makes sense to borrow in order to build a new hospital, but not to hire doctors or nurses or buy medicines. Economists term this the “golden rule”. A country’s roads and water systems are the foundations on which economic activity takes place and most economists agree that public infrastructure is important for a country’s growth (Rioja, 2003).

Post the global financial crisis, recovery remains sluggish, even in advanced economies. In emerging markets, sharply rebound growth rates have not been able to reach pre-crisis rates that are lower than the decade before the crisis (IMF, 2014). It has been suggested that, in advanced economies, infrastructure investment could provide a much-needed fillip to increase demand, and that it is one of the few remaining policy levers available to support growth, given an accommodative monetary policy. In developing economies, it could help to address existing infrastructure bottlenecks. In all economies, it would enhance medium-term output, as higher infrastructure capital stock expands productivity (IMF, 2014).

2.6.2. STUDIES ON DEVELOPING AND EMERGING COUNTRIES

Emerging countries have high levels of economic development, usually accompanied by rapid industrialization, and unprecedented growth in the energy, information technology and telecommunications sectors (Reynolds, 2015). They differ from developing countries in that they no longer rely primarily on agriculture, have made impressive gains in infrastructure and industrial growth, and are experiencing increasing incomes and rapid economic growth (Reynolds, 2015). This sub-section focuses on four countries' achievements with regard to public and private investment and FDI.

2.6.2.1. PUBLIC INVESTMENT

According to (PropertyNews, 2014), in order for the private sector to invest more, the public sector must start delivering on its own investment programmes. Its efficacy in delivering infrastructure will enable the private sector to expand capacity, employ more people and produce more goods and services, thereby growing the taxpayer base, which will help to reduce the fiscal deficit and allow more room to deliver on key social services (PropertyNews, 2014).

In emerging countries like Brazil, India, Russia and South Africa, infrastructure bottlenecks are not just a medium-term worry but have been flagged as a constraint on near-term growth (IMF, 2014). In transitional or developing countries, infrastructure deficiencies remain glaring and are often cited as an impediment to long-term development.

2.6.2.2. FOREIGN DIRECT INVESTMENT

According to (UN, 2005), on their own, new policies or government reform are not sufficient to break the poverty trap in developing countries. Low levels of domestic savings are not offset by high inflows of private foreign capital, such as FDI, as Africa's poor infrastructure and weak human capital discourage private capital inflows. According to (Popa & Carp, 2013), despite some domestic obstacles, the BRICS economies are the world's largest economic group based on increasing attraction of FDI and their rapid development. Over the past decade, the BRICS countries have become a symbol of the change of power in the global economy and they are important representatives of the developing world, and a good example of cooperative relations

at bilateral, regional and multilateral level. They also demonstrate that success hinges more heavily on the institutional quality of an economy (Popa & Carp, 2013). The BRICS countries have managed institutional dynamics thus far, despite the fact that China is the largest global lender and currently holds more power. According to (UNCTAD, 2014a), FDI flows to developed countries increased by 9% in 2014, reaching \$566 billion, mainly through increased retained earnings in foreign affiliates in the EU, resulting in an increase in EU FDI. Furthermore, FDI flows to developing economies reached a new height of \$778 billion, accounting for 54% of global inflows. Inflows to transitional economies rose to \$108 billion, an increase of 28% from the previous year and accounted for 7% of global FDI inflows (UNCTAD, 2014a).

2.6.2.3. PRIVATE INVESTMENT

Private investment in emerging markets and developing economies has slowed in recent years, following a boom in the early-to-mid 2000s, but more gradually than in advanced economies (UNCTAD, 2014b). The BRICS countries encourage private investment and companies in these countries invest across the world. Although China is the largest trade, investment and development finance partner, private investment can play a pivotal role in infrastructure development, health, education and climate change mitigation activities (UNCTAD, 2015). In a bid to attract more private investment and FDI, countries like China, Rwanda, and Egypt, to mention but a few have revised their investment policies and adopted a more friendly framework (UNCTDA, 2016).

2.6.3. STUDIES ON SOUTH AFRICA

After the 2009 economic recession, SA experienced much slower economic growth, FDI, and public and private investment. This section discusses South African investment trends, savings as a pillar of funding public investment, private sector investment and FDI.

2.6.3.1. SOUTH AFRICAN INVESTMENT TRENDS

South Africa will not prosper until it roots out the corruption, self-enrichment, nepotism, political careerism and impunity that mark both its administration and the party that it

represents (Bloomberg, 2016). The African National Congress' (ANC) poor performance in municipal elections led to calls for the president to resign. It is believed that this will place the country on a positive economic trajectory (SACC, 2016). South Africa's economic growth for 2016 is predicted to decline to 0.9% from the 2015 rate of 1.3% and rebound to 1.7% and 2.4% in 2017 and 2018, respectively (Treasury, 2016).

Figure 2-1 below shows the composition of SA's GFCF and which province contributed the most from 1995 to 2015.

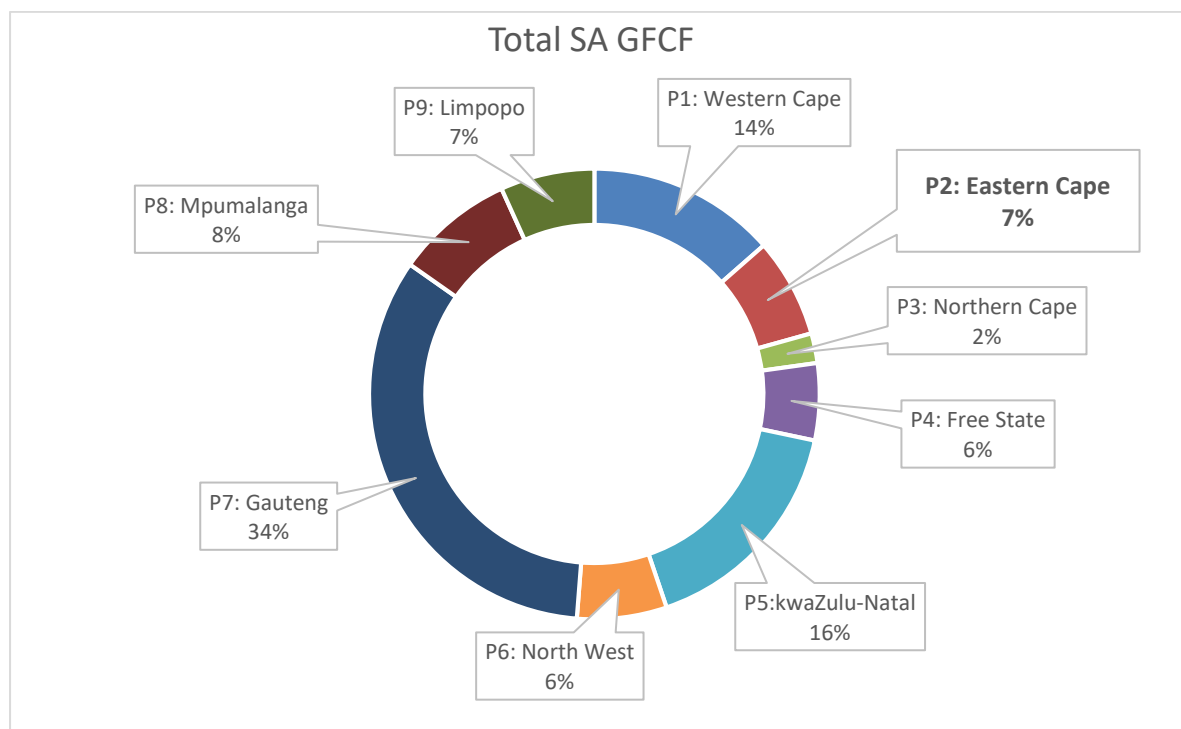


Figure 2-1: SA's Provincial contribution to the GFCF(1995-2015)

Source: constructed from Quantec data

SA's investment (% of GDP) trends from 1994 (15.4%) to 2015 (19.5%) reflect a slow, steady increase. According to (Economywatch, 2015), the country ranks 116th in the world investment rankings (% to GDP). The global average investment value is 21.62% and SA is 2.26% short of the average. It is projected that the highest rate reached for 2014 to 2019 will be 19%. Growth from 1994 to 2015 can be summed up as 4%, with the best performance in 2006 (19.7%), 2007 (21.21%) and 2008 (23.15%) (Economywatch, 2015, 2016). Furthermore, GFCF has not grown above the 2008 rate; indeed, the country is battling to grow its economy.

Two factors impacted on SA's investment rate; the rate dropped during the world financial crisis and that period marked the new administration of President Zuma. The new administration added two new policy layers: the New Growth Path (NGP) and the NDP. The NGP was launched on 23 November 2010 and was subject to sharp criticism from certain sectors of society particularly the National Union of Metalworkers of South Africa (NUMSA). The NGP is not specific on investment targets. The NDP, which was launched on 12 August 2012, recognises the challenge of low investment and proposes solid strategies to increase the investment level to 30% by 2030 in line with other developed economies. The NDP has also been criticised by NUMSA, while opposition parties and the business sector have applauded it. While it sets ambitious targets for economic growth, current investment rates and economic realities could stymie such ambitions. Improved collaboration between the public and private sectors will be required if SA is to achieve the 30% investment target by 2030. This target was set assuming 5% per annum economic growth, which has never been achieved by the current administration. Should this growth rate be achieved, it is envisaged that the unemployment rate will drop to 6% (Municipality, 2012).

2.6.3.2. SAVINGS AS A PILLAR TO FUND INVESTMENT

There is a positive correlation between savings and investment; increased domestic savings improve the availability of funds for investment, while reducing domestic borrowing costs and increasing economic growth in a market conducive environment (Faulkner, Loewald, & Makrelov, 2013). South Africa is not doing well when it comes to savings; since the dawn of democracy, the savings rate has never been above 19% to GDP. The nation's capacity to save through its citizens, companies and the public sector is positively related to its ability to achieve higher, sustained and inclusive economic and social development (Saville, 2015). However, household indebtedness has increased to 78% to gross income and household debt to GDP is 37% (Economics, 2016). Over the past decade SA liberalized its financial services and banks and building societies increased credit to households for housing finance and consumer goods (Harjes & Ricci, 2005b).

An unmovable economic reality is that investment spending can be funded only by savings (Saville, 2015).

South Africa's investment (% to GDP) for 2013 was 13.54%, which is 4.44% less than the world average; in terms of world rankings, the country stands at number 109 (Economywatch, 2015) (Economywatch, 2016). The 2013 rate (13.54%) is lower than 2010 (18.01%) and 2011 (16.99%) which were the highest in SA since democracy. The 2019 forecast is 19%. The 2013 rate is very low compared to other emerging markets (Harjes & Ricci, 2005a). The NDP Vision 2030 acknowledges the low savings rate in SA and plans to increase savings (% to GDP) from 16% to 25% by 2030.

Higher savings impact more on employment, while other policies reduce skills constraint and may also increase industrial incentives that favour capital intensive industries (Faulkner et al., 2013). For SA to be able to fund the proposed investment trajectory, it will at least need to double the current rate of savings from now to 2030. To date, the government has not succeeded in improving the savings rate.

2.6.3.3. PUBLIC INVESTMENT

The first strategy required at the macro level is elimination of wasteful public investment; this can be achieved by improving the overall effectiveness of public spending. Particularly ineffective or wasteful public expenditure programmes need to be identified (Misch, 2008). The South African government is well known for wasteful and fruitless expenditure. In 2014-2015, the Auditor-General reported irregular expenditure of R25.7 billion across the country's national and provincial departments and SOEs (Makwetu, 2016). The South African government lacks public governance controls and is hence regarded as very corrupt, a label that is also associated with President Jacob Zuma. Corruption involves misallocation and misappropriation of public funds, with expenditure often inflated as a result (Haque & Kneller, 2015). The South African government is currently in discussion with its top 100 suppliers to reduce prices in the hopes of achieving significant cost savings over the medium term (Treasury, 2016).

Stronger public sector capital investment, additional electricity-generation capacity, relatively stable inflation, low interest rates and robust economic activity are the ingredients required to improve SA's economic growth (Treasury, 2013). The government's role is to provide public goods and services which function as inputs to private production (Haque & Kneller, 2015). The key emphasise of the NDP is an increase in investment that will grow the economy faster and more inclusively. The

NDP forecasts that investment as a percentage of GDP will rise to 30%, and public sector GFCF to 10% from the current 6-7% by 2030 (N. P. Commission, 2013). Public investment in SA is moving at a very slow pace despite the enormous budget of R844.5 billion for the 2012/13-2014/2015 medium-term expenditure framework. This investment is funded by debt. Budgeted infrastructure investment spending for 2016/17-2019/2020 stands at R947.2 billion, also funded by debt. This will be channelled to water and sanitation, transport and logistics (Gordhan, 2017).

Delays in the construction of electricity power stations caused an economic slump in SA as it exacerbated load shedding. Furthermore, such delays caused the costs of construction to almost double from R69 billion when the project commenced in 2007 to an estimated cost of R154 billion in 2015. Borrowing and debt securities costs escalated from R182.5 billion in 2012 to R265 billion in 2014 (Lowman, 2016).

A higher rate of investment is possible in SA given strategic and intelligent public investment that can crowd in private investment. This is heavily dependent on strong and meaningful partnerships with the private sector, policy certainty, and strong political leadership in all spheres of government coupled with long-term growth confidence (October, 2015). The (IMF, 2014) states that the best time to borrow money to invest is now because of low global interest rates, but this is not entirely the case in SA as the country has been downgraded by credit rating agency Standard & Poor's; this increases the cost of borrowing. Although public infrastructure investment is increasing in emerging and developing economies and declining in advanced economies, the infrastructure of emerging economies is still a fraction of that of advanced economies (IMF, 2014). Developing countries like SA have a lot of catching up to do and public sector investment needs to at least double if the country is to achieve improved economic growth and investment (Government, 2012).

Countries with lower levels of corruption enjoy an efficient return on public investment. Corruption increases public investment but reduces its effect on economic growth (Haque & Kneller, 2015). A classic example of this phenomenon in the EC Province is Mngquma Local Municipality that paid R5.3 million in 2015 for a testing station that was never constructed. In terms of the budget allocation and payment, this payment was recorded as investment without actual construction. This poses a serious question regarding the EC's exact investment budget or rate (Bongani, 2017). In the same

municipality, R150 million was paid to construction companies to resurface township roads in the past three financial years, but there is nothing to show for this and this infrastructure remains in a poor state (Bongani, 2017). The fact that, in some instances, government has paid for services and construction without delivery illustrates the lack of rigorous appraisal of projects (Allix, 2015). The high construction costs of public infrastructure, poor management of infrastructure planning, poor and often corrupt tender systems and skills constraints are some of the challenges faced by government in rolling out infrastructure (Ajam, 2014).

The South African government reiterates that it is still trying to address decades of serious underinvestment in economic and social infrastructure under apartheid. It claims that it has made impressive progress in addressing constraints although this is hampered by the global economic environment coupled with overreliance on commodity exports, a shallow skills base and low domestic savings and investment (Ramaphosa, 2015a). While a number of emerging markets and low-income economies have a pressing need for additional infrastructure to support economic growth and development, public investment may only lead to limited gains if there is no improvement in the efficacy of the investment process (IMF, 2014).

2.6.3.4. SOUTH AFRICAN FOREIGN DIRECT INVESTMENT

Foreign direct investment is a pivotal element of globalization and the world economy, and is a driver of employment, technological progress, productivity improvements and a key factor in economic growth. It supplements domestic savings, promotes integration in the global economy and enables transfer of skills (Anyanwu, 2012; School, 2013). Africa has never been a major recipient of FDI inflows, and lags behind other regions of the world (Anyanwu, 2012; Seyoum, Wu, & Lin, 2015). The continent's failure to attract FDI inflows is highlighted by its declining share in global FDI flows. Conflict and unstable governments have contributed to this situation (Seyoum et al., 2015).

While there is a rich literature on FDI flows to developing countries, few studies have been conducted on the African continent and there is a paucity of in-depth analyses of the determinants and dynamics of FDI flows, apart from the annual overviews in UNCTAD's World Investment Reports (Loots & Kabundi, 2012).

According to (Arvanitis, 2005), SA's open investment climate and FDI have played a crucial role in the development of its economy. However, the country has been experiencing a decline in FDI; from 2011-2012 it recorded a 24% decline (from R60.6 billion to R46.46 billion) and it was Africa's third largest recipient of FDI inflows in 2012. In 2011, SA's total GDFI was R349 billion, of which 15% was contributed by general government, 23% by public corporations and 62% by private business enterprises (Moneyweb, 2013). According to (UNCTAD, 2014b), the overall increase in FDI in Africa was driven by the Eastern and Southern African sub-regions, as other regions witnessed falling investment. In Southern Africa inflows almost doubled to \$13 billion, mainly due to record-high flows to SA and Mozambique. In both countries, infrastructure was the main attraction; investment in Mozambique's gas sector played a vital role (UNCTAD, 2014b).

Comparisons of domestic/private investment and FDI have established that private investment has positive spill over effects but FDI's net impact is somewhat contentious. Foreign direct investment's impact on tax revenue generation, job creation and skills; and technology transfers continues to be a matter for debate as the evidence suggests that such inflows may lead to other economic imbalances (Jahed, 2014). For the purposes of this study, the focus is on traditional forms of FDI rather than portfolio investment, although the latter is regarded as a first step in attracting investment inflows to a region (School, 2013).

Foreign direct investment traditionally centres on three main forms of investment, Green fields, cross border mergers and acquisitions, and brown investments.

- In Green fields investment, the mother company creates a new asset or facility in the form of a completely owned subsidiary or a controlling equity stake in a joint venture.
- In cross border mergers and acquisitions, a foreign firm acquires or merges with a local firm in a target economy. The assets of two firms from different countries are combined to form a new entity (Loots & Kabundi, 2012).
- Brownfields investments are a hybrid form of investment whereby the foreign investor acquires a leading stake in a local firm, but almost completely replaces the entire manufacturing plant, including a large investment in capital equipment (Loots, 2000).

Advantages associated with FDI

- Transfer of technology: while technological transfer benefits may go both ways, the host country may learn from the foreign country and there is no particular format (School, 2013).
- Transfer of management skills and improved production techniques: FDI offers opportunities for skills transfer and improvement of the host nation's managerial and labour productivity especially in situations where there is competition in the local market (Loots, 2000).
- Improved human capital through skills transfer: FDI may lead to improved human capital skills through training programmes offered by investing companies; this may have spill-over effects on local companies (Loots, 2000).
- Access to new markets: FDI may present new opportunities to access new markets for both the local economy and the investing entity which may lead to further expansion of such markets into neighbouring countries (Loots & Kabundi, 2012).
- Job creation: FDI offers many opportunities for job creation, improved export performance and widening the tax base, although this is heavily dependent on the types of investment (Loots & Kabundi, 2012).
- Reduced regional restrictions: FDI may stimulate trade and reduce existing regional restrictions (Loots, 2000).
- Stimulation of market forces: FDI may also stimulate market forces through increased economies of scale, both internal and external and this may enhance competition in the domestic market (Loots, 2000) (le Clus-Rossouw, Viviers, & Loots, 2015).

Disadvantages of FDI

- Foreign subsidiaries' earnings may increase over time, causing possible deficits in the nation's current account (le Clus-Rossouw et al., 2015).
- FDI may require high subsidies from the host nation for viability, reducing funding for social welfare and economic production (incentives) (Loots, 2000).

- In some instances FDI may not be done with good intentions; it may lead to harmful exploitation of child labour, dumping and undermining of local resources (Loots & Kabundi, 2012).

Although some scholars have observed that FDI's overall benefits are unclear, traditionally, it is more stable and long-lasting than portfolio investment (Loots, 2000; Loots & Kabundi, 2012).

Foreign direct investment is thus one of the many tools that make it possible for an economy to expand beyond its borders, engage in international trade, enhance its competitiveness, and achieve growth and sustainable development (Loots, 2000). It increases the level of investment and economic growth. South Africa needs to achieve 30% investment by 2030; it also needs to increase the rate of FDI. In its quest to do so, the government adopted the Promotion of Investment Act, which seeks to strike a balance between protecting investors and their investments and ensuring that they fulfil their obligations ("Protection of Investment Act , 2015," 2015). By managing FDI carefully, SA may be able to increase the likelihood of positive spill over effects (Jahed, 2014).

2.6.3.5. PRIVATE SECTOR INVESTMENT

The NDP's concerns with regard to low investment sentiments in SA are due to the fact that investment is regarded as the most reliable predictor of future economic growth (October, 2015; (N. P. Commission, 2013). One of the challenges confronting SA on the economic front, is that private sector investment is not growing fast enough to grow the country's economy by 5% (October, 2015). The relations and level of trust between the state and the private sector are at a low point. Business needs to come forward with ideas to assist the ailing economy by investing in the country, as government is the biggest investor, and investment is directed towards infrastructure (Ramaphosa, 2015b). What is not clear is how SA reached such a low level of trust between the state and private sector. The government has been trying very hard to persuade the private sector to come on board to work together to support the economy and save jobs in the mining and steel sectors and attract investment through Special

Economic Zones (SEZs) with increasingly generous incentives. It remains to be seen if this strategy will work (Jahed, 2014).

Subdued private sector employment and stagnation in public sector employment puts pressure on the tax base and is a sign of an economy under strain (Fiestas, 2011). This has contributed to SA rating downgrade. The government needs to find ways to boost consumer and business confidence in order to inspire private sector job creation, including the development of small and medium size businesses. Currently, the South African private sector accounts for 80% of production and employment (Jahed, 2014). However, it has been reluctant to invest retained earnings in productive capacity. Increased private sector investment is critical for higher levels of growth. The NDP sets a target of 30% investment by 2030; this is split into 20% private sector investment and 10% public sector investment. The private sector accounted for 60% of Gross Domestic Fixed Investment in 2014. Investors, be they domestic and foreign, are primarily driven by returns on investment. The incentive to invest is a strong expectation of economic growth in a particular country (October, 2015). The private sector could play a key role in reducing the unemployment rate to 6% by 2030. It is thus critical that government finds a better way to improve business and consumer confidence, and promote private sector job creation, including the development of small and medium size businesses. The divergence between private sector and public sector employment cannot continue forever, because it places heavy strain on the South African tax base. Boosting private sector confidence and investment will put SA on a different footing especially since government intends to trim its wage bill; this has contributed to SA's credit downgrade (Lings, 2014). In order to persuade the private sector to invest more, the government needs to focus on alleviating infrastructure bottlenecks and improving the business environment and the strained relations between these sectors. Invest SA initiatives like public-private partnerships aim to boost domestic and foreign investment. They include one stop-shops at the national and provincial level to assist investors with procedures for start-ups and business operations and deal with regulatory bottlenecks (Treasury, 2016).

The power crisis in SA reduced economic growth and investment, and is a huge cost to the economy; the estimated cost of stage 10 load shedding with hours of blackouts per day for 20 days in a month was about R20 billion. Using the same time parameters,

stage 2 and stage 3 cost R40 billion and R80 billion, respectively. The estimated loading shedding cost from 2008 to 2014 was R300 billion; this contributed to the depreciation of the rand and stalled economic growth (Writer, 2015).

2.6.4. THE EASTERN CAPE PROVINCE

This section focuses on the EC's socio-economic outlook, investment trends, national development priorities (the NDP, PDP, and PGDP), the interconnection between national investment promotion and provincial strategies/ policies, the role of agencies and SOEs, provincial income, political leadership, and skills depths, migration to other provinces, and metros and district municipalities.

2.6.4.1. EASTERN CAPE SOCIO-ECONOMIC OUTLOOK

The EC has been a marginalized region in the South African economy since the discovery of diamonds and gold in the 19th century. With the emergence of the mining core of the economy in the 20th century, the province's primary function was to supply unskilled labour through the migrant labour system. This arose because of the lack of mineral resources in the province and the establishment of Bantustans, which mainly functioned as suppliers of labour to other areas or provinces (Mike, 2013).

The former so-called "homelands" were set up effectively as a source of cheap labour, as such, they were designated mainly in areas without substantial natural resources and starved of public investment and social services (Makgetla, 2016) .

To this day, provinces where a large number of citizens reside in former homelands typically have lower household income and worse infrastructure. As a result, the EC is struggling with infrastructure backlogs inherited from apartheid. The provincial economy is characterised by a relatively high share of manufacturing, but lags behind the national economy in terms of productivity. This can be attributed to a large extent to the existence of a manufacturing sector centred on the auto industry in the two metros (Buffalo City and Nelson Mandela Bay) and the incorporation of two apartheid Bantustans which were historically deprived of resources, infrastructure and public services (Makgetla, 2016).

It is thus no surprise that the province has seen relatively slow growth in employment and low pay, especially in the past four years. Post-1994 the EC has continued to experience high outward migration (E. C. P. Commission, 2013; Makgetla, 2016). One of the key elements in stimulating economic growth is investment in infrastructure development, which will contribute significantly to the stimulation of the construction industry (Masualle, 2014). The EC economy is forecast to lag behind the national average, calling for an integrated sectoral approach to ensure economic growth (Somyo, 2016). The provincial investment budget allocation hovered between 5% and 7% from 1994 to 2015; in 2015/2016 the EC spent less on infrastructure than other provinces, with only R3.5 billion or 6.6% of the total budget for investment in infrastructure and public works (Makgetla, 2016).

The provincial socio-economic outlook reflects a number of challenges: high unemployment (29%), high poverty levels (53.6%), low economic growth of 1.1% in 2014 and a contribution of 7.7% to the national economy. Furthermore, bulk infrastructure backlogs, a low increase in investment growth and an increase in out migration reflect an economy that is heavily reliant on community services, social grants, remittances from migrants and retail trade (Eastern Cape Economic Development & Treasury, 2014). Poverty will not be eradicated by the creation of larger harbours like Coega and infrastructure. The starting point is human agency, where the population becomes more productive, and urban and rural economies in the province and the country connect more (Bank, 2011).

The private sector investment gap in the province is visible; the public sector plays a major role through its various tiers and departments, especially in terms of job creation. While Non-profit Organisations are not strictly public sector employers, they play a pivotal role in advancing social development within the province's rural areas and receive a significant percentage of their funding from the public sector.

2.6.4.2. PROVINCIAL INVESTMENT OUTLOOK, TRENDS AND INVESTMENT COMPARISON

The provincial investment outlook shows that GFCF growth has been low; from 1995-2015 it grew by about 4%. Current rates of investments growth are insufficient to drive high economic growth. Gross Domestic Investment in machinery and other equipment

declined to 4% in 2012 and provincial GDFI was below the national growth rate of 4.4% (Eastern Cape Economic Development & Treasury, 2014). Compared to other provinces, the EC has lower public and private investment.

The province ranks fifth in terms of capital stock investment, lagging behind Gauteng, KwaZulu-Natal, Western Cape, and Mpumalanga, and on par with Limpopo. Figure 2-2 below shows leaders and laggards in investment trends to date. The province has determined that GFCF of about 20%-25% of GDP would be a suitable target to maintain the required expansion of infrastructure and production capacity (Eastern Cape Economic Development & Treasury, 2014).

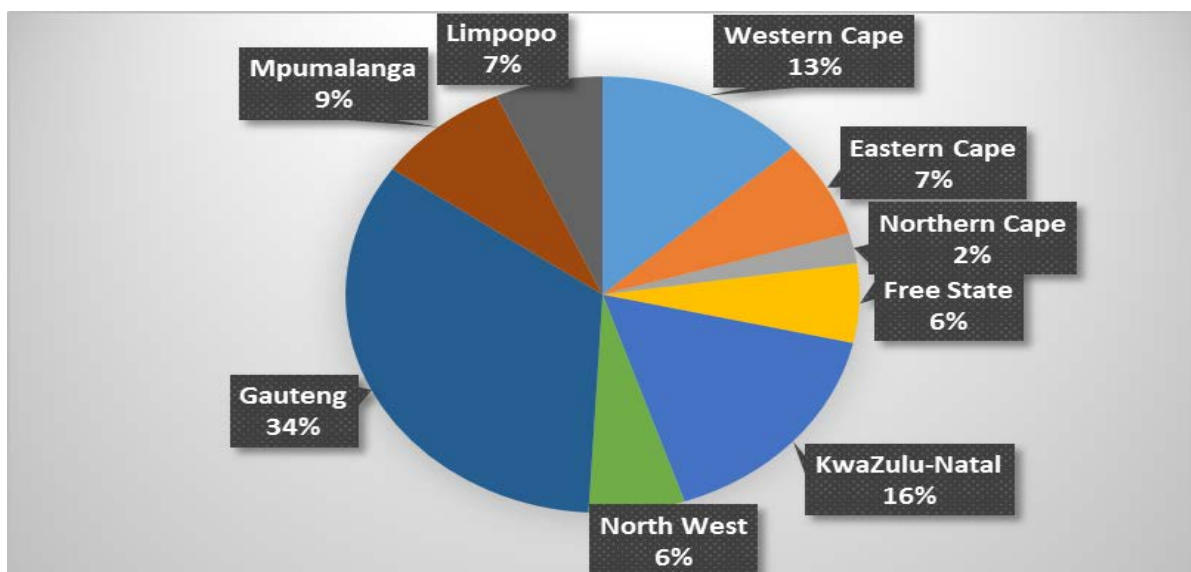


Figure 2-2: National GFCF provincial contribution from 1995-2015

Source: constructed from Quantec - Standardised Regional data

Media announcements issued by the EC Province in 2014 cited prospective investment projects, although some lacked firm time lines. While they will have a huge impact on the provincial economy, since they are located in the metros, they will not change the concentration of the provincial economy. The project amounts and location are detailed in tables 2-1 and 2-2 below.

Table 2-1: Investment announcements in the media

Project	Location	Sector	Amount	Jobs to be created	Time
Automotive works Coega IDZ	Port Elizabeth (PE) (NMBM)	Automotive	R 600 million	1000 Permanent Temp 500	-
Air Products Air Separation Unit Coega IDZ	PE (NMBM)	Manufacturing	R 300 million	120	Q4 2014
REIPPP	Province Wide	Province wide renewable energy	R 1.65 billion	-	-
Eastern Cape Port Expansion	East London, PE (NMBM)	Logistics	R 1.9 billion	-	2014/2015

Source: adapted from (DEDEAT, 2014.)

Table 2-2: Investment announcements in the media: Eastern Cape, Q4 2016

Project	Location	Sector	Amount	Expected jobs to be created	Time line
Komani Industrial Park Revitalisation	Queenstown	Manufacturing	R 22.5 million	Minimum of 1500 jobs	Not Indicated
Ikamva Lethu Citrus project	Sundays River Valley	Agriculture	R 300 million	80 permanent 700 seasonal	7 years
Ntibane Water Supply Scheme	Ntibane & Umzimvubu	Infrastructure	R 114.4 million	Not indicated	Not indicated

Source: adapted from DEDEAT (2016)

2.6.4.3. INVESTMENT ATTRACTION IN THE PROVINCE

The three big provinces (Gauteng, KwaZulu-Natal and Western Cape) have dedicated agencies that promote investment for the entire province. The amount of investment attracted by these provinces suggests that these agencies are making a significant contribution in attracting investment.

The EC uses different approaches to attract investment. The Eastern Cape Development Corporation (ECDC) plays a role and the IDZs in East London and Port Elizabeth have their own strategies. Attracting investment is heavily dependent on funding (tax rebates), political support, adequate infrastructure and a conducive environment. Investment promotion is biased towards FDI rather than private domestic investment in the province (Simayi, 2015). The current framework of both IDZs is not interlinked with the municipalities and this strategy does not seem to be effective. The metros (BCMM and NMBM) have better relations with the ELIDZ and Coega IDZ; when they are not able to assist an investor due to infrastructure constraints, they send them to their respective IDZ. District municipalities face a more serious challenge; they battle with extremely poor infrastructure, are far from IDZs and do not have strong links with them. The current framework only works in metros and IDZs (ELIDZ and Coega IDZ); it does not cater for the rural component of the province. The provincial actual and planned investment (local and international) value in the past five years stood at more than R34 billion. The Coega IDZ received R30 billion, East London IDZ R3 billion and R1.3 billion was allocated to the Joe Gqabi district municipality (ECDC, 2015).

The latest media investment announcement in quarter 4 of 2016 (table 2-2 above) shows that the province is not attracting massive investment. The investment cited totaled less than R450 million, indicating the need for concerted effort to scale up investment in the province.

2.6.4.4. NATIONAL DEVELOPMENT PLAN (NDP) AND PROVINCIAL DEVELOPMENT PLAN (PDP)

NDP:

The NDP sets the ambitious target of raising the rate of investment to GDP from 17% to 30% by 2030. It also emphasises the need for macroeconomic policy certainty and a focus on policies that enable South African companies to be competitive. Furthermore, it states that rising export earnings and increased investment are the key ingredients for service-orientated job creation.

PDP and NDP:

In 2012 the EC established a Planning Commission to develop a provincial development plan (PDP), cascading down or customising the NDP to a provincial level. While a draft plan was formulated, it has yet to be launched. However, it represents a sound broad framework to develop the province. It flags investment as a key area in a growing, inclusive and equitable economy. The plan does not specify the province investment gap or desired rate and does not suggest strategies to close the gap. It also fails to specify the rate of investment required from the public and private sectors as well as FDI to bridge the gap as per the NDP plan.

The EC's PGDP ran from 2004 to 2014. Its vision was to make the province a compelling place to live, work and invest in. The targets included economic growth of 5% and 8% and halving unemployment by 2014. While there has been some progress in terms of infrastructure development, this has not occurred at a sufficiently rapid pace to have an immediate large-scale impact.

The premier of the Eastern Cape stated that, "... the Provincial Development Plan (PDP) has been finalized, the plan envisions empowered citizenry in a thriving province" (Masualle, 2015). While it was announced that it would be in place by the end of 2015, as well as a provincial infrastructure master plan, and an integrated human settlements master plan, all these plans have yet to be finalized.

2.6.4.5. INTERCONNECTION BETWEEN NATIONAL INVESTMENT PROMOTION AND THE PROVINCIAL STRATEGY/ POLICY

There is a level of uncertainty, particularly amongst potential investors with regard to how the South African economy will ultimately be affected at the end of the economic slow-down and how the policy environment for foreign investment will change. Considerations of FDI always involve a balancing act between uncertainty and the basic economic evidence available (Wood & Wentworth, 2014).

While SA has the world's richest mineral deposits, with R36 trillion in platinum, gold, iron ore and coal, this is not enough to satisfy investors (BusinessReport, 2014). Extended labour strikes and regulatory uncertainty caused the stock market values of South African mines to drop to a four-year low compared to their global peers. Furthermore, SA is perceived as one of the most difficult places to do business in the world (BusinessReport, 2014).

As noted earlier, the EC has yet to develop an investment plan. Thus far, only the metros and IDZs have FDI strategies (Somyo, 2015). These are not integrated with the province's priorities (Eastern Cape Economic Development & Treasury, 2014).

2.6.4.6. THE ROLE OF STATE OWNED ENTITIES AND MUNICIPAL AGENCIES IN THE EASTERN CAPE PROVINCE

The role of public entities includes a broad range of contributions to national development. To deliver on their development priorities, these institutions need to be financially sound and self-sustaining (Treasury, 2016). While many SOEs in SA are in good financial health, several are not and they pose a certain element of risk, which is evident in national entities like South African Airways and the South African Post Office. Reforms are necessary to restore financial sustainability (Treasury, 2015). The EC is working on ways to rationalise the number of SOEs by merging some with duplicate functions and addressing non-productive ones. However, it remains to be seen if this will come to fruition as bold political leadership is needed to make such a call (Somyo, 2015).

SOES IN THE PROVINCE:

There is no comprehensive legal definition of national or provincial SOEs, except to say that national public entities mean a national government business enterprise, a board, commission, company, corporation, fund or other entity, which is established in terms of national legislation. Such entities are fully or substantially funded either from national revenue by way of tax, or levies imposed in terms of national legislation and are accountable to parliament (Bronstein, 2016). Provincial government business enterprises and entities mirror the definitions of their national counterparts (Bronstein, 2016).

South African SOEs are causing headaches for the three spheres of government. The EC entities are no exception, with many calling for the number to be reduced and the merging or closure of some. Some are known for poor governance, high salaries for executives and board members and constant government bailouts. There is a risk that state ownership can destroy value if best practices in ownership and proper management should be applied (PWC, 2015). However, SOEs appears to be an enduring feature of the global economic landscape and will remain an influential force for many years to come. As such, it is vital to ensure that, at whatever level of government, they deliver on the desired societal outcomes (PWC, 2015).

The Eastern Cape Development Corporation needs to drive and secure critical investments in order to transform the provincial economy (Somyo, 2015). Its audited status regressed from unqualified with findings to the qualified category due to transactions relating to former President Nelson Mandela's funeral that were not adequately supported. Furthermore, leadership in the EC has not been strong on development, but swayed by party politics and infighting. As noted earlier, the province has launched a study to investigate the rationalisation of the SOEs in the province. These entities are not sustainable on their own; district municipalities and metros have dedicated development agencies, which assist in development and implementation of programmes and projects (Eastern Cape Economic Development & Treasury, 2014).

The former national Minister of Finance made a clarion call to all provinces to review spending on public entities, particularly those providing finance as many duplicate functions and services provided at national level. The intention is to reduce

administration; provinces must work together to consolidate those entities performing similar functions, and those not performing core functions will be closed. Almost all these entities rely heavily on government transfers and there is a need to improve governance and operational efficiencies (Treasury, 2016). If needs be, provincial legislation should be enacted to merge or close overlapping or non-core entities (Treasury, 2016). The proposed series of reforms in public sector institutions aims to strengthen the ability of these institutions to support NDP outcomes (Treasury, 2016). The presidential committee on SOEs recommended a single law for public entities, rationalising their number and mobilising co-investment and technical expertise from the private sector to strengthen their management and managerial capacity (Bronstein, 2016).

MUNICIPAL AGENCIES:

The six district municipalities in the EC have their own agencies. At local government level, municipal SOEs are mainly regulated by the Municipal Systems Act and the Municipal Finance Management Act. Entities that are also companies are governed by the Companies Act (Bronstein, 2016). The role of a development agency is to attract and promote investment, implement municipal programmes, promote the municipality, and seek the private sector's buy-in through investment in certain areas. These utilities can only be established to perform duties that fall within the competence of the parent municipality and are thus constituted in terms of bylaws. Municipal SOEs or agencies are dependent on the mother body, which in turn is dependent on the equitable share from national government. None of the municipalities or metros in the EC are sustainable on their own (StatsSA, 2014).

The district municipalities and metros have dedicated development agencies, which assist in the development and implementation of programmes and projects. They include the:

- Amatole - Amatole Development agency (known as ASPIRE): established in 2005
- OR Tambo - Ntinga OR Tambo Development agency: established in 2002
- Cacadu - Cacadu Development Agency (CDA): established in 2012
- Chris Hani - Chris Hani Development Agency (CHDA): established in 2012

- Joe Gqabi - Joe Gqabi Economic Development Agency (JoGEDA): established in 2012
- Alfred Nzo - Alfred Nzo Development Agency (ANDA): established in 2008

These agencies rely on funding from their parent municipality. Ntinga and ASPIRE have been in existence for the longest, since 2002 and 2005 respectively, while ANDA was established in 2008 and the last three (CDA, CHDA and JoeGEDA) in 2012. Assessing their effectiveness is difficult, as they have not existed for very long. However, ASPIRE has demonstrated great zeal in soliciting revenue from sources other than the municipality. Its role is clearly visible in small towns like Butterworth, Cathcart, and Stutterheim. It is not clear whether the investment attracted by these agencies is public, private or FDI. Furthermore, neither the agencies nor the relevant municipalities have set out a detailed investment strategy. Implementation is not geared to attracting investment but rather implementing the programmes of the parent municipality.

The two provincial metros (NMBM & BCMM) and their development agencies (Nelson Mandela Bay Agency and ASPIRE) present a slightly different picture from that of the district municipalities. Although they are funded by the parent metro, they are able to attract more investment, have more funding, have undertaken bigger projects, have better links with IDZs and have been able to partner in developments around the metros (Simayi, 2015).

2.6.4.7. PROVINCIAL INCOME

Provincial income measures income and expenditure within the province in a particular year. It is categorised in terms of current payments, transfers and subsidies, payments for capital assets and payments for financial assets. The province is confronted by service delivery challenges that include delayed implementation of government projects, lack of adherence to financial management procedures, and corruption and misappropriation of public resources (Masualle, 2014).

In the 2013 budget speech, I noted that Government would focus on cutting recurrent expenditure to sustainable levels through the reduction of waste, corruption and duplication in the functions of government agencies (Masualle, 2014).

Provinces only raise about 3% of their budget from their own revenue, mainly in the form of vehicle, gambling and service fees. From 2010/11 to 2014/15, such revenue increased by 13.4% as provinces headed the call to boost their income, although more than half of such revenue comes from motor vehicle licences (Treasury, 2015). The constraints are due to the gloomy world economic outlook and sluggish economic growth in SA which impacts on the national fiscus (Treasury, 2016). In 2015, the EC intended to expand its revenue base by maximising income from vehicle license fees, health services, and rentals (Somyo, 2015). There is general consensus in the province that current infrastructure expenditure could be improved (Masualle, 2014).

The provincial own revenue of R1.091 billion accounted for 1.6% of its budget in the 2014/2015 financial year and increased to R1.3 billion in 2016/2017, higher than the projected R1 billion (Somyo, 2015, 2016). This is due to increased collections by the Eastern Cape Gambling and Betting board and the Eastern Cape Liquor Board (Somyo, 2016). However, it is limited to one department, Economic Affairs, pointing to weaknesses in revenue collection from other streams such as Transport, Health, and Public Works.

Nationally, 58,4% of households reported that salaries/wages/commission were their main source of income in 2013, followed by grants at 21,6%, other sources at 9.1%, and remittances at 8.6% (StatsSA, 2013). In the EC, 37.4% of the population depends on social grants, compared to Limpopo (32.3%), Northern Cape (31.4%) and Free State (27.5%). In the Western Cape and Gauteng, 72,7% and 72,0% of households confirmed that salaries were their main source of revenue (StatsSA, 2013).

Current account payments constituted 83% of the EC's receipts for the 2012/2013 financial year, with inter-provincial transfers and general subsidies making up 12%, and payments for capital assets 5% (including public sector investment expenditure), with payments for financial assets marginal at 0.01% (ProvincialTreasury, 2014). The largest portion of the provincial budget is allocated to education and health. However, numerous indicators show that such spending has not been efficient in changing outcomes and has been accompanied by low levels of capital expenditure to promote economic development (E. C. P. Commission, 2013). Social expenditure on education and health in particular continue to dominate the province's fiscal policy (E. C. P. Commission, 2013).

According to the (Provincial Treasury, 2012/13), provincial spending is strongly biased towards non-discretionary items such as employee compensation. At 62% to 64% of the total budget, this means that expenditure is not directed at the province's more pressing priorities. The province's wage bill has increased significantly in the past decade, with a cumulative growth rate of 74% between 2008/09 and 2014/2015 (Provincial Treasury, 2012/13). However, this is not always matched by increased productivity (Makgetla, 2016). Current tough economic times require the province to make serious efforts to curb the provincial wage bill over the medium term (Somyo, 2016).

Payment of consultants adds to the salary bill. It remains to be seen if the province will be able to implement the austerity measures that have been rolled out to curb excessive expenditure on travel and subsistence, consultants, venues, catering, the government fleet and technological gadgets given its poor record in implementation and monitoring (Somyo, 2015).

FUNDING MODEL AND RETURNED GRANTS

Over the years, the EC has struggled to spend both its income streams and equitable share; as a result, grants and budgets have gone unspent. Unspent infrastructure grants contribute to slower economic growth. The province has lagged behind on intelligent public sector investment. Overall, it spent R44.095 billion or 71.8% of its adjusted budget of R61.375 billion with projected under-expenditure for the financial year amounting to R435.810 million (Provincial Treasury, 2014). South Africa's provinces receive an equitable share and grant allocation from National Treasury. It would seem illogical for the province to motivate for more funding from National Treasury when the evidence shows that it is not fully utilising its current allocation and that public sector employees lack skills and there is heavy reliance on consultants. While the funding may be insufficient, the model used by government does not seem to be the obstacle in departments like education that returned millions in the last financial year.

Furthermore, it is of major concern that Education, Health, and Roads and Public Works, which represent more than 79% of the provincial budget, received qualified audit opinions (AGSA, 2014).

2.6.4.8. POLITICAL LEADERSHIP:

The EC survived the frontier wars and apartheid oppression. It has also produced renowned leaders, most of whom served in national departments and some on international platforms. However, the current leadership does not seem to be able to address political infighting in the province and voters have started changing their voting patterns. This resulted in the ANC losing support in the NMBM metro for the first time in the democratic SA. In provinces like the EC, wealth creation and the creation of a middle class mainly depend on the state. In order to gain access to wealth, one needs to access political power through the ANC at either provincial or municipal level. The unfortunate scenario is that internal wrangling, and naked battles for power and wealth have compromised not only the stability of the ANC but that of the ANC government (News24Wire, 2015). The EC continues to experience political infighting (State, 2014). Such battles are more intense at municipal level because this is perceived as a 'grave train' (Quintal, 2015). The two significant provincial hubs (NMBM & BCMM) as well as smaller municipalities have witnessed serious political infighting and jostling for positions within the ruling party. The African National Congress (ANC) elective conference of the Eastern Cape strongly re-affirmed the respondent's responses that indeed the province is suffering from poor political leadership that is divided and too weak to provide meaningful direction for the development of the province. The infighting is was more real than imaginary, and provides a strong doubt about the new leadership as it was elected in a very violent manner, some "termed it festival chairs". They were not fighting opposition parties like Democratic Alliance (DA), Economic Freedom Fighters (EFF), they were fighting among themselves (thesouthafrican, 2017)

The new political leadership was elected in a violent conference, and the losing side is still contesting the results in court. The biggest concern currently is the impact on the administration in all three sphere of government; departments, municipalities and public entities or state owned entities. The ANC norm is that the winning camp would want to reshuffle or change the existing leaders in favour of the new camp cadres.

A focused effort is required to coordinate and ensure the success of the various government efforts to maintain upward economic growth. This calls for strong political leadership. Political infighting in provincial departments and local and district

municipalities has destabilised government and delayed economic development. The EC is plagued by two problems, endemic corruption and the under-performance of the state, particularly local government (Quintal, 2015). It remains to be seen if the leadership of the Democratic Alliance (DA) will turn around the fortunes of the NMBM metro for the good of the province. When the two provincial economic hubs sneeze the whole province follows (Quintal, 2015). The BCMM also has new leadership following the axing of its former mayor due to the Mandela funeral scandal and political infighting (Nini & Loewe, 2015). Furthermore, infighting in district municipalities such as Mnquma, Port St Johns, Mbhashe, and King Sabata Dalidyebo hamper progress at this level.

2.6.4.9. THE SKILLS DEPTH OF THE PROVINCE (ATTRACTION AND RETENTION)

Municipalities in the EC suffer a severe lack of skilled workers and poor performance management (AGSA, 2011-2012). The provincial civil service is characterised by poor administrative capacity and lacks systems to achieve the national development mandate (E. C. P. Commission, 2013). Political interference and poor relations between the state and public service unions prompt the migration of skilled personnel (E. C. P. Commission, 2013). Most municipalities in the province lack a long-term strategy to build technical, financial and administrative capabilities. The (E. C. P. Commission, 2013) noted disparities between government programmes and citizens' aspirations, and budgets and service delivery which reflect poor implementation capacity, and a lack of monitoring and evaluation. Furthermore, there is misalignment between the vision of political and administrative leadership (Quintal, 2015).

The three leading provincial economic hubs (Gauteng, KwaZulu-Natal and Western Cape) contrast strongly with the EC in that they show strong political direction and vision, make a meaningful contribution to the country's economy, are able to attract and retain skills and demonstrate stronger administrative capabilities.

2.6.4.10. MIGRATION TO OTHER PROVINCES

The EC's population is declining as citizens migrate to other provinces (Quantec, 2016). The highest number migrates to the Western Cape (39%), with 27% moving to Gauteng, 17% to KwaZulu-Natal, 7% to North West, 4% to Free State, 3% to

Mpumalanga, 2% to Limpopo and 1% to Northern Cape (StatsSA, 2014). The province's population grew by only 13% from 1996 to 2015 (StatsSA, 2014). Both skilled and unskilled workers are migrating.

In terms of unskilled workers, migration is a positive factor as the province is not able to absorb such labour and initiatives like the Expanded Public Works Programme can only absorb so much. On the other hand, migration of the skilled labour force or the 'brain drain' exacerbates skills shortages in the EC and undermines its capacity to implement programs. Some studies attribute outward migration from the EC to limited job creation and opportunities, combined with poor pay (Makgetla, 2016). The challenge that confronts the province is the lack of a retention strategy, particularly for skilled workers. Outward migration has also resulted in a decline in the EC's equitable share and conditional grants from national budgets. The equitable share allocation is determined to a great extent by a formula that takes into account population growth, economic activity, poverty levels and demand for services like education and healthcare; hence, fast-growing provinces receive a higher share than those with stable population numbers (Treasury, 2016). For smaller provinces, it covers the fixed costs of maintaining provincial institutions. Conditional grants are designed to achieve certain goals; provinces and municipalities must meet specific criteria to receive such grants and adhere to spending conditions (Treasury, 2016).

2.6.4.11. EASTERN CAPE METROS

The EC provincial economy includes two Metros, NMBM and Buffalo City that have development agencies, IDZs and development corporations based in East London and Port Elizabeth. The six district municipalities have dedicated development agencies, which assist in the development and implementation of municipal programs or projects. However, they have not performed consistently. The EC economy is centered around NMBM and BCMM that contribute about 34% and 21%, respectively to the provincial GDP. South Africa's eight metros contribute 59% of the country's GDP (Mike, 2013). Although these metros are the engines of the EC economy, they lag behind other metros (Quantec, 2012).

Nelson Mandela Bay Metro and BCMM are home to only 28% of the provincial population, but contribute 65% of GVA. The remaining 35% of GVA is shared between six district municipalities, which account for 72% of the provincial population

(GlobalInsight, 2013). The metros are growing at a very slow rate compared to the province's GDP growth. NMBM and BCMM have the smallest economies among the eight SA metros, alongside Mangaung (Bloemfontein) (Mike, 2013).

Table 2-3 below presents a snapshot of SA's eight metros and estimates of their 2015/16 budgets.

Table 2-3: Metro budgets 2015/16

Number	Metro	Amount
1.	City of Johannesburg	R 52.6 Billion
2.	EThekweni (Durban)	R 39.1 billion
3.	City of Cape Town	R 30,9 billion
4.	Ekurhuleni Metropolitan (East Rand)	R 29.5 billion
5.	Nelson Mandela Bay Metropolitan (Port Elizabeth)	R 8.9 billion
6.	Mangaung Municipality (Bloemfontein)	R 7.4 billion
7.	Buffalo City (East London)	R 6.3 billion
8.	City of Tshwane (Pretoria)	R 6.2 billion

Source: constructed by the author

The forerunners are the City of Johannesburg, followed by EThekweni, the City of Cape Town and Ekurhuleni. The EC metros' combined budget is less than R16 billion, with each having a budget of less than R10 billion.

DISTRICT MUNICIPALITIES (DM)

The EC has six district municipalities: Cacadu, Amathole, Chris Hanu, Joe Gqabi, OR Tambo and Alfred Nzo. These districts make a very small contribution to provincial

output; their combined contribution to the provincial GDP contribution is 46%. However, as noted earlier, 70% of the population resides in rural municipalities. In contrast, the province's metros contribute 54% to the provincial economy and are home to industries such as VW and Transnet, both IDZs, the IDC, FAW, and Mercedes Benz.

The district municipalities fit the definition of rural areas that are characterized by sparsely populated areas in which people farm or depend on natural resources. Villages and small towns are dispersed throughout these areas. They include large settlements in the former 'homelands' of Transkei and Ciskei, whose inhabitants depend on remittances from migrant workers and government grants for survival, and typically fall under a traditional land tenure system (RDP, 1997). From 2010-2014, grants and subsidies made up 73% of the rural municipalities' income (StatsSA, 2014).

THE MANDATE OF MUNICIPALITIES IN SOUTH AFRICA

Urban municipalities are able to raise revenue through billing for services, while poor and rural municipalities receive higher per capita transfers to fund free basic services (Treasury, 2015; 2016). Metros derive only 19% of their revenue from transfers, whereas district municipalities, which provide services to rural areas derive 80% (Treasury, 2016).

Overall, in 2014, 32.5% of South African municipalities' revenue was derived from grants and subsidies, followed by the sale of electricity (28.9%). Property rates contributed 14.5%, other revenue (fines, licenses and permits, public contributions and donations, etc.) 9.6%, sale of water 8.5%, sewage and sanitation charges 3.4% and refuse removal charges 2.7% (StatsSA, 2014). On the side of expenditure, the largest contributor to total municipal operating expenditure was personnel costs (26.1%), followed by electricity purchases (22.1%), depreciation and amortization (9.4%), other expenditure (9.3%) (collection costs, loss on disposal of property, plant and equipment, impairment loss, etc.), bad debts (6.4%), general expenditure (5.9%), purchase of water (5.3%), contracted services (4.8%), repairs and maintenance (4.7%), interest paid (2.5%), grants and subsidies paid (2.3%) and remuneration of councilors (1.2%) (StatsSA, 2014). Many municipalities still fail to collect amounts

owed to them. The EC provincial treasury intends to work closely with municipalities to enhance their billing systems to maximise revenue generation (Somyo, 2016).

(Mike, 2013) raises the issue of the strategies that could be adopted to promote investment in SA's rural areas, in the former Bantustan and non-Bantustan areas. For the EC to develop, the small coastal cities and rural municipalities must grow over the next five to 15 years. There is a lack of available data on district municipalities' ability to attract private investment and FDI. This leads to the question of efforts made thus far and the success or failure of such attempts.

The national framework for Local Economic Development (LED) (2006-2011) aimed to support the development of sustainable local economies through integrated government action. It promoted a strategic approach to the development of local economies and a shift away from narrow municipal interests focussed on government inputs to ad-hoc projects (SALGA, 2006). Furthermore, the framework aimed to bring national government, SOEs and communities together to foster LED (SALGA, 2006). A revised framework was issued for 2012-2016 that responded to the challenges identified in the implementation of the 2006 framework. These included the meaning of LED, poor intergovernmental relations, non-productive partnerships, a lack of clear communication and knowledge sharing, capacity constraints, a differentiated approach to LED support, funding, poor investment in economic infrastructure and information, and insufficient support for an inclusive economy (Ndaba, 2014). The new strategy aimed to go beyond providing proposals, guidance and approaches (Ndaba, 2014). It committed relevant stakeholders to specific time bound and resourced actions to improve LED. The framework is certainly not a new economic policy document for local government; it consolidates existing national development programmes and focuses on their relevance to the local development context. However, it is fair to say that local government across SA is struggling to fulfil its development mandate. Local economic development implementation is erratic and few successes have been recorded. Furthermore, in terms of poverty and unemployment, the EC is a dual economy, with developed metros and underdeveloped rural or district municipalities. Two-thirds of its population resides in district municipalities with high poverty and unemployment rates. The largest proportion of current provincial investment is channelled to the metros, with rural

municipalities sustained by remittances and social grants. According to (StatsSA, 2013), 57% of EC households receive social grants, compared to 45% in the country as a whole. The uncertain future of the mining industry and the Marikana massacre have long-term implications for the struggling district municipalities that rely on remittances.

The economic structure of the district municipalities is similar to that of the province that is dominated by the tertiary and secondary sectors, although the district municipalities are rural with vast arable land. Government services, wholesale and retail and remittances are the main sources of income.

Finally, weak relationships between the governance structures of district municipalities and traditional authorities have hampered investment in the province. Traditional leaders are not focused on economic development, but on their role as custodians of culture and customs. The question of whether these leaders are excluding themselves or if they are being excluded from the development agenda needs further investigation. Private investment in rural areas would enable the utilisation of fallow land, and expand cultivation under irrigation and labour-intensive crops.

2.7. CHAPTER SUMMARY

A country's development is not possible without GFCF. Without adequate investment, an economy cannot grow to its full potential; hence, investment is regarded as the engine of growth. This study focused on the gross private domestic investment component of GDP in the dependent sectors (private and public) in the EC Province.

The literature review commenced with an examination of theories of economic growth, the role of GFCF, private investment theories, foreign direct investment theories, and public investment theories. The review of the empirical literature included studies in developed countries and covered private investment performance, the weak economic environment and financial constraints and policy uncertainty (policy efforts aimed at expansion, FDI and public investment). The section on developing or emerging countries focused on public investment, FDI and private investment.

The review of the literature on SA examined investment trends, savings as a pillar to fund investment, public investment, FDI and private sector investment. Turning to the EC, this chapter investigated the provincial socio-economic and investment outlook, investment trends and attraction and the NDP and PDP. It also examined the role of SOEs and municipal agencies in the province, provincial income, political leadership, the EC's skills depth, migration to other provinces, and EC metros and district municipalities.

Chapter 3 presents the research methodology employed to conduct this study.

CHAPTER 3 RESEARCH DESIGN, METHODOLOGY AND DATA COLLECTION

This chapter presents the research design and research methodology employed to conduct this study. All research is based on a philosophical framework. The research design sets out the overall framework of a study and maps the plan to gather and analyse data (Panneerselvam, 2014). The framework includes identification of the total population, the sample size and the sampling procedure. This chapter also discusses validity and reliability, the ethical considerations taken into account in conducting this research, and the study's limitations.

3.1 RESEARCH DESIGN

The research design provides a road map for a study (Mertens, 2014; Panneerselvam, 2014). It details all the steps to be followed and covers the. research topic and problem, research strategies and paradigms, data collection and analysis, the study's limitations, and validity and reliability (Cohen, Manion, & Morrison, 2013).

3.2 RESEARCH METHODOLOGY

Mixed research methods were employed to conduct this study. A mixed methods approach enables a researcher to broaden understanding by incorporating both qualitative and quantitative research, or use one approach to better understand, explain and build on the results from the other approach (Creswell & Plano Clark, 2011). Both quantitative and qualitative data are collected and rigorous procedures are employed in data gathering and analysis. Mixed methods research enables multiple worldviews to emerge (Bryman, 2015). It is practical because people tend to solve problems using both numbers and words. Furthermore, it combines inductive and deductive thinking, which enhances validity (Creswell & Plano Clark, 2011).

The mixed methods approach enables confirmatory and exploratory questions to be posed simultaneously (Hair, Money, Samouel , & Page, 2011). Quantitative and qualitative methods offer advantages and disadvantages.

Quantitative research requires imagination, patience and discipline in the planning and design stages of the research project: developing questionnaires, data analysis, validity and reliability and write-up (Davies & Hughes, 2014). Quantitative research primarily uses numerical methods and causal explanation and primarily answers what or how many questions.

Econometrics analysis was conducted as part of the quantitative research, after the completion of fieldwork. It was employed to calculate the investment gap and investment forecasting. This is explained in detail in chapter 6.

A quantitative research method is more useful when a researcher is looking for causal explanations, by using statistics such as correlations, frequencies, and means (Bryman, 2015). Table 3-1 presents the advantages and disadvantages of quantitative research.

Table 3-1: Advantages and Disadvantages of Quantitative Research

Advantages	Disadvantages
Quantitative research enables research on and description of social structures and processes that are not directly observable.	Quantitative research compresses and simplifies complex issues.
Quantitative research is very useful to obtain data that allows quantitative predictions to be made.	The researcher may miss phenomena because the focus may be on proving a theory or hypothesis.
Quantitative research findings can be generalised, when the research is replicated among many different populations and subpopulations.	It is only applicable to quantifiable and measurable phenomena.
Data collection in quantitative research is quick and easy (e.g., telephone interviews, surveys).	Analysing a large amount of data can be expensive as computer software is required.
Analysis and explanation of (causal) dependencies between social phenomena.	Time consuming to design questionnaires, testing and validity.
It provides precise, quantitative numerical data and is very useful for a large sample size.	

Source: Adapted from (Hoque, 2014)

Qualitative research encompasses several research approaches. However, they have two things in common (Leedy & Ormrod, 2010). The first is that such research focuses on phenomena that occur in natural settings (the real world). The second is that it

captures the complexities of the identified phenomenon (Conyers Jr, 2016) (Leedy & Ormrod, 2010). Qualitative research requires careful thought from the onset, as it calls for mental agility, flexibility and alertness during data collection and analysis and write-up (Davies & Hughes, 2014) (Hoque, 2014); table 3-2 details the advantages and disadvantages of qualitative research.

Table 3-2: Advantages and Disadvantages of Qualitative research

Advantages	Disadvantages
Qualitative research can be done in a short space of time. It yields in-depth information and is cost-effective.	It takes time to solicit information and securing interviews can be a challenge.
It gives the researcher the opportunity to be involved and interrogate issues.	In some instances, deviation from the topic may occur.
Qualitative research offers flexibility.	The research findings are not generalizable.
Interviews yield in-depth information.	Interviews are not always ideal to solicit sensitive information.

Source: Adapted from (Hoque, 2014)

This study used a mixed research method because it is a powerful tool that bridges the divide between quantitative and qualitative research. The mixed method combines positivism and interpretivism to come up with critical realism (Hussein, 2015).

The study is centred on a critical realism paradigm. It is a combination of the belief in an external reality (an objective truth) and rejection of the claim that such reality can be objectively measured (Hair Jr, Wolfinbarger, Money, Samouel, & Page, 2015). Critical realism enables a researcher to understand the world more deeply by moving beyond the boundaries of positivism and interpretivism (Sekaran & Bugie, 2014).

A mixed research method combines confirmatory and exploratory research questions (Hair Jr et al., 2015) (Creswell & Plano Clark, 2011; Venkatesh, Brown, & Bala, 2013).

(Venkatesh et al., 2013) state that the advantages of the mixed research method include:

- It yields a complete picture of a phenomenon.
- Qualitative and quantitative views provide complementary perspectives on a problem or relationship.
- Questions can be developed and expanded from different angles.
- Confirmation and collaboration may assist in drawing inferences obtained from the other approach.
- The mixed method is diverse and compensates for the weaknesses of quantitative and qualitative approaches.

This study focused on GFCF as catalyst for economic growth. (Ugochukwu & Chinyere, 2013) argue that political, cultural, technological and entrepreneurial factors impact on development (Jhingan, 2007) (LINH, 2013; Nwakoby & Bernard, 2016). The mixed methods approach, which entailed fieldwork and questionnaires, was intended to capture political, cultural, technological and entrepreneurial dynamics in the EC. This approach was employed to understand why the public and private investment rates in the EC have been so low in the post-democratic era, and to explore the hindrances to investment attraction and what can be done to increase investment. The study thus combined the descriptive nature of quantitative research and the exploratory nature of the qualitative approach.

3.3 CONTRIBUTION TO KNOWLEDGE

The purpose of conducting research is to generate new knowledge, stimulate thinking and make a contribution to a school of thought (Cassim, 2011). The researcher identified low investment trends as a problem in the EC and the study aimed to assist the province in disentangling this problem. It thus contributes new knowledge to the provincial government, district municipalities, the private sector and above all, contributes to the academic field.

3.4 RESEARCH PROBLEM

Low levels of public and private investment in economic infrastructure in the EC have exacerbated the province's lack of competitiveness (Lewis, 2013). The EC recorded annual investment growth of only 1.5% from 1996 to 2015 while Gross Domestic Fixed Investment accounted for about 15.6% of GDP in 2010, compared to 18.9% for SA as a whole (E. C. P. Commission, 2013). Current rates of investment are insufficient to drive economic growth; the rates have not changed significantly since 1996 (Mike, 2013).

3.5 RESEARCH OBJECTIVES

The broader research objective was to generate knowledge for the province in scaling-up large investments with the highest multiplier effect (advance the current investment model) or developing a fresh investment model. The research objectives were to:

- 1) Analyse the determinants of Gross Fixed Capital Formation (GFCF)
- 2) Identify the factors that contribute to low investment trends (the investment gap) in the province
- 3) Determine what can be done to attract more investment to the province
- 4) Suggest an investment model to close the investment gap in the EC
- 5) Identify the role of political leadership in attracting investment

3.6 RESEARCH QUESTIONS

- 1) Why has the rate of investment been low in the EC, and what can be done to increase it?
- 2) What factors contribute to low investment in the province?
- 3) Is there an investment gap in the province?
- 4) What model would be appropriate to fill the investment gap in the EC?
- 5) Is there a relationship between political leadership and investment growth?

3.7 STUDY POPULATION AND SAMPLE

According to (Wiid & Diggins, 2013), a population is the total group of people or entities (social artefacts) from whom information is required. As shown in table 3-3, below, the study population comprised key government departments in the province, metros, district municipalities, and strategic partners.

The study population and sample was made up of two components: qualitative and quantitative.

3.7.1 QUANTITATIVE RESEARCH SAMPLE

Probability sampling was used to select a sample for the quantitative aspect of the study and a proportionate stratified random sampling technique was used to design the sample. In this method, the population is divided into meaningful segments and thereafter into proportions (Bryman & Bell, 2015). This is an efficient sampling method although it is time consuming and the stratification needs to be meaningful (Kelly, Lesh, & Baek, 2014).

The sample for the quantitative research sample was drawn from a wide range of participants within the province in the private and public sectors. The input of foreign-owned enterprises was solicited through the Chamber of Business, which also incorporates the private sector and was a convenient way to capture their views. The private sector in the EC is organised through various institutions, including business chambers (Border Kei and Nelson Mandela Bay) (E. C. P. Commission, 2013).

In order to ensure a high level of confidence, the researcher aimed for a return rate of 70% of the questionnaires. The total number of returned questionnaires amounted to 152 out of the sample population of 200, a response rate of 76%. For a total population of 200 the proposed sample size or target population should be 144 or 63% (Sekaran & Bugie, 2014). Table 3-3 details the sample population and size.

The required sample size to conduct a research study is at least 30 elements or respondents (Supranto, 2014). A sample size greater than 30 and fewer than 500 is adequate for most research (Sekaran & Bugie, 2014). The sample population for this study was 200 participants and 152 respondents was considered appropriate as it fell within the range suggested by (Supranto, 2014).

The contact details of the sample population were sourced through the databases of the ECSECC, ECPC, and provincial government departments, municipalities, banks, and business formations and chambers.

Table 3-3: Sample Population

Stakeholder	Number of segments	Total Population	Returned Questionnaires	Sample response rate of 76%
Provincial departments: (2 Treasury, Office of the Premier, 2 Economic Development, Roads & Public works, Education, Health, 2 Rural Development & Agriculture (and ECRDA), Local Government and traditional affairs)	13	30	25	83%
SOEs: Eskom Transnet (2, East London and Port Elizabeth), Eastern Cape Development Co-operation (ECDC) Eastern Cape Socio-Economic Council (ECCSEC) Eastern Cape Gambling Board	5	20	15	75%
Metros (NMBM & BCMM) and their development agencies Nelson Mandela Bay Agency & Buffalo City Development Agency	4	20	15	75
District Municipalities 6 & Development Agencies 6	12	45	40	89%

(Cacadu, Amatole, Chris Hani, Joe Gqabi, OR Tambo & Alfred Nzo) Development Agencies: 6 Amatole - Amatole development agency (ASPIRE) OR Tambo - Ntinga OR Tambo development agency Cacadu – Cacadu Development Agency (CDA) Chris Hani - Chris Hani Development Agency (CHDA) Joe Gqabi - Joe Gqabi Economic Development Agency (JoGEDA) Alfred Nzo - Alfred Nzo Development Agency (ANDA)				
Development finance institutions and IDZs (IDC, COEGA IDZ, ELIDZ, DBSA)	5	25	20	80%
Banks (Standard Bank, Nedbank, ABSA, Capitec, and FNB)	5	20	5	25%
Private sector through the Border Kei & NMBM Chambers and business formations in all 6 district municipalities	9	40	32	80%
Total	53	200	152	76%

Source: constructed by the author

3.7.2 QUALITATIVE RESEARCH SAMPLE

Purposive sampling was employed for the qualitative aspect of the research. This is a non-probability form of sampling, and the findings cannot be generalised to the population (Bryman & Bell, 2015). The goal of purposive sampling is to sample cases/participants in a strategic way, so that those sampled are relevant to the research questions (Sekaran & Bugie, 2014). The envisaged sample population at the start of the research study was 20 participants, in total 25 interviews were done. The interviewees included practitioners, experts, decision makers, and executives who are influential in drawing up investment budgets and making investment decisions. The experts were chosen from government departments, metros, district municipalities, development agencies, banks, development finance institutions, SOEs and business formations. This sample was selected due to their expert insights on investment and economic growth in the province. The study employed judgmental sampling, which is useful in collecting “specialised informed inputs” on the area researched (Sekaran & Bugie, 2014). The sample chosen was most relevant to the research topic and questions.

3.8 DATA COLLECTION

Data collection is the process of gathering information for a particular research study or project. The study used primary (qualitative and quantitative research) and secondary data.

3.8.1 DATA COLLECTION FOR QUANTITATIVE RESEARCH COMPONENT

The data collection tool employed should fit the study's aim and objectives (Nardi, 2013). There are two kinds of data, primary and secondary. Primary data is collected through field work using surveys and in-depth interviews and secondary data may be collected using the existing literature (Creswell & Plano Clark, 2011; Nardi, 2015). This study used a self-administered questionnaire to gather data, with a combination of open- and closed-ended questions.

In quantitative research, surveys, experiments and content analysis can be employed to collect data (Hair Jr et al., 2015). The survey was the main data collection tool in this study.

Surveys/ questionnaires:

Questionnaires have both advantages and disadvantages (Andrews & Hampel, 2015; Nardi, 2015).

Table 3-4: Advantages and disadvantages of survey questionnaires

Advantages	Disadvantages
Cost effective, particularly for a large sample and widespread area.	Time consuming and intense reading is required.
Questionnaires reduce the bias of the data.	Questionnaires are not suitable for the less educated or visually impaired people (Nardi, 2013)
Easier and quicker to train field workers.	There might be gaps between what people say they do and their actual jobs.

Ideal for establishing perceptions and opinions.	The return rate can be very low.
Better for sensitive and personal topics as confidentiality is guaranteed.	Closed-ended questionnaires can be restrictive.
It is easy to replicate the study.	It can be difficult to generate validity and reliability.
Questionnaires can address multiple questions in one survey.	Some questionnaires are very long and complicated and may lead to serious errors.
It is easy to code or analyse closed-ended questions	Easy to skip confusing questions and overlook some.
It is easy to compare with other relevant studies using similar questions.	There is no guarantee that the respondent was the person that was expected to complete the questionnaire.
Questionnaires are suitable for probability sampling and more accurate generalizability.	Designing a questionnaire is a struggle in itself and it can also be costly.

Source: Adapted from (Nardi, 2015)

Prior arrangements were made with the respondents and a letter of request to conduct the research (gatekeeper's letter) was sent to the Office of the Premier, metros, district municipalities, business formations or chambers, SOEs, universities and banks.

A Likert scale was used in section B of the questionnaire to understand the respondents' perceptions and opinions (Sekaran & Bougie, 2009). A Likert scale is appropriate to measure opinions, attitudes and beliefs. The respondents were presented with a statement and were required to indicate their degree of agreement or disagreement in a multiple choice format. Likert scales are used worldwide in

surveys as they are easy to use, understandable and the responses are quantifiable and can be subjected to some form of mathematical analysis. It is easy to code participants' responses as a single number is used. Table 3-5 below shows the Likert scale and numbering used in this study.

Table 3-5: Likert Scale

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Source: Constructed by the author

Tables 3-6 and 3-7 show examples of cases where a table was provided for selection and filling in information.

Table 3-6: Selection and filling

Below 5%	5-10%	11-15%	Above 15%

Source: Constructed by the author

A rating scale was also provided for some questions.

For example, rate on a scale from 1 to 5 (1 = not at all important; 5 = very important) the importance of each of the following investments in the province.

Table 3-7: Rating scale on the importance of investments in the province

Investment in...	Importance
4.6.1 Agriculture, forestry, fishing and mining	
4.6.2 Manufacturing, transport, logistics, agro-processing	
4.6.3 Bulk & economic infrastructure	
4.6.4 Buildings & industrial hubs	
4.6.5 Health and Education	

Source: Constructed by the author

The latest statistical software (SPSS) was used to analyse the quantitative data; the analysis is explained in detail in section 3.10.

The questionnaire for the quantitative research consisted of three sections:

Introductory Section:

- Project title, questionnaire number, contact details for the researcher, supervisor and university research office and an explanation on the respondent's role.
- Instructions on how to fill in the questionnaire and contact details
- Assurance of confidentiality
- Declaration and consent form for the respondent's signature.

Section A:

This section captured demographic details.

Section B:

This section posed questions designed to answer the research questions:

1. Factors that would entice or propel you to invest in the province
2. Factors that contribute to low investment trends in the province
3. Attracting more investment to the province

4. The provincial investment gap and target
5. The role of political leadership in attracting investment

3.8.2 DATA COLLECTION FOR QUALITATIVE RESEARCH COMPONENT

This primary data was collected via interviews with experts and decision makers in the EC from the private and public sectors.

Qualitative data collection methods include observation, in-depth interviews, focus groups, documents, archives and historical research (Cassim, 2011). There are three types of in-depth interviews (Van Teijlingen, 2014):

Structured interviews - have a set of predetermined questions with fixed answers. They mainly consist of closed-ended questions. Structured interviews are used when the interviewer has a list of predetermined questions to ask of respondents either personally, or via telephone or PC media (Sekaran & Bugie, 2014).

Semi-structured interviews - the interviewer poses standard and flexible questions which may include a follow-up question/s (Cassim, 2011). Open- and closed-ended questions are used (Van Teijlingen, 2014).

Unstructured interviews - in an unstructured interview the majority of the questions are open-ended. Such interviews bring some preliminary issues to the fore (Sekaran & Bugie, 2014).

Three pre-consultation meetings were held with research experts and investment practitioners in the EC before the research study was presented and approved by the University of KwaZulu-Natal's Higher Degrees Committee in the Graduate School of Business. The interviews were unstructured and the conclusions motivated the need for the study and enabled the framing of the research questions.

Semi-structured, in-depth interviews were personally conducted by the researcher. They were considered appropriate as such interviews offer flexibility in adapting the questions as the researcher proceeds with the interviews (Hair Jr et al., 2015; Sekaran & Bugie, 2014).

Interviews were conducted with 20 participants, including practitioners, experts, decision makers, and executives, who are influential in drawing up investment budgets

and making investment decisions. The experts were chosen from government departments, metros, district municipalities, development agencies, banks, development finance institutions, SOEs and business formations. The sample was selected due to their insights into investment in the province (Sekaran & Bugie, 2014). While saturation point was reached at 18, the researcher decided to continue to reach the total sample of 20 in anticipation of additional views, which might be different. No different issues emerged. An additional five interviews were conducted on specific issues that emerged from the research and needed further clarity. In addition, the researcher attended two conferences held in the province during the data collection period and gathered information related to the study.

Secondary data refers to information gathered by someone other than the researcher. Such data can be internal or external to the organisation and can be accessed through the internet, and perusal of recorded, published and unpublished data (Sekaran & Bugie, 2014). The secondary data for this study was collected from national reports, provincial annual reports, and reports from metros, district municipalities, research entities, and SOEs, as well as the academic literature (Van Teijlingen, 2014).

3.9 PILOT STUDY

Pilot studies are vital components of a good research design (Glaze & Ellis, 2003). While they do not guarantee the success of a study, they increase its chances of success (Holdridge & Grenke, 1971).

As noted earlier, a pre-consultation meeting was held with research experts and practitioners in the EC before the research study was presented and approved by the University Higher Degrees Committee in the Graduate School of Business. These yielded questions that were framed to suit both the survey and the interviews.

A pilot study helps to examine and enhance a study's internal validity and reliability. In this instance, it was conducted to ensure that the final questionnaire was coherent, free from omissions and did not have layout problems and grammatical errors. A self-administered questionnaire was sent to eight people working in the EC and two that had previously worked in the province and amendments were made where necessary.

3.10 DATA ANALYSIS

Data analysis is the process of analysing the collected data from various sources and interpreting it so that it can bring meaning and clarify issues (Pillay, 2014). The data can be presented in a qualitative or quantitative form, thereby making interpretation of the findings fit the study's objectives (Nardi, 2013).

Mixed methods data analysis consists of analytic techniques applied to both the quantitative and qualitative data as well as to the mix of the two forms concurrently and sequentially in a single project or multiple projects (Creswell & Plano Clark, 2011). This is known as triangulation. It is associated with mixed methods and is highly regarded as the researcher can be more confident in a result if the use of different methods or sources leads to similar results (Sekaran & Bugie, 2014). Data was gathered from several sources at different times (triangulation), and analysed (Sekaran & Bougie, 2012). Sequential and complementary analysis was employed.

A sequential examination was undertaken of the data to further elucidate and explain the findings of the quantitative analysis (Quantitative + Qualitative) (Swartout, 2014). Complementary analysis was conducted to obtain in-depth understanding (Quantitative - Qualitative) (Swartout, 2014). The quantitative data is analysed, followed by the qualitative data analysis; similarities are pointed out in table 3-8 below.

Table 3-8: Complementary Analysis

Quantitative questions (Questionnaires)	Qualitative questions (Interviews)
Questions 1 and 2	Questions 1, 2 and 3
Question 3	Question 3
Question 4	Question 3
Question 5	Questions 5.1 and 5.2

Source: Constructed by the author

3.10.1 QUANTITATIVE DATA ANALYSIS

The following activities were undertaken to analyse the quantitative data:

- Descriptive statistics including means and standard deviations, where applicable. Frequencies are represented in tables or graphs.
- Chi-square goodness-of-fit-test: A univariate test, used on a categorical variable to test whether any of the response options are selected significantly more/less often than the others. Under the null hypothesis, it is assumed that all responses are equally selected.
- Binomial test: Tests whether a significant proportion of respondents select one of two possible responses. This can be extended when data with more than two response options is split into two distinct groups.
- Pearson's correlation: Correlations measure how variables or rank orders are related. Pearson's correlation coefficient is a measure of linear association.
- One sample t-test: Tests whether a mean score is significantly different from a scalar value.

3.10.2 QUALITATIVE DATA ANALYSIS

Thematic analysis is very similar to content analysis, but pays more attention to the qualitative aspects of the material analysed (Joffe, 2012). Content analysis is the accepted method of examining texts in mass communications research, most numerical descriptions of a given text, or a series of images (Joffe, 2012; Joffe & Yardley, 2004). This research study used themes and content analysis to analyse the qualitative data collected through semi-structured interviews.

3.11 BIAS

Study bias can be defined as a systematic error built into the study design. The private and public (government and municipalities) sectors tend to blame each other. To circumvent this, the research included diverse views from these stakeholders to minimise bias. The study also used mixed methods for a wider sample for the same purpose. The sampling methods used for the quantitative and qualitative studies differed and the intention was to minimise any bias.

Furthermore, a probability sampling design was used for the quantitative aspect of the study and a proportionate stratified random sampling technique was used to design the sample.

The qualitative research used purposive sampling that enables participants to be selected in a strategic manner so that those sampled are relevant to the research questions. The sample chosen was relevant to the research topic and questions as it included key investment decision and policy makers in the public and private sectors. The participants were chosen from government departments, metros, district municipalities, development agencies, banks, development finance institutions, SOEs and business formations.

3.12 VALIDITY AND RELIABILITY

A research study can only be accurate if its findings are valid and reliable (Gamede, 2013). The reliability and validity of a research project determines its success or failure (Pillay, 2014). Although research methods should be determined to a great extent by the aims and context of the research, they should also have strong regard for quality criteria (Cassim, 2011).

Such scrutiny gives a researcher confidence when speaking about his/her work on academic platforms, and in seminars and conferences (Bush, 2007). For a study to be accurate, it has to go through some form of a test or measurement of the data tools. Reliability and validity are the contributing variables in the transferability and generalization of the study (Nardi, 2013).

3.12.1 VALIDITY:

To strengthen the quantitative validity, a pilot study was conducted to improve content validity. In validating the questionnaire, content validity was undertaken to check that the questions asked and the data received would adequately address the research objectives. Criterion validity was also employed with experts and people who worked in a similar environment in KwaZulu-Natal Province.

3.12.2 RELIABILITY:

In quantitative research, reliability mainly refers to a study's consistency or reliability (Hoque, 2014). Well-designed studies with good reliability could be repeated at different times or using a different population and produce comparable results. Reliability is concerned with the question of whether the study results are repeatable with regard to the quantitative aspect of the research (Noble & Smith, 2015). The reliability of a quantitative research study focuses on internal consistency; as such, a questionnaire can be measured using statistical procedures such as Cronbach's alpha coefficient or splitting all the responses to a question into two sets, totalling their scores and calculating the correlation between them; this is known as a split-half test (Hoque, 2014).

In qualitative research, validity and reliability refer to the trustworthiness of the procedures and data generated. Keeping detailed notes from interviews or during data collection is another way to confirm reliability. Qualitative content analysis is particularly reliable for handling data. Voice recordings and accurate transcription were used by the researcher to strengthen the reliability of the data (Venkatesh et al., 2013). Computerised data analysis, NVivo, was used as a way to enhance such reliability. Triangulation of data assisted in ensuring the consistency and comprehensiveness of the study.

3.13 ETHICAL CONSIDERATIONS

The researcher complied with the requirements set down by the University's Ethics Committee and adhered to the University's Policy on Research Ethics. The Graduate School of Business' Higher Degrees Committee approved the research and the questionnaire was sent to the Research Office before embarking on fieldwork.

The questionnaire was accompanied by a covering letter that detailed the research topic, and the study's purpose and objectives as well as the respondents' role in the study and the contact details of the supervisor and university research office should there be a need for clarity or verification, or should any misunderstandings arise. The participants' identities were protected and their responses were treated with the utmost confidentiality.

3.14 CHAPTER SUMMARY

The chapter described the research design and research methods used in this study. A mixed research methodology was employed. The study population and sample size were discussed as well as data collection and analysis. The chapter also touched on bias, validity and reliability, the ethical considerations taken into account, the study's contribution to knowledge, and its limitations.

Chapter 4 presents and discusses the study's quantitative findings.

CHAPTER 4 RESULTS AND DISCUSSION OF QUALITATIVE DATA ANALYSIS

This chapter presents and discusses the quantitative research findings. The primary data presented in this chapter were gathered by means of a questionnaire, while the secondary data was collected from books, government publications, reports, newspapers, conference papers, published statistics, investment seminars, and websites and youth discussion forums.

4.1 RESPONSE RATE

In order to improve the level of confidence in the study's findings, the researcher aimed to achieve a response rate of more than 70%. Due to limited resources and a low response rate in some sectors 152 questionnaires were returned from a sample population of 200. As detailed in table 4-1, this represents a 76% response rate. Some organisations refused to participate and in others, the response rate was lower than expected.

Table 4-1: Responses from Administered questionnaires

Stakeholder	Number of segments	Total Population	Returned	Response rate of 76%
Provincial departments: Treasury (2), Office of the Premier, Economic Development (2), Roads & Public Works, Education, Health, Rural Development & Agriculture (and ECRDA) (2), Local Government and Traditional Affairs)	13	30	25	83
SOEs):	5	20	15	75

Eskom, Transnet (East London and Port Elizabeth)				
Eastern Cape Development Co-operation (ECDC)				
Easter Cape Socio-Economic Council (ECCSEC)				
Eastern Cape Gambling Board				
Metros (NMBM & BCMM) and their development agencies	4	20	15	75
Nelson Mandela Bay Agency & Buffalo City Development Agency				
District Municipalities (6) and their development agencies (6): 6 + 6 =	12	45	40	89
(Cacadu, Amatole, Chris Hani, Joe Gqabi, OR Tambo & Alfred Nzo)				
Development Agencies: 6				
Amatole - Amatole Development Agency (ASPIRE)				
OR Tambo - Ntinga OR Tambo Development Agency				
Cacadu – Cacadu Development Agency (CDA)				
Chris Hani - Chris Hani Development Agency (CHDA)				
Joe Gqabi - Joe Gqabi Economic Development Agency (JoeGEDA)				

Alfred Nzo - Alfred Nzo Development Agency (ANDA)				
Development finance institutions and IDZs (IDC, COEGA IDZ, ELIDZ, DBSA)	5	25	20	80
Banks: (Std Bank, Nedbank, ABSA, Capitec, and FNB)	5	20	5	25
Private Sector, through business chambers: Border Kei and NMBM Chambers and business formations in all 6 district municipalities	9	40	32	80
Total	53	200	152	76

Source: Constructed by the author

4.2 ANALYSIS OF RESPONSES FROM ADMINISTERED QUESTIONNAIRES

The analysis follows the format of the questionnaire; it starts with section A that dealt with demographic details.

Demographic details

1. EC residents/workers and Respondents' Gender

The questionnaire was specifically intended for people who reside or work in the EC Province. All 152 respondents resided and worked in the province, with 91 females and 61 males (59.9% and 40.1%, respectively).

Table 4-2: Respondents' Gender

Gender	Frequency	Percent
Male	61	40.1
Female	91	59.9
Total	152	100.0

Table 4-3: Respondents' Gender frequency and percentage

	Frequency	Percent
Valid <18	2	1.3
19-25	13	8.6
26-33	48	31.6
34-41	43	28.3
>41	46	30.3
Total	152	100.0

Respondents' race

A hundred and forty-four (94.7%) of the respondents are Black, followed by four Coloureds (2.6%); and two Whites and Indians (1.3%), respectively.

Table 4-4: Respondents' race

Race	Frequency	Percent
Valid Black	144	94.7
White	2	1.3
Coloured	4	2.6
Indian	2	1.3
Total	152	100.0

Figure 4-1 below provides a composite picture of the respondents' demographic details.

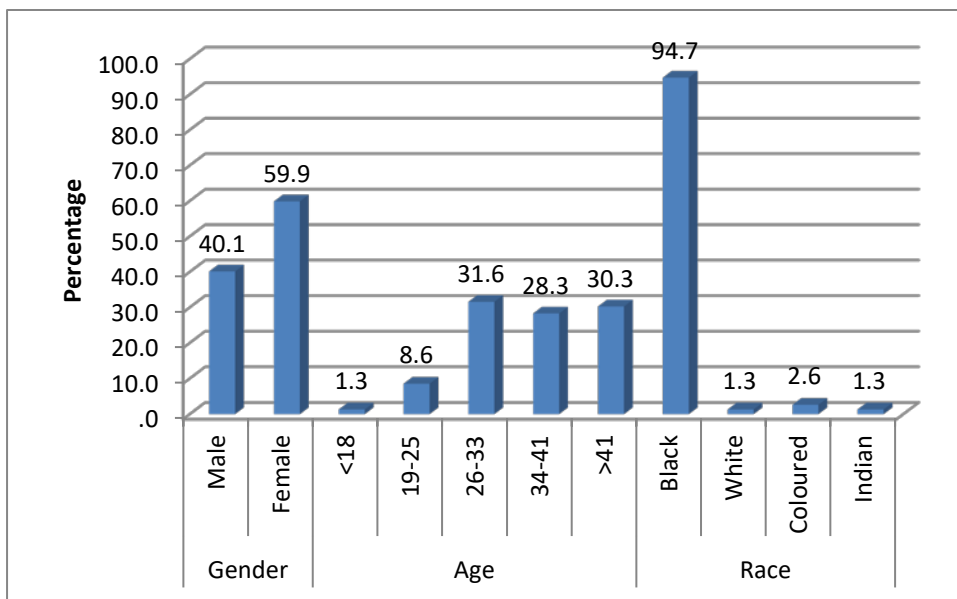


Figure 4-1: Respondents' Demographic Details

Factors that would entice the respondents to invest in the EC

Section B of the questionnaire was divided into five sections in line with the research questions and objectives. The first section focused on the factors that would entice the respondents to invest in the EC. It consisted of 10 Likert scale questions. Table 4-5 captures the questions; this is followed by the findings on each question.

Table 4-5: Factors that attract investment in the EC

FACTOR	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.1 Political willingness to make decisions on investment					
1.2 Investment by government in the economic infrastructure					
1.3 Improved governance in the province					
1.4 Support from government					
1.5 Investment incentives					
1.6 Policy certainty					
1.7 Higher savings rate across the country					
1.8 Higher return on investment					
1.9 Availability of skilled labour					
1.10 Investment by government in Health and Education					

Political willingness to make decisions on investment

All the respondents answered this question. Table 4-6 below shows that, 91 (59.9%) strongly agreed that political willingness to make decisions on investment would entice them to invest in the EC, while 47 (30.9%) agreed and eight (5.3%) remained neutral. Only four (2.6%) respondents disagreed and two (1.3%) strongly disagreed with this statement.

Table 4-6: Political willingness to make decisions on investment

	Frequency	Percent
Valid Strongly disagree	2	1.3
Disagree	4	2.6
Neutral	8	5.3
Agree	47	30.9
Strongly agree	91	59.9
Total	152	100.0

These results suggest that strong political leadership would entice investors to invest in the province. Politics and the economy cannot be separated; positive political leadership always impacts on economic dynamics, be it in the form of economic growth or strengthening a country's currency (Gordham, 2016). Strong political willingness invokes investor confidence in the private sector and attracts foreign investment.

Government investment in economic infrastructure

Table 4-7 illustrates that, 106 (69.7%) of the respondents strongly agreed with this statement, while 40 (26.3%) agreed and five (3.3%) remained neutral. Only one (0.7%) respondent disagreed that government investment in economic infrastructure would attract investors and none strongly disagreed.

Table 4-7: Government investment in economic infrastructure

	Frequency	Percent
Valid Disagree	1	.7
Neutral	5	3.3
Agree	40	26.3
Strongly agree	106	69.7
Total	152	100.0

Investment in economic infrastructure is a key factor in attracting investment; infrastructure development plays a pivotal role in driving job creation and economic growth (N. P. Commission, 2013; Pereira & Andraz, 2013). Indeed, the private sector is heavily dependent on the public sector's ability to provide a favourable economic environment that promotes the investment attractiveness of the province (Coega, 2015).

Improved governance in the province

Table 4-8 shows, that a significant number of respondents (105, 69.1%) strongly agreed, and 43 (28.3%) agreed that improved governance in the province would

attract investment, while three remained neutral and one disagreed (2.0% and 0.7%, respectively). None strongly disagreed.

Table 4-8: Improved governance in the province

	Frequency	Percent
Valid Disagree	1	.7
Neutral	3	2.0
Agree	43	28.3
Strongly agree	105	69.1
Total	152	100.0

As noted previously, the EC suffers from serious governance problems in municipalities, government departments and SOEs (Makwetu, 2016). Good governance is a key determinant of investment.

Support from government

Table 4-9 shows that, 78 of the respondents strongly agreed that support from government would entice investors to invest in the EC, while 66 agreed, and eight remained neutral, representing 51.3%, 43.4% and 5.3% of the sample, respectively. None of the respondents disagreed or strongly disagreed with this statement.

Table 4-9: Support from government

	Frequency	Percent
Valid Neutral	8	5.3
Agree	66	43.4
Strongly agree	78	51.3
Total	152	100.0

This raises the question of how the national fiscal system could be reconfigured to address deficits in socio-economic development in the EC's metros, district and local municipalities and rural areas (Mike, 2013). Government support could include increasing the province's budget allocation and investing in skills training as well as ensuring implementation of policies.

Investment incentives

A hundred (65.8%) of the 152 respondents strongly agreed that investment incentives would entice them to invest in the EC, with 45 (29.6%) agreeing and six (3.9%) remaining neutral. Only one respondent (0.7%) disagreed with this statement. These results are illustrated in table 4-10.

Table 4-10: Investment incentives

	Frequency	Percent
Valid Disagree	1	.7
Neutral	6	3.9
Agree	45	29.6
Strongly agree	100	65.8
Total	152	100.0

Investment incentives such as tax relief or subsidies by the host country are a key ingredient in attracting investment (Mata & Guimarães, 2013). The district municipalities in the province indicated that budgetary constraints prevent them from offering such incentives. On the other hand, the SEZ/ IDZs and metros are able to do so. In order to attract investment in rural municipalities, the EC should establish a structured framework for incentives. Furthermore, economists are of the view that the government should adopt a counter-cyclical fiscal policy to avoid excessive current account deficits during periods of more rapid economic growth, rising investment and a falling savings rate (Chipote & Tsegaye, 2014).

Policy certainty

The majority of the respondents agreed that policy certainty would entice them to invest in the province. Table 4-11 shows that 85 (55.9%) respondents strongly agreed, 49 (32.2%) agreed, 17 (11.2%) were neutral and only one respondent disagreed with this statement and none strongly disagreed.

Table 4-11: Policy certainty

	Frequency	Percent
Valid Disagree	1	.7
Neutral	17	11.2
Agree	49	32.2
Strongly agree	85	55.9
Total	152	100.0

These results clearly indicate that investors prefer stable policies and policy certainty. Policy uncertainty is generated by political risk factors that generally negatively affect investment decisions (Kishor & Singh, 2015). When there is a change in political leadership, investors' first concern is whether policies will change or remain the same.

Higher savings rate across the country

Table 4-12 below shows that, 65 (42.8%) of the respondents agreed that a higher savings rate across the country would entice them to invest in the EC, followed by 47 (30.9%) who strongly agreed, while 34 (22.4%) were neutral, five (3.3%) disagreed and only one (0.7%) strongly disagreed.

Table 4-12: Higher savings rate across the country

	Frequency	Percent
Valid Strongly disagree	1	.7
Disagree	5	3.3
Neutral	34	22.4
Agree	65	42.8
Strongly agree	47	30.9
Total	152	100.0

Domestic savings are very low in SA; it is estimated that the country needs to increase such savings from 16.3% to 28.3% to achieve the desired inclusive growth (Saville, 2015).

Higher return on Investment

Table 4.13 illustrates that, a significant number of respondents (106, 69.7%) strongly agreed that a higher return on investment would entice them to invest in the province, followed by 35 (23%) who agreed, and eight (5.3%) that remained neutral, while two disagreed and one strongly disagreed (1.3% and 0.7%, respectively).

Table 4-13: Higher return on investment

	Frequency	Percent
Valid Strongly disagree	1	.7
Disagree	2	1.3
Neutral	8	5.3
Agree	35	23.0
Strongly agree	106	69.7
Total	152	100.0

The potential for higher returns on investment in the short or long run determines the intention to invest. Both domestic and foreign investors seek a higher return on investment (Moosa, 2016).

Availability of skilled labour

Table 4.14 details the responses on the availability of skilled labour as a factor that would attract investment in the EC. Ninety-four (61.8%) of the respondents strongly agreed, 54 (35.5%) agreed, two (1.3%) were neutral and two (1.3%) respondents disagreed with this statement, while none strongly disagreed.

Table 4-14: Availability of skilled labour

	Frequency	Percent
Valid Disagree	2	1.3
Neutral	2	1.3
Agree	54	35.5
Strongly agree	94	61.8
Total	152	100.0

More rapid industrialisation in the province is mainly dependant on skills development; failure to develop skills will mean that the EC is unable to achieve its economic growth targets. The current labour force does not possess the skills required to meet industry's demands. Education reforms are required to strengthen performance in subjects such as mathematics and science. Urgent measures are required to address youth unemployment (Coega, 2015).

Investment by government in Health and Education

Table 4-15 shows that, 89 (58.6%) of the 152 respondents strongly agreed that government investment in health and education would entice them to invest in the EC, while 51 (33.6%) agreed, 11 (7.2%) remained neutral and one (0.7%) strongly disagreed. No respondents disagreed with this statement.

Table 4-15: Government investment in Health and Education

	Frequency	Percent
Valid Strongly disagree	1	.7
Neutral	11	7.2
Agree	51	33.6
Strongly agree	89	58.6
Total	152	100.0

While a significant proportion of the EC’s budget (74%) is allocated to health and education what is not clear is the return on this investment (Somyo, 2016).

One sample t-tests test whether a mean score is significantly different from a scalar value. All the variables tend to have small standard deviation values, showing that the data is clustered around the mean, that is, there is not much spread among the respondents. A rating scale was provided for each question; the examples in tables 4-16 and 4-17 below show how the coding was done.

The mean for the questions is above four; this confirms that these factors would entice investors to invest in the EC, as explained in table 4-18 and further summarized in figure 4-2.

Table 4-16: Rating scale

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Table 4-17: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
1.1 Political willingness to make decisions on investment	152	4.45	.821	.067
1.2 Investment by government in the economic infrastructure	152	4.65	.578	.047
1.3 Improved governance in the province	152	4.66	.553	.045
1.4 Support from government	152	4.46	.597	.048
1.5 Investment incentives	152	4.61	.600	.049
1.6 Policy certainty	152	4.43	.716	.058
1.7 Higher savings rate across the country	152	4.00	.854	.069
1.8 Higher return on investment	152	4.60	.712	.058
1.9 Availability of skilled labour	152	4.58	.593	.048
1.10 Investment by government in Health and Education	152	4.49	.690	.056

There is significant agreement that these factors would entice investment in the province:

Political willingness to make decisions on investment ($t(151) = 21.845, p < .0005$);
Investment by government in the economic infrastructure ($t(151) = 35.197, p < .0005$);

Improved governance in the province ($t(151)=36.948, p<.0005$); Investment incentives ($t(151) = 32.998, p<.0005$); Policy certainty ($t(151) = 24.707, p<.0005$); Higher savings rate across the country, ($t(151) = 14.445, p<.0005$); Higher return on investment ($t(151) = 27.688, p<.0005$); Availability of skilled labour ($t(151) = 32.842, p<.0005$); Investment by government in health and education ($t(151) = 26.665$).

Table 4-18: One-Sample Test2

	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Political willingness to make decisions on investment	21.845	151	.000	1.454	1.32	1.59
1.2 Investment by government in the economic infrastructure	35.197	151	.000	1.651	1.56	1.74
1.3 improved governance in the province	36.948	151	.000	1.658	1.57	1.75
1.4 Support from government	30.177	151	.000	1.461	1.36	1.56
1.5 Investment incentives	32.998	151	.000	1.605	1.51	1.70
1.6 Policy certainty	24.707	151	.000	1.434	1.32	1.55
1.7 Higher savings rate across the country	14.445	151	.000	1.000	.86	1.14
1.8 Higher return on investment	27.688	151	.000	1.599	1.48	1.71
1.9 Availability of skilled labour	32.842	151	.000	1.579	1.48	1.67
1.10 Investment by government in Health and Education	26.665	151	.000	1.493	1.38	1.60

² In the table above all p values (Sig.) are <.05. (NOTE: in SPSS a p value given as .000 is reported as p<.0005. a value of e.g. .016 is reported as p=.016). For sig p values, the mean value in the top table agreement (if mean >3) and disagreement (if mean <3).

Figure 4-2 below shows the average agreement scores for comparative purposes.

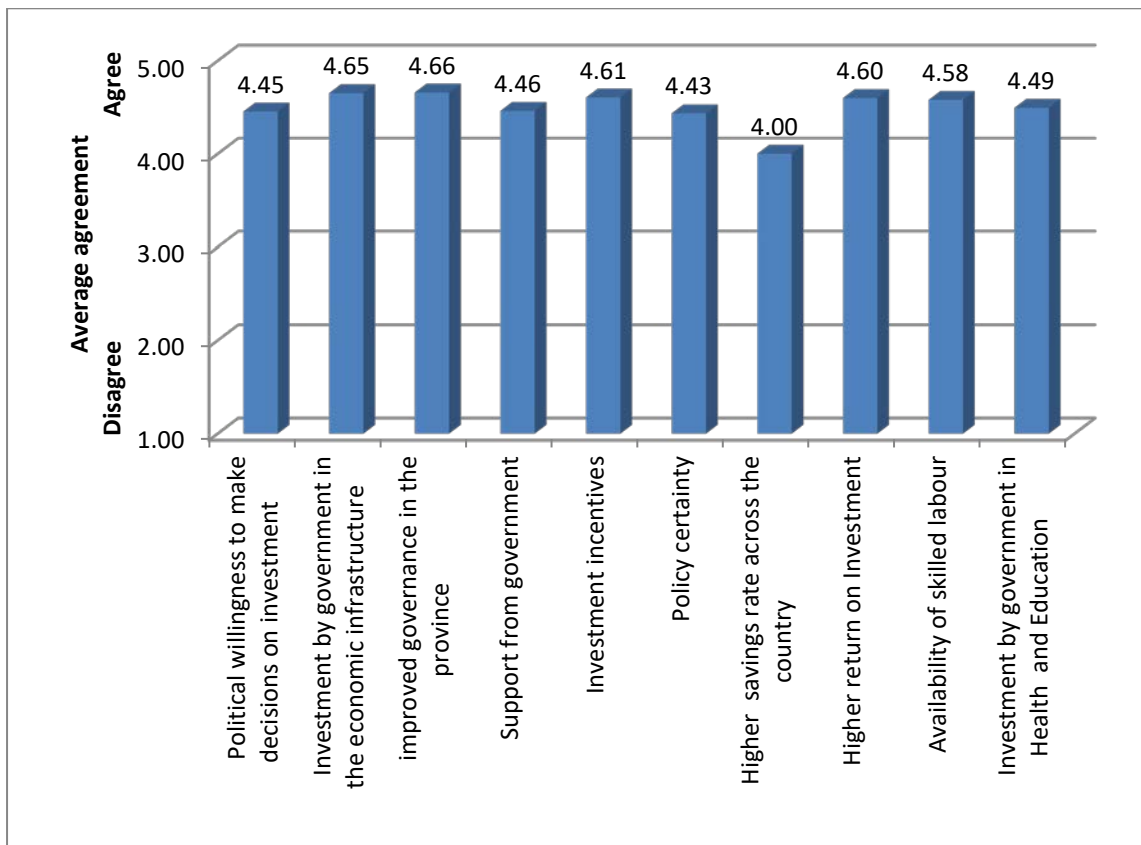


Figure 4-2: Agreement scores

Factors that contribute to low investment trends in the province

The second part of section B in the questionnaire required the respondents to indicate their agreement or disagreement with the listed factors that contribute to low investment trends in the EC. It comprised nine Likert scale questions. Table 4-19 captures all the questions, followed by the presentation of the findings for each question.

Table 4-19: Low investment trends in the province

FACTOR	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
2.1 Lack of sufficient political will					
2.2 Lack of skilled labour					
2.3 Lack of sufficient funding					
2.4 Lack of infrastructure					
2.5 Lack of forward planning and					
2.6 Lack of monitoring and					
2.7 Lack of efficiency in spending					
2.8 Low per capita income levels					
2.9 Challenges related to land					

Lack of sufficient political will

A significant number of respondents (83, 54.6%) strongly agreed that a lack of political will contributes to low investment trends in the province while 59 (38.8%) agreed with this statement.

Only six respondents disagreed with the statement, three remained neutral, and one strongly disagreed, representing 3.9%, 2.0% and 0.7%%, respectively (see table 4-20).

Table 4-20: Lack of sufficient political will

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	6	3.9	3.9	4.6
Neutral	3	2.0	2.0	6.6
Agree	59	38.8	38.8	45.4
Strongly agree	83	54.6	54.6	100.0
Total	152	100.0	100.0	

This suggests a resounding lack of confidence in the political leadership of the province that has led to low levels of investment.

Lack of skilled labour

This question asked respondents whether or not they felt that a lack of skilled labour was a contributor to low investments trends in the province. Sixty-four (42.1%) respondents agreed and 54 (35.5%) strongly agreed, while 18 (11.8%) remained neutral. Fourteen (9.2%) respondents disagreed that a lack of skilled labour deterred investment in the EC and two disagreed (1.3%); see table 4-21 below.

Table 4-21: Lack of skilled labour

	Frequency	Percent
Valid Strongly disagree	2	1.3
Disagree	14	9.2
Neutral	18	11.8
Agree	64	42.1
Strongly agree	54	35.5
Total	152	100.0

The availability of skilled labour is a key determinant of investment. Studies in SA continue to show that the country suffers a severe shortage of skills and a skills mismatch due, among other things, to a poor education system (Coega, 2015).

Lack of sufficient funding

The third question sought to determine whether the respondents felt that a lack of sufficient funding was a factor in low investment trends in the EC Province. Table 4-22 shows that, 67 respondents (44.1%) agreed with this statement, while 63 (41.4%) strongly agreed and 13 (8.6%) remained neutral. Six disagreed and just three strongly disagreed (3.9% and 2.0%), respectively.

Table 4-22: Lack of sufficient funding

	Frequency	Percent
Valid Strongly disagree	3	2.0
Disagree	6	3.9
Neutral	13	8.6
Agree	67	44.1
Strongly agree	63	41.4
Total	152	100.0

Thus, the majority of the respondents agreed that a lack of sufficient funding contributes to low investment trends in the EC. As noted previously, the largest slice of the provincial budget goes to salaries, leaving an inadequate budget for investment (Provincial Treasury, 2014; Somyo, 2016).

Lack of infrastructure

Table 4-23 illustrates that, 78 (51.3%) respondents strongly agreed and 65 (42.8%) agreed that a lack of infrastructure contributes to low investment trends in the province. Five respondents were neutral, while three strongly disagreed and one disagreed (3.3%, 2.0% and 0.7%), respectively.

Table 4-23: Lack of infrastructure

	Frequency	Percent
Valid Strongly disagree	3	2.0
Disagree	1	.7
Neutral	5	3.3
Agree	65	42.8
Strongly agree	78	51.3
Total	152	100.0

The EC has a serious infrastructure problem due to historical backlogs, current needs in relation to business expansion and new villages or communities in need of infrastructure. This is the main cause of service delivery protests across SA. The province needs to improve infrastructure delivery if it intends to turn its fortunes around (Somyo, 2016).

Lack of forward planning and implementation

Table 4-24 illustrates that, 81 (53.3%) respondents strongly agreed and 68 (44.7%) agreed that a lack of forward planning and implementation resulted in low investment trends. One respondent (0.7%) remained neutral, disagreed, and strongly disagreed, respectively.

Table 4-24: Lack of forward planning and implementation

	Frequency	Percent
Valid Strongly disagree	1	.7
Disagree	1	.7
Neutral	1	.7
Agree	68	44.7
Strongly agree	81	53.3
Total	152	100.0

Government and municipalities follow a planning cycle but implementation remains a problem. There is an urgent need to improve planning and monitoring of implementation, be it continuation of the outcomes system, and to include priorities that cut across government spheres and departments (SouthAfrica, 2015).

Lack of monitoring and evaluation by government

Table 4-25 shows that, 98 respondents (64.5%) strongly agreed and 46 (30.3%) agreed that a lack of monitoring and evaluation by government hampered investment in the EC. Five respondents remained neutral and three disagreed (3.3% and 2.0%) with none strongly disagreeing.

Table 4-25: Lack of monitoring and evaluation by government

	Frequency	Percent
Valid Disagree	3	2.0
Neutral	5	3.3
Agree	46	30.3
Strongly agree	98	64.5
Total	152	100.0

The government monitoring and evaluation system/s confronts serious challenges at national, provincial and local government level. A lack of capital investment is a clear indication of the lack of monitoring and evaluation of departments, agencies, municipalities and individual performance. Government itself concurs that without good plans, implementation will not happen; there is thus an urgent need to understand how national planning could support provincial and local government. Effective national planning should include meaningful participation of all sectors, which is lacking in the EC.

Lack of efficiency in spending investment funding and grants

The respondents were asked to indicate if they felt that a lack of efficiency in spending investment funding and grants contributes to low investment trends in the EC. Table 4-26 shows that 91 (59.9%) respondents strongly agreed with this statement, while 50 (32.9%) agreed.

Table 4-26: Lack of efficiency in spending investment funding and grants

	Frequency	Percent
Valid Strongly disagree	1	.7
Disagree	1	.7
Neutral	9	5.9
Agree	50	32.9
Strongly agree	91	59.9
Total	152	100.0

It is evident from the low budget allocation for capital investment and grants transferred to departments and municipalities that they are not spent efficiently (AGSA, 2014; Makwetu, 2016).

Low per capita income levels across the province

Table 4-27 below highlights that, 49 respondents (32.2%) strongly agreed and 56 (36.8%) agreed that low per capita income levels across the province discourage investment in the EC. However, 32 (21.1%) respondents remained neutral, while 14 (9.2%) disagreed and only one (0.7%) strongly disagreed with this statement.

Table 4-27: Low per capita income levels across the province

	Frequency	Percent
Valid Strongly disagree	1	.7
Disagree	14	9.2
Neutral	32	21.1
Agree	56	36.8
Strongly agree	49	32.2
Total	152	100.0

Investors examine income levels in a prospective market before they decide to invest in a particular province or country.

Challenges related to land reform

The last question in this part of the section probed the effect of challenges relating to land reform on investment trends. Table 4-28 shows that 66 respondents (43.4%) agreed and 60 (39.5%) strongly agreed that challenges related to land reform have contributed to low investment trends in the province. Fifteen respondents (9.9%) were neutral on this issue, while nine (5.9%) disagreed and two (1.3%) strongly disagreed with the statement.

Table 4-28: Challenges related to land reform

	Frequency	Percent
Valid Strongly disagree	2	1.3
Disagree	9	5.9
Neutral	15	9.9
Agree	66	43.4
Strongly agree	60	39.5
Total	152	100.0

Land reform has proceeded at a very slow pace in SA. Furthermore, land reform initiatives and transfers have failed to address unemployment and increase export revenue as well as agricultural development in the EC (Sender, 2016). Land reform is urgently required to resolve the tension between traditional and constitutional issues. Addressing the issue of land tenure would encourage private capital inflow to rural areas in the province (Mike, 2013).

Table 4-29 below presents the one-sample statistics, while table 4-30 shows the one-sample test and figure 4-3 provides a summary. The mean for question 2's sub-questions has a minimum of 3.91 and a maximum of 4.57. This shows a high level of agreement, with the level of significance above four; this confirms that these factors contribute to low investment trends in the province.

Table 4-29: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
2.1 Lack of sufficient political will	152	4.43	.777	.063
2.2 Lack of skilled labour	152	4.01	.983	.080
2.3 Lack of sufficient funding	152	4.19	.897	.073
2.4 Lack of infrastructure	152	4.41	.766	.062
2.5 Lack of forward planning and implementation	152	4.49	.620	.050
2.6 Lack of monitoring and evaluation by government	152	4.57	.657	.053
2.7 Lack of efficiency in spending investment funding and grants	152	4.51	.700	.057
2.8 Low per capita income levels across the province	152	3.91	.979	.079
2.9 Challenges related to land reform	152	4.14	.914	.074

Table 4-30: One-Sample Test

	Test Value = 3						
						95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper	
2.1 Lack of sufficient political will	22.647	151	.000	1.428	1.30	1.55	
2.2 Lack of skilled labour	12.704	151	.000	1.013	.86	1.17	
2.3 Lack of sufficient funding	16.369	151	.000	1.191	1.05	1.33	
2.4 Lack of infrastructure	22.646	151	.000	1.408	1.29	1.53	
2.5 Lack of forward planning and implementation	29.710	151	.000	1.493	1.39	1.59	
2.6 Lack of monitoring and evaluation by government	29.500	151	.000	1.572	1.47	1.68	
2.7 Lack of efficiency in spending investment funding and grants	26.534	151	.000	1.507	1.39	1.62	
2.8 Low per capita income levels across the province	11.434	151	.000	.908	.75	1.06	

There was significant agreement that these factors contribute to low investment in the EC. The average for the question 2 sub-questions was a minimum of 3.91 and a maximum of 4.57 as shown in figure 4-3 below.

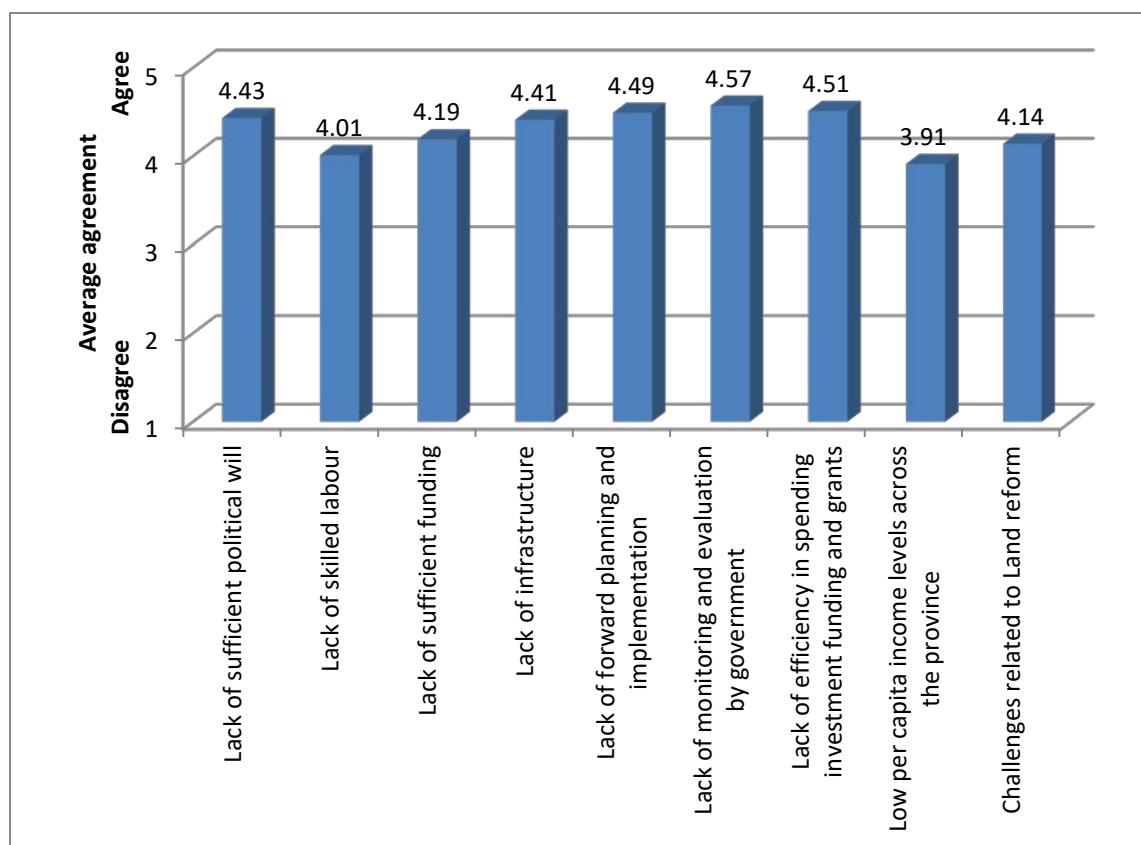


Figure 4-3: Scores on Land Reform Challenges

Strategies that would attract more investment in the province

The third part of section B in the questionnaire required the respondents to indicate their agreement that certain strategies would attract more investment in the EC. Table 4-31 details the 13 statements in a Likert scale format.

Table 4-31: Strategies to attract increased investment

ACTION	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
3.1 Increase in fiscal budget allocation to province					
3.2 Strong implementation of plans and policies by government					
3.3 Strengthening of the political will					
3.4 Acceleration of the formation of public-private partnerships					
3.5 Increase in private sector investment in infrastructure					
3.6 Increase in public sector investment in infrastructure					
3.7 Attraction of foreign direct investment					
3.8 Increase in the skills base of the province					
3.9 Involvement of the chiefs and the community in attracting investments					
3.10 Establishment of a provincial investment agency					
3.11 Increase in the role of organised labour and civil society in attracting investment					
3.12 Efficient investment funding by government					
3.13 Investment by the province in its natural resources (land, tourism, beaches, culture heritage)					

Increase in fiscal budget allocation to province

Table 4-32 indicates that, 61 (40.1%) respondents strongly agreed that, an increase in the fiscal budget allocation to the province would help attract investment, while 53 (34.9%) agreed and 27 (17.8%) remained neutral. However, eight respondents disagreed and three strongly disagreed (5.3% and 2.0%, respectively) with this statement.

Table 4-32: Increase in fiscal budget allocation to province

	Frequency	Percent
Valid Strongly disagree	3	2.0
Disagree	8	5.3
Neutral	27	17.8
Agree	53	34.9
Strongly agree	61	40.1
Total	152	100.0

Strong implementation of plans and policies by government

More than two-thirds of the respondents, (119, 78.3%) strongly agreed and 30 (19.7%) agreed that strong implementation of plans and policies by government would attract investment in the EC. Two respondents were neutral on this issue while only one strongly disagreed (see table 4-33).

Table 4-33: Strong implementation of plans and policies by government

	Frequency	Percent
Valid Strongly disagree	1	.7
Neutral	2	1.3
Agree	30	19.7
Strongly agree	119	78.3
Total	152	100.0

Thus, the respondents seem to suggest that government implementation of plans and policies is very poor and needs strengthening in order to attract investment in the province. The EC's economic system should be geared towards establishing structures that generate a surplus, increase investment levels, become more innovative, and are more adaptable to changing conditions.

Strengthening political will

The respondents were asked whether stronger political would attract investment in the province. Table 4-34 below shows that, 109 (71.7%) strongly agreed, and 35 (23.0%) agreed with this statement. Six respondents (3.9%) remained neutral and only two (1.3%) disagreed with the statement.

Table 4-34: Strengthening political will

	Frequency	Percent
Valid Disagree	2	1.3
Neutral	6	3.9
Agree	35	23.0
Strongly agree	109	71.7
Total	152	100.0

Improved political leadership is required to boost political will.

Accelerating the formation of public-private partnerships

Eighty-six of the 152 respondents (56.6%) strongly agreed that accelerating the formation of public-private partnerships would attract more investment to the EC and 54 (35.5%) agreed. Six (3.9%) respondents disagreed with this statement, four (2.6%) remained neutral, and two (1.3%) respondents strongly disagreed. Table 4-35 shows the results.

Table 4-35: Acceleration of the formation of public -private partnerships

	Frequency	Percent
Valid Strongly disagree	2	1.3
Disagree	6	3.9
Neutral	4	2.6
Agree	54	35.5
Strongly agree	86	56.6
Total	152	100.0

Public-private partnerships capitalise on the resources and strengths of the private and public sectors in the development of the community and infrastructure for improved development of the country.

Increase in private sector investment in infrastructure

Table 4-36 illustrates that, 94 respondents (61.8%) strongly agreed and 44 (28.9%) agreed that increased private sector investment in infrastructure would attract more investment to the EC. Overall, 90.7% of the respondents agreed with this statement, with six (3.9%) remaining neutral and strongly disagreeing, respectively, and two (1.3%) that disagreed.

Table 4-36: Increase in private sector investment in infrastructure

	Frequency	Percent
Valid Strongly disagree	6	3.9
Disagree	2	1.3
Neutral	6	3.9
Agree	44	28.9
Strongly agree	94	61.8
Total	152	100.0

The private sector is more efficient in handling resources and can thus play a positive role in delivering infrastructure. This seems to be a neglected priority in the EC.

Increase in public sector investment in infrastructure

Furthermore, the majority of the respondents strongly agreed (107, 70.4%) and agreed (36, 23.7%) that increased public sector investment in infrastructure would attract more investment to the province. Seven (4.6%) respondents remained neutral on this issue and two (1.3%) disagreed (see table 4-37).

Table 4-37: Increase in public sector investment in infrastructure

	Frequency	Percent
Valid Disagree	2	1.3
Neutral	7	4.6
Agree	36	23.7
Strongly agree	107	70.4
Total	152	100.0

It is thus clear that the respondents are pinning their hopes on government to develop infrastructure.

Attracting foreign direct investment

Table 4-38 shows that, 105 respondents (69.1%) strongly agreed and 38 (25.0%) agreed that attracting FDI would increase investment in the EC. Six respondents (3.9%) were neutral in this issue and two and one (1.3 and 0.7%) disagreed and strongly disagreed, respectively.

Table 4-38: Attracting foreign direct investment

	Frequency	Percent
Valid Strongly disagree	1	.7
Disagree	2	1.3
Neutral	6	3.9
Agree	38	25.0
Strongly agree	105	69.1
Total	152	100.0

The IDZs in the province have both focused their efforts on attracting FDI to the zones.

Improving the skills base of the province

Skilled labour contributes to the development of a community and country. Table 4-39 illustrates that, 99 of the 152 respondents (65.1%) strongly agreed and 50 (32.9%) agreed that improving the EC's skills base would attract investment in the province. Only three (2%) respondents remained neutral and none disagreed or strongly disagreed with this statement.

Table 4-39: Improving the skills base of the province

	Frequency	Percent
Valid Neutral	3	2.0
Agree	50	32.9
Strongly agree	99	65.1
Total	152	100.0

Improving skills levels enhances productivity and thus attracts investment and promotes economic growth. Previous initiatives to enhance skills have not been successful; the skills required by industry remain in short supply, Sector Education and Training Authority (SETA) have not delivered and the education and training system is not producing sufficiently skilled graduates (Lewis, 2016).

Involvement of chiefs and the community in attracting investment

The EC is regarded as a rural province, and more than two-thirds of its population resides in rural areas or villages under the jurisdiction of traditional authorities (chiefs). The respondents were thus asked if involving chiefs and the community would assist in attracting investment in the province. Table 4-40 shows that 76 respondents (50.0%) strongly agreed and 60 (39.5%) agreed with this statement. A further 11 (7.2%) remained neutral and four (2.6%) and one (0.7%) disagreed and strongly disagreed, respectively.

Table 4-40: Involvement of chiefs and the community in attracting investment

	Frequency	Percent
Valid Strongly disagree	1	.7
Disagree	4	2.6
Neutral	11	7.2
Agree	60	39.5
Strongly agree	76	50.0
Total	152	100.0

Attracting investment to rural areas, be it private, public or FDI, requires the buy-in of traditional leaders and community members. This remains a missing link in the development of the province.

Establishment of a provincial investment agency

All three leading provincial economies in SA (Gauteng, KwaZulu-Natal and the Western Cape) have dedicated agencies that promote investment locally and abroad. The respondents were asked if they believed that the EC should follow suit. Table 4-41 shows that, 78 respondents (51.3%) strongly agreed with this statement, 54 (35.5%) agreed, 15 (9.9%) were neutral, four (2.6%) disagreed and one (0.7%) strongly disagreed.

Table 4-41: Establishment of a provincial investment agency

	Frequency	Percent
Valid Strongly disagree	1	.7
Disagree	4	2.6
Neutral	15	9.9
Agree	54	35.5
Strongly agree	78	51.3
Total	152	100.0

However, the diminishing role of agencies in the EC, the ECDC's failure to promote investment and SOEs' poor performance raise doubts regarding the viability of such a proposal.

Increased role of organised labour and civil society in attracting investment

The role of organised labour in SA is not perceived very positively in many circles; indeed, some regard it as an obstacle to attracting investment. The respondents were asked if they felt that increasing the role of organised labour and civil society in attracting investment would be a positive strategy. Table 4-42 highlights that 71 of the 152 respondents (46.7%) agreed and 62 (40.8%) strongly agreed that this was the case. Fifteen (9.9%) remained neutral and two (1.3%) disagreed and strongly disagreed, respectively.

Table 4-42: Increased role of organised labour and civil society in attracting investment

	Frequency	Percent
Valid Strongly disagree	2	1.3
Disagree	2	1.3
Neutral	15	9.9
Agree	71	46.7
Strongly agree	62	40.8
Total	152	100.0

The province needs to identify strong economic agents that are capable of organising themselves collectively to utilise all opportunities to attract investment to develop the province.

Efficient investment funding by government

While the government has prioritised investment in infrastructure, there are major inefficiencies in government investment funding. Table 4-43 shows that, 83 of the respondents (54.6%) strongly agreed and 66 (43.4%) agreed that there is a need for efficient investment funding by government. Only two respondents remained neutral and one disagreed with the statement.

Table 4-43: Efficient investment in funding by government

	Frequency	Percent
Valid Disagree	1	.7
Neutral	2	1.3
Agree	66	43.4
Strongly agree	83	54.6
Total	152	100.0

Efficient investment funding means that limited resources are better utilised for the greater benefit of the country. The level of fruitless, wasteful and irregular expenditure points to inefficient government funding across the country and the EC is no exception to this rule (Makwetu, 2016).

Investment by the province in its natural resources (land, tourism, beaches, cultural heritage)

The EC has many natural resources, arable land that is lying fallow, an 800 km coastline and a rich heritage. The respondents were asked to indicate if they felt that provincial investment in natural resources (land, tourism, beaches and cultural heritage) would be a pro-active strategy to increase investment in the province. Table 4-44 highlights that, 102 (67.1%) of the 152 respondents strongly agreed with this statement, while 46 (30.3%) agreed. Only two (1.3%) respondents were neutral and one (0.7%) disagreed and strongly disagreed, respectively.

Table 4-44: Investing in natural resources (land, tourism, beaches, cultural heritage)

	Frequency	Percent
Valid Strongly disagree	1	.7
Disagree	1	.7
Neutral	2	1.3
Agree	46	30.3
Strongly agree	102	67.1
Total	152	100.0

The EC is underutilising its rich natural resources. Arable land is lying fallow; the 800km coastline is not being fully utilised and the tourism sector is underperforming. Better utilisation of these resources would attract investment in the province.

The level of significance shows agreement that the following strategies would attract more investment in the EC. The mean for the questions is above four; this confirms that the strategies would attract investment. The mean is tabulated in table 4-45 and figure 4-4.

Table 4-45: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
3.1 Increase in fiscal budget allocation to province	152	4.06	.985	.080
3.2 Strong implementation of plans and policies by government	152	4.75	.543	.044
3.3 Strengthening of the political will	152	4.65	.623	.050
3.4 Acceleration of the formation of public-private partnerships	152	4.42	.834	.068
3.5 Increase in private sector investment in infrastructure	152	4.43	.940	.076
3.6 Increase in public sector Investment in infrastructure	152	4.63	.638	.052
3.7 Attraction of foreign direct investment	152	4.61	.692	.056
3.8 Increase in the skills base of the province	152	4.63	.523	.042
3.9 Involvement of the chiefs and the community in attracting investments	152	4.36	.784	.064
3.10 Establishment of a provincial investment agency	152	4.34	.815	.066
3.11 Increase in the role of organised labour and civil society in attracting investment	152	4.24	.789	.064
3.12 Efficient investment funding by government	152	4.52	.563	.046
3.13 Investment by the province in its natural resources (land, tourism, beaches, cultural heritage)	152	4.63	.618	.050

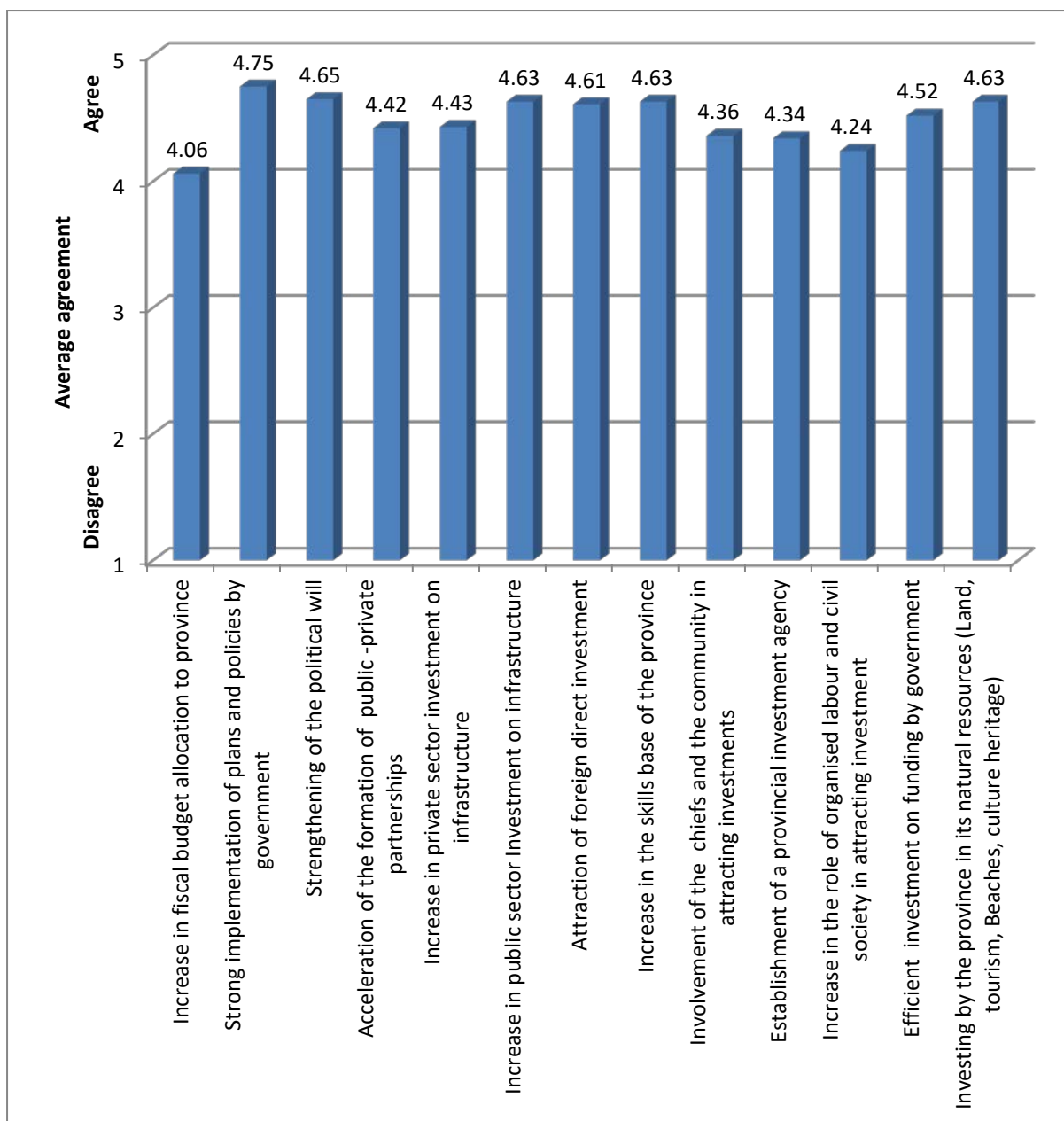


Figure 4-4: Summary

Will the province achieve the 30% National Development Plan investment target by 2030?

South Africa aims to achieve an investment target of 30% to GDP by 2030. The respondents were asked if they felt that the EC would reach this goal. A significant number (129, 84.9%) responded that they did not feel that this was possible and only 23 (15.1%) answered in the affirmative. Table 4-46 reflects the responses.

Table 4-46: Binomial Test

		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
4.1 Do you think the province will reach the 30% National Development Plan investment target by 2030?	Group 1	No	129	.85	.50	.000 ^a
	Group 2	Yes	23	.15		
	Total		152	1.00		

a. Based on Z Approximation

Local trends and prospects and the global economic climate reflect a gloomy outlook. The EC is largely rural and relies on government budget allocations which are predicted to decline due to outmigration and low own revenue generation (E. C. P. Commission, 2013; Somyo, 2015).

Is there an investment model that is currently used by the province?

A significant number of respondents (99, 65.1 %) did not know if the EC is currently utilising an investment model ($\chi^2 (2) = 94.829, p < 0.0005$). Fifty-two (34.2%) said that there is no investment model and just one (0.7%) respondent stated that the province has an investment model. The percentages and responses are presented in tables 4-47, 4-48 and 4-49.

Table 4-47: Investment model used by the province

	Frequency	Percent
Valid Yes	1	.7
No	52	34.2
Don't know	99	65.1
Total	152	100.0

Test = chi-square goodness of fit test to test whether any response option is selected significantly more often than others

Table 4-48: Chi-square

	Observed N	Expected N	Residual
Yes	1	50.7	-49.7
No	52	50.7	1.3
Don't know	99	50.7	48.3
Total	152		

Table 4-49: Test Statistics

	4.2 Is there an investment model that is currently used by the province?
Chi-Square	94.829 ^a
Df	2
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies of less than 5. The minimum expected cell frequency is 50.7.

The province has not developed an investment plan or strategy and only the metros and IDZs have domestic and FDI strategies (Somyo, 2015). The DEDEAT senior staff and ECDC, confirmed that the EC does not have an investment model, plan or strategy to attract investment. The East London and Coega IDZs have their own strategies to attract investors to these zones and these are not linked in any way to a provincial or district investment plan. As a result, a large proportion of FDI and domestic investment in the province is channelled to the metros and the province's GCFC reflects this. This brings us back to the question posed by (Mike, 2013) on how to attract more investment in the rural space, both in former Bantustan and non-Bantustan areas. A possible answer is the growth of the small coastal cities and rural municipalities over the next five to 15 years (Mike, 2013). However, there is a lack of reliable data to assess district and rural municipalities' ability to attract private investment and FDI. Some municipalities in the province were not able to supply the rand value of current investment and annual increases, let alone targets. This leads to another question: What attempts have been made thus far and what is the success rate?

In terms of broader economic development, the integrated Wild Coast Development Programme focuses on the eastern part of the province where the realities of poverty and unemployment are clearly visible. The programme is centred on agriculture

development and related industries. The Minister Somyo mentioned a plan for an agricultural hub in Mthatha in the former Transkei, based on the concept of a SEZ that is yet to be approved (Somyo, 2015). This would add value through agro-processing. However, there is no stipulated timeframe for the commencement of the hub, especially when one factors in government delays and procurement processes. Furthermore, local agricultural production is virtually non-existent and given the lack of a sound agricultural investment and business plan, it will take a long time for investment to flow into rural municipalities.

Are/were your investment decisions informed by the model?

Of the 152 respondents, only one respondent answered this question and his or her investment decisions were not informed by the model in any way (see table 4-50 below).

Table 4-50: Investment decisions informed by the model

		Frequency	Percent
Valid	No	1	.7
Missing	System	151	99.3
Total		152	100.0

The current model is not integrated with provincial/government objectives

Although this respondent stated that his/her decisions were informed by an investment model, he/she agreed that investment decisions are not integrated with provincial objectives (see table 4-51 below).

Table 4-51: Model not integrated with provincial/ government objectives

	Frequency	Percent
Valid Strongly agree	1	.7
Missing System	151	99.3
Total	152	100.0

There are no specific time frames aligned to the medium term strategic framework

The respondent strongly agreed that the investment model that s/he is aware of is not aligned with the medium strategic framework or any time frames (table 4-52).

Table 4-52: No specific time frames

	Frequency	Percent
Valid Strongly agree	1	.7
Missing System	151	99.3
Total	152	100.0

The current model is not monitored by government

The respondent also agreed that government departments do not monitor the current model in any way and that an investment model is required with expected percentages.

There are no specific investment targets

The respondent strongly agreed that what he/she understood as an investment model sets has no specific investment targets.

Do you think there is an investment gap in the province?

A significant number of respondents (150, 99%) agreed that there is an investment gap in the province ($p < 0.0005$), with only two (1%) disagreeing. Test = Binomial test – was used in a dichotomous variable to test for a sig proportion selecting either yes or no; table 4-53 below details the results.

Table 4-53: Investment gap in the province (Binomial Test)

	Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
4.3 Do you think there is an investment gap in the province?	Group 1 Yes	150	.99	.50	.000 ^a
	Group 2 No	2	.01		
	Total	152	1.00		

a. Based on Z Approximation

This seems to confirm the findings in the literature that there is an investment gap, whether one uses the NDP investment target of 30% to GDP or the proposed

provincial investment target in the 2014 Eastern Cape Socio-economic Review Outlook (SERO) of 20-25%. In the 2014 SERO, the EC DEDEAT indicates that a GFCF of 20%-25% of GDP would be a suitable target to maintain the required expansion of infrastructure and productive capacity. The current GFCF is 19% to the provincial GDP. The Eastern Cape Vision 2030 PDP does not state the required investment target, even though it notes that investment is very low.

Investment Gap using the NDP target (1)

Investment Gap = Target investment – Current Investment

Investment Gap = 30% - 19 %

= 11%

Investment Gap using the EC SERO target... (2)

Investment Gap = Target investment – Current Investment

Investment Gap = 25%-19%

= 6%

It is clear that the EC has an investment gap, with no clear target set by the DEDEAT, which is the main driver of economic development in the province. The starting point for the province is thus to set a target and discuss ways of closing the gap.

Are you aware of the provincial investment target?

A hundred and fifty-one respondents (99.3%) indicated that they were not aware of the provincial investment target with only one (0.7%) stating that they were aware of it (see table 4-54).

Table 4-54: Provincial investment target

	Frequency	Percent
Valid Yes	1	.7
No	151	99.3
Total	152	100.0

The provincial investment target is clearly not known. The capital infrastructure budget in the province has been hovering between 6% and 7% of the provincial budget. Whether or not this is the actual target is unclear; it could have been cascaded down from the national budget, which is also between 6% and 7%. This could explain why the NDP aims to increase public sector investment from 7%-10% and reach 30% investment to GDP. Over the years, the EC has underspent its capital expenditure and infrastructure grants. The low allocation is reduced by non-expenditure. Given this situation, can an increase in the public sector budget allocation for investment in the province be justified? The ECDC and the PDP do not set an investment target whether for the public or private sectors or FDI.

If YES to 4.4 of the questionnaire:

4.4.1 Does the provincial investment target influence your investment thinking on whether to increase the rate of your investment or not?

The respondent that stated that he/she was aware of the provincial investment target, choose to skip this question. However, given that 99% of the respondents were not aware of the provincial investment target, their investment decisions are unlikely to be influenced by this target.

What is your annual investment forecast from the present to 2030?

Sixty-six of the 152 respondents (43.4%) stated that their investment forecast is 5%-10%; 33 (21.7%) projected <5%, and 28 (18.4%) forecast > 15%. Finally, 25 respondents (16.4%) forecast annual investment of 11%-15% from the present to 2030. Table 4-55 below shows that, only 28 respondents predicted more than 15%.

Table 4-55: Investment forecast from the present to 2030

	Frequency	Percent
Valid <5%	33	21.7
5-10%	66	43.4
11=15%	25	16.4
>15%	28	18.4
Total	152	100.0

Figure 4-5 shows that, 43.4% of the respondents opted for 5%-10%, 21.7% for < 5%, 18% projected investment of > 15% and 16.4% forecast 11%-15%.

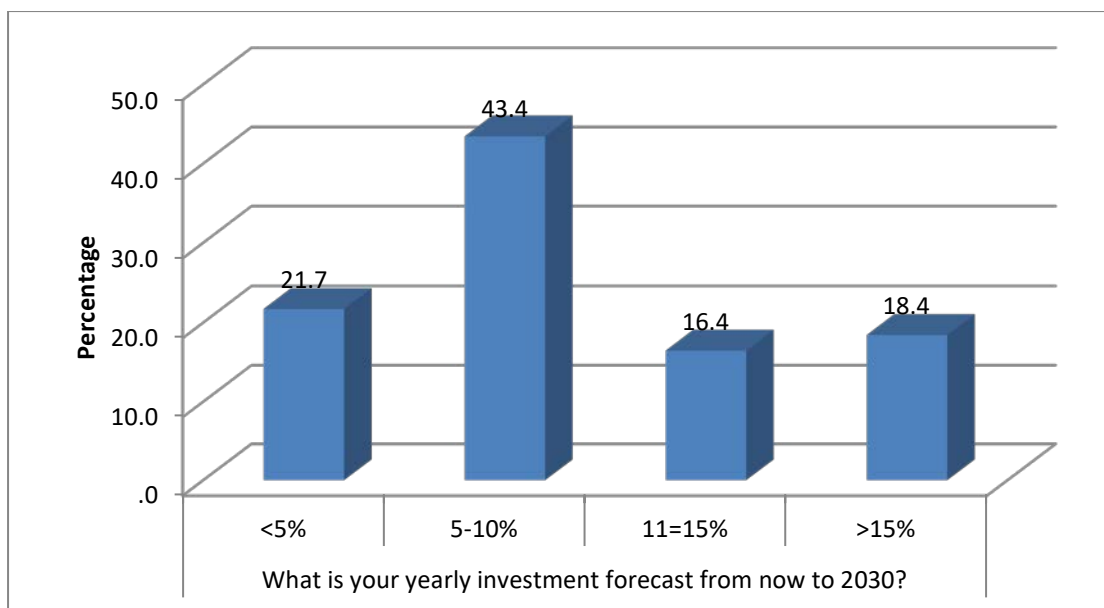


Figure 4-5: Investment forecast

Respondent 5 stated that, “The government pays 25-30% more than the private sector would pay to its suppliers and service providers. That already reduces the low investments budget allocation and the extent of the actual investment”.

4.6 Importance of investment in different areas in the province

The respondents were asked to rate the importance of the investment areas listed in table 4-56 below on a scale of 1 to 5 (1 = not at all important; 5 = Very important).

Table 4-56: Investment Areas

Investment in...	Importance
4.6.1 Agriculture, forestry, fishing and mining	
4.6.2 Manufacturing, transport, logistics, agro-processing	
4.6.3 Bulk & economic infrastructure	
4.6.4 Buildings & industrial hubs	
4.6.5 Health and education	

Agriculture, forestry, fishing and mining

In order of importance, 103 respondents (67.8%) rated agriculture, forestry, fishing and mining (primary sector) as very important at five; 34 (22.4%) rated it four; nine (5.9%) three; five (3.3%) two and one (0.7%) respondent rated it as not at all important (see table 4-57 below).

Table 4-57: Agriculture, forestry, fishing and mining

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	1	.7	.7	.7
2	5	3.3	3.3	3.9
3	9	5.9	5.9	9.9
4	34	22.4	22.4	32.2
5	103	67.8	67.8	100.0
Total	152	100.0	100.0	

This is a clear indication that the inhabitants of the EC still believe that the fortunes of the province lie with the agricultural sector. However, the province's agricultural sector has been in decline since 1994 due to the abolition of legislative protection of labour-intensive sectors, combined with an overvalued exchange rate, high interest rates and insufficient public sector investment to boost the sluggish domestic demand that contributed to the low levels of investment in agribusiness. Focused investment would enable the EC to set an agricultural investment revolution in motion that would boost the province's economic growth (Sender, 2016). If South African state institutions are unable to provide the research, tertiary education and training support required by

internationally competitive agribusiness, these businesses will be at a huge disadvantage compared to those in economies that receive adequate state support (Lewis, 2016).

Manufacturing, transport, logistics, agro-processing

Eighty-four of the 152 respondents (55.3%) regarded manufacturing, transport, logistics, agro-processing (secondary sector) as a very important areas for investment and rated it five; and 34 (22.4%) rated it four. Therefore, a significant number of respondents (118, 77.6%) regarded investment in these areas as important and very important. However, 19 respondents (12.5%) opted for a moderate rating of three (somewhat important), 12 (7.9%) rated it as less important (a rating of two) and three (2.0%) rated this area as not at all important. The results are presented in table 4-58 below.

Table 4-58: Manufacturing, transport, logistics, agro-processing

	Frequency	Percent
Valid 1	3	2.0
2	12	7.9
3	19	12.5
4	34	22.4
5	84	55.3
Total	152	100.0

Manufacturing, transport, logistics, and agro-processing's contribution to the EC's economy is quite significant, particularly in terms of employment and contribution to

GDP (Lewis, 2016). The manufacturing sector is likely to be boosted by expansion and diversification of the auto sector, the growth of labour intensive agribusiness, agro-processing and long run fracking prospects (Lewis, 2016).

Bulk and Economic infrastructure

Seventy-six respondents (50%) ranked investment in bulk and economic infrastructure as very important with a rating of five; 55 (36.2%) accorded it a rating of four and 17 (11.2%), three (2%) and one (0.7%) opted for a rating of three, two and one, respectively (see table 4-59 below).

Table 4-59: Bulk & Economic infrastructure

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	1	.7	.7	.7
2	3	2.0	2.0	2.6
3	17	11.2	11.2	13.8
4	55	36.2	36.2	50.0
5	76	50.0	50.0	100.0
Total	152	100.0	100.0	

Investment in infrastructure remains a challenge in the EC; hence, respondents agreed that there is a need for increased government investment in this area. Historical infrastructure backlogs are evident; municipalities are currently battling to eradicate backlogs identified in the year 2000. New villages also require infrastructure.

Buildings and Industrial hubs

Table 4-60 below shows that 67 of the respondents (44.1%) rated investment in buildings and industrial hubs as very important; 59 (38.8%) opted for important, and 18 (11.8) rated this area as moderately important.

The lowest ratings of two and one (less important and not important at all) were selected by six (3.9%) and two (1.3%) respondents, respectively.

Table 4-60: Buildings & Industrial hubs

	Frequency	Percent
Valid 1	2	1.3
2	6	3.9
3	18	11.8
4	59	38.8
5	67	44.1
Total	152	100.0

Overall, the respondents indicated the need for government to prioritise investment in buildings and industrial hubs. The closure of industrial hubs in Queenstown, Dimbaza, and Butterworth, to name but a few, was a step backwards (Lewis, 2016). Efforts to resuscitate these industrial areas need to be scaled-up if the EC is to prosper.

Health and Education

Table 4-61 illustrates that, 100 of the 152 respondents (65.8%) respondents rated investment in health and education as very important, with a rating of five and 34 (22.4%) opted for a rating of four.

A further 13 respondents (8.6%) felt that investment in health and education is of moderate importance, while three (2.0%) and two (1.3%) respondents felt that investment in this area is less important or not at all important, respectively.

Table 4-61: Health and Education

		Frequency	Percent
Valid	1	3	2.0
	2	2	1.3
	3	13	8.6
	4	34	22.4
	5	100	65.8
	Tot al	152	100.0

While the government allocates a significant portion of its budget to education, the EC's pass rate is low. The public health system also leaves much to be desired and many of the provincial hospitals are dilapidated. Furthermore, there are high levels of non-expenditure of allocated budgets. This suggests that the province needs to closely monitor investment in these areas.

Tables 4-62 and 4-63 show that the different investment areas have a mean value of > 4; it is thus concluded that they are all significantly important for the province to invest in.

Table 4-62: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
4.6.1 Agriculture, forestry, fishing and mining	152	4.53	.805	.065
4.6.2 Manufacturing, transport, logistics, agro-processing	152	4.21	1.065	.086
4.6.3 Bulk & Economic infrastructure	152	4.33	.804	.065
4.6.4 Buildings, & Industrial hubs	152	4.20	.894	.073
4.6.5 Health and Education	152	4.49	.861	.070

Table 4-63: One-Sample Test

	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
4.6.1 Agriculture, forestry, fishing and mining	23.479	151	.000	1.533	1.40	1.66
4.6.2 Manufacturing, transport, logistics, agro-processing	14.014	151	.000	1.211	1.04	1.38
4.6.3 Bulk & Economic infrastructure	20.384	151	.000	1.329	1.20	1.46
4.6.4 Buildings, & Industrial hubs	16.604	151	.000	1.204	1.06	1.35
4.6.5 Health and Education	21.287	151	.000	1.487	1.35	1.62

There is significant agreement that the government needs to invest in the following areas in the province:

Agriculture, forestry, fishing and mining ($t(151) = 23.479, p < .0005$); Manufacturing, transport, logistics, agro-processing ($t(151) = 14.014, p < .0005$); Bulk and economic infrastructure ($t(151) = 20.384, p < .0005$); Buildings and industrial hubs ($t(151) = 16.604, p < .0005$) and health and education ($t(151) = 21.287, p < .0005$).

The summary ratings of all investment areas below show which area is regarded as the most important. The respondents rated all these investment categories as important. The left axis in Figure 4-6 below shows the ratings. 1 = not at all important; 2 = less important, 3 = average importance, 4 = important and 5 = very important. Agriculture, forestry, fishing and mining was rated highly important at 4.53, followed by health and education at 4.49. The 3rd highest rating is for bulk and economic infrastructure at 4.33, followed by manufacturing, transport, logistics, and agro-processing at 4.21 and buildings and industrial hubs at 4.20.

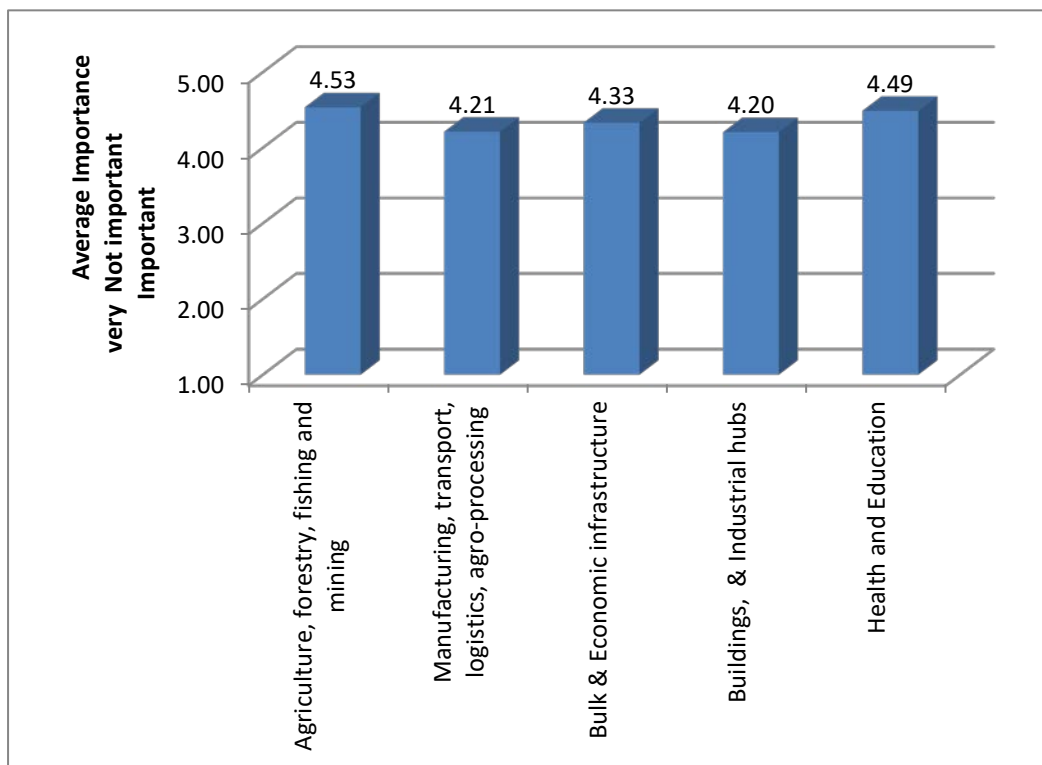


Figure 4-6: Summary of investment ratings

The summary of the responses strongly suggests that the province needs to invest in these areas as a starting point.

What percentage increase would close the investment gap in the Eastern Cape Province?

In this question, the respondents were asked to select a percentage that they thought would close the investment gap in the province. The first option was an increase in public sector investment, the second an increase in private sector investment and the third option was an increase in FDI. The percentages are below 5%, 5%-10%, 11%-15%, 16%-20% and above 20%. The results are presented in table 4-64 below.

Table 4-64: Approaches to close the investment gap in the province

Investment percentage increase per year	Below 5%	5-10%	11-15%	16-20%	Above 20%
4.7.1 An increase in public sector investment of...					
4.7.2 An increase in private sector investment of...					
4.7.3 An increase in foreign direct investment of...					

An increase in public sector investment

The respondents were requested to select an annual investment percentage increase by the public sector that they thought would close the investment gap in the province. Table 4-65 below shows that, 66 respondents (43.4% of the 152 respondents) indicated that if the government increased annual investment by more than 20% the investment gap would be closed. Forty-four respondents (28.9%) opted for 11% to 15%, 26 (17.1%) for 16% to 20% and 13 (8.6%) for 5% to 10%.

Only three (2%) respondents felt that an increase of less than 5% in public sector investment would close the investment gap in the EC.

Table 4-65: Increase in public sector investment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <5%	3	2.0	2.0	2.0
5-10%	13	8.6	8.6	10.5
11-15%	44	28.9	28.9	39.5
16-20%	26	17.1	17.1	56.6
>20%	66	43.4	43.4	100.0
Total	152	100.0	100.0	

The South African government intends to increase public sector investment from 7% to 10% by 2030. The evidence in the literature shows that it would not be able to increase investment by > 20% since 60%-65% of the budget goes to salaries, only about 7% is used for capital expenditure (capex) and the remainder is allocated to operations expenditure (Opex). An increase of 16%-20% seems high unless the wage bill falls to less than 60% of the budget. While 11%-15% seems reasonably attainable, if the government could double the current rate, this could take the country to a higher rate of investment. Finally, 5%-10% would not really make a great impact due to historical backlogs and the continuous need for investment and less than 5% would not even make a dent and could fuel service delivery protests.

An increase in private sector investment

Table 4-66 reflects that 71 of the respondents (46.7%) were of the view that an increase of >20% in private sector investment would enable the EC to close the investment gap, while 33 (21.7%) opted for an increase of 16%-20%; 25 (16.4%) for 11%-15%; 16 (10.5%) for 5%-10% and only seven (4.6%) for <5%.

Table 4-66: Increase in private sector investment

	Frequency	Percent
Valid <5%	7	4.6
5-10%	16	10.5
11-15%	25	16.4
16-20%	33	21.7
>20%	71	46.7
Total	152	100.0

The private sector in the EC is not large compared to other provinces. A 5% increase in investment on the part of this sector would thus not improve economic growth. In order to make an appreciable difference, the public and private sectors would need to at least double the current investment rate.

An increase in foreign direct investment

Table 4-67 presents the respondents on an increase in FDI. It shows that, 60 respondents (39.5%) felt that an increase of >20% per annum in FDI could close the EC's investment gap; 41 (27.0%) selected 16%-20%; 28 (18.4%) felt that 11%-15%

would suffice to close the gap; 16 (10.5%) opted for 5%-10% and only seven (4.6%) respondents were of the view that an increase of < 5% in FDI would close the investment gap.

Table 4-67: Increase in foreign direct investment

	Frequency	Percent
Valid <5%	7	4.6
5-10%	16	10.5
11-15%	28	18.4
16-20%	41	27.0
>20%	60	39.5
Total	152	100.0

The IDZs in the EC attract the largest proportion of FDI. Reliable data is not available on FDI's contribution to total GFCF.

Figure 4-7 summarises the responses. In terms of private sector investment, 46.7% of the respondents felt that investment should increase by > 20%, with 21.7% at 16%-20%, 16.4% at 11%-15%; 10.5% that indicated that a 5%-10% increase in investment per annum would close the investment gap and 4.6% that felt that an increase of <5% would be adequate.

Turning to public sector investment, 43.4% of the respondents felt this sector's investment should increase by > 20%; followed by 28.9% at 11%-15%; 17.1% at 16%-20%, and 8.6% and 2%, respectively at 5%-10% and < 5%.

Finally, 39.5% of the respondents were of the view that FDI should increase by >20% per annum if the province is to close the investment gap, while 27.0% selected 16%-20%; 18.4% 11%-15%; and 10.5% and 4.6% opted for an increase of 5%-10% and <5%, respectively.

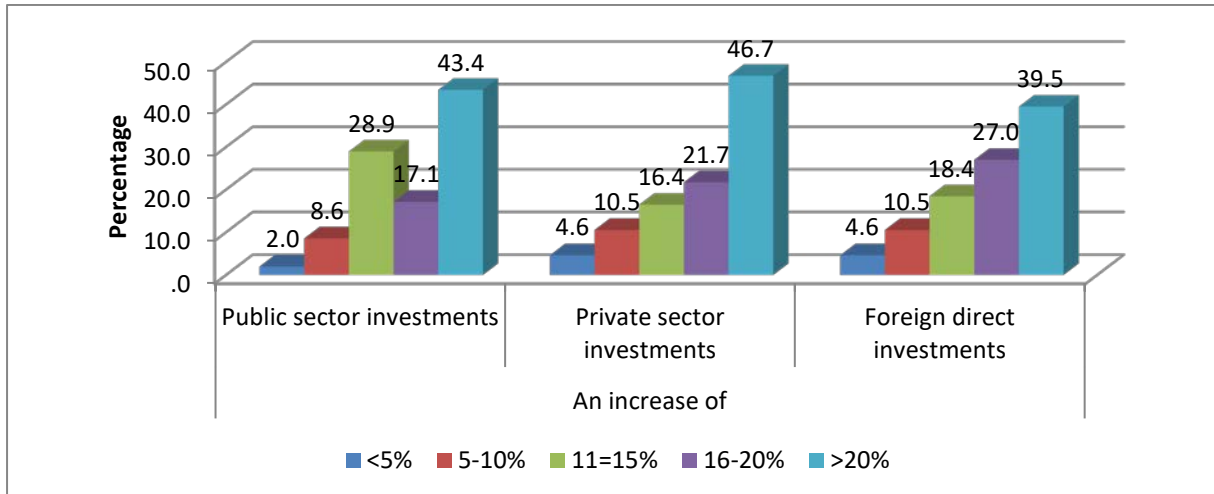


Figure 4-7: Percentage increase to close the investment gap

Test – chi-square go f... 83.066^a , 80.237^a and 57.59^a.a. 0 cells (.0%) have expected frequencies of less than five. The minimum expected cell frequency is 30.4. All mean values are > 4; we can conclude that these areas are all significantly important.

Table 4-68: Increase in public sector investment

	Observed N	Expected N	Residual
<5%	3	30.4	-27.4
5-10%	13	30.4	-17.4
11=15%	44	30.4	13.6
16-20%	26	30.4	-4.4
>20%	66	30.4	35.6
Total	152		

Table 4-69: Increase in private sector investment

	Observed N	Expected N	Residual
<5%	7	30.4	-23.4
5-10%	16	30.4	-14.4
11=15%	25	30.4	-5.4
16-20%	33	30.4	2.6
>20%	71	30.4	40.6
Total	152		

Table 4-70: Increase in foreign direct investment

	Observed N	Expected N	Residual
<5%	7	30.4	-23.4
5-10%	16	30.4	-14.4
11=15%	28	30.4	-2.4
16-20%	41	30.4	10.6
>20%	60	30.4	29.6
Total	152		

Table 4-71: Test Statistics

	4.7.1 An increase in public sector investment of...	4.7.2 An increase in private sector investment of...	4.7.3 An increase in foreign direct investment of...
Chi-Square	83.066 ^a	80.237 ^a	57.539 ^a
df	4	4	4
Asymp. Sig.	.000	.000	.000

Investment approaches that would close the investment gap in the EC province

The respondents were asked a similar question to question 4.7 in the questionnaire and without additional questions; they were requested to indicate their level of agreement or disagreement. The questions are detailed below in table 4-72.

Table 4-72: Investment approaches

Investment approaches	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
4.8.1 Increased public sector investment					
4.8.2 Increased private sector investment					
4.8.3 Increased foreign direct investment					
4.8.4 A dedicated provincial agency to deal with investment promotion in the province					
4.8.5 Involvement of traditional leaders in promoting investment in					

Increased public sector investment

Ninety-four of the respondents (61.8%) strongly agreed; 55 (36.2%) agreed; two (1.3%) remained neutral; and one (or 0.7%) respondent disagreed that increased public sector investment would close the investment gap in the EC. None of the respondents strongly disagreed with this statement. The responses are tabulated in table 4-73 below.

Table 4-73: Increased public sector investment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	1	.7	.7	.7
Neutral	2	1.3	1.3	2.0
Agree	55	36.2	36.2	38.2
Strongly agree	94	61.8	61.8	100.0
Total	152	100.0	100.0	

Increased private sector investment

The majority of the respondents (106, 69.7%) strongly agreed that an increase in private sector investment would close the investment gap in the province, while 37 (24.3%) agreed, seven chose to remain neutral and two disagreed.

Once again, none of the respondents strongly disagreed with this statement. Table 4-74 below presents these results.

Table 4-74: Increased private sector investment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	2	1.3	1.3	1.3
Neutral	7	4.6	4.6	5.9
Agree	37	24.3	24.3	30.3
Strongly agree	106	69.7	69.7	100.0
Total	152	100.0	100.0	

Increased foreign direct investment

Furthermore, 91 of the 152 respondents (59.9%) strongly agreed, 45 (29.6%) agreed, and four (2.6%) disagreed that an increase in FDI would close the investment gap in the EC. Twelve respondents (7.9%) remained neutral (see table 4-75 below).

Table 4-75: Increased foreign direct investment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	4	2.6	2.6	2.6
Neutral	12	7.9	7.9	10.5
Agree	45	29.6	29.6	40.1
Strongly agree	91	59.9	59.9	100.0
Total	152	100.0	100.0	

A dedicated provincial agency to deal with investment promotion in the province

The provinces that make the most significant contribution to SA's economy (Gauteng, KwaZulu-Natal and the Western Cape) all have dedicated investment agencies. This is not the case in the EC and the respondents were asked if they felt that it would make any meaningful difference to establish one in the province. The responses are presented in table 4-76. Of the 152 respondents, 100 (65.8%) strongly agreed that there is a need for a provincial investment agency, 42 agreed, five remained neutral, four disagreed and one strongly disagreed.

Table 4-76: Provincial agency

	Frequency	Percent
Valid Strongly disagree	1	.7
Disagree	4	2.6
Neutral	5	3.3
Agree	42	27.6
Strongly agree	100	65.8
Total	152	100.0

In recognition of the importance of investment, the South African government has launched investment One-Stop Shops to reduce the red tape involved in obtaining the authorisations required for investment, remove bottlenecks and reduce the complications involved in importing core and critical skills (DTI, 2016). Trade & Investment KwaZulu-Natal promotes inward investment; it aims to ensure that the province is a premier investment destination to facilitate trade by assisting local companies to access international markets. The agency identifies, develops and packages investment opportunities in KwaZulu-Natal, provides professional support to its clientele and links investment opportunities to the developmental needs of the KwaZulu-Natal community (TIKZN, 2017). Wesgro is the official Tourism, Trade & Investment Promotion Agency for Cape Town and the Western Cape; it has consistently attracted massive investments involving 25 projects with a value of R27.17bn (WESGRO, 2016). Wesgro will consider setting targets to assist local companies to invest on the African continent, as this offers a unique opportunity to develop partnerships and to grow exports (WESGRO, 2016).

Involvement of traditional leaders in promoting investment in the province

As noted earlier, the EC is a largely rural province and chiefs are regarded as custodians of the land. Table 4.77 reflects the respondents' views on whether traditional leaders should be involved in promoting investment in the province. Interestingly, none of the frequencies is above 50%. The table shows that, 67 respondents (44.1%) strongly agreed with this statement, while 65 (42.8%) agreed, 16 (10.5%) chose to remain neutral, three disagreed and one strongly disagreed (2.0% and 0.7%, respectively).

Table 4-77: Involvement of traditional leaders in promoting investment in the province

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	3	2.0	2.0	2.6
Neutral	16	10.5	10.5	13.2
Agree	65	42.8	42.8	55.9
Strongly agree	67	44.1	44.1	100.0
Total	152	100.0	100.0	

The role of traditional leaders is vital if the EC is to attract investment in its rural areas. The province needs to find ways to empower non-state actors to become dynamic co-participants in transformative development (Mike, 2013).

Land reform is urgently required in SA and especially the EC in order to resolve the complex relationships between traditional and constitutional issues.

Table 4-78: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
4.8.1 Increased public sector investment	152	4.59	.556	.045
4.8.2 Increased private sector investment	152	4.63	.639	.052
4.8.3 Increased foreign direct investment	152	4.47	.754	.061
4.8.4 A dedicated provincial agency to deal with investment promotion in the province	152	4.55	.744	.060
4.8.5 Involvement of traditional leaders in promoting investment in the province	152	4.28	.782	.063

Table 4-79: One-Sample Test

	Test Value = 3						
						95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper	
4.8.1 Increased public sector investment	35.292	151	.000	1.592	1.50	1.68	
4.8.2 Increased private sector investment	31.361	151	.000	1.625	1.52	1.73	
4.8.3 Increased foreign direct investment	23.990	151	.000	1.467	1.35	1.59	
4.8.4 A dedicated provincial agency to deal with investment promotion in the province	25.729	151	.000	1.553	1.43	1.67	
4.8.5 Involvement of traditional leaders in promoting investment in the province	20.116	151	.000	1.276	1.15	1.40	

A summary of the average responses is set out in figure 4-8 below. On a scale of 1-5, agreement on an increase in private investment scored 4.63, an increase in public sector investment is at 4.59, a dedicated investment agency at 4.55, agreement on an increase in FDI stands at 4.47 and agreement on the involvement of traditional leaders in the province is at 4.28.

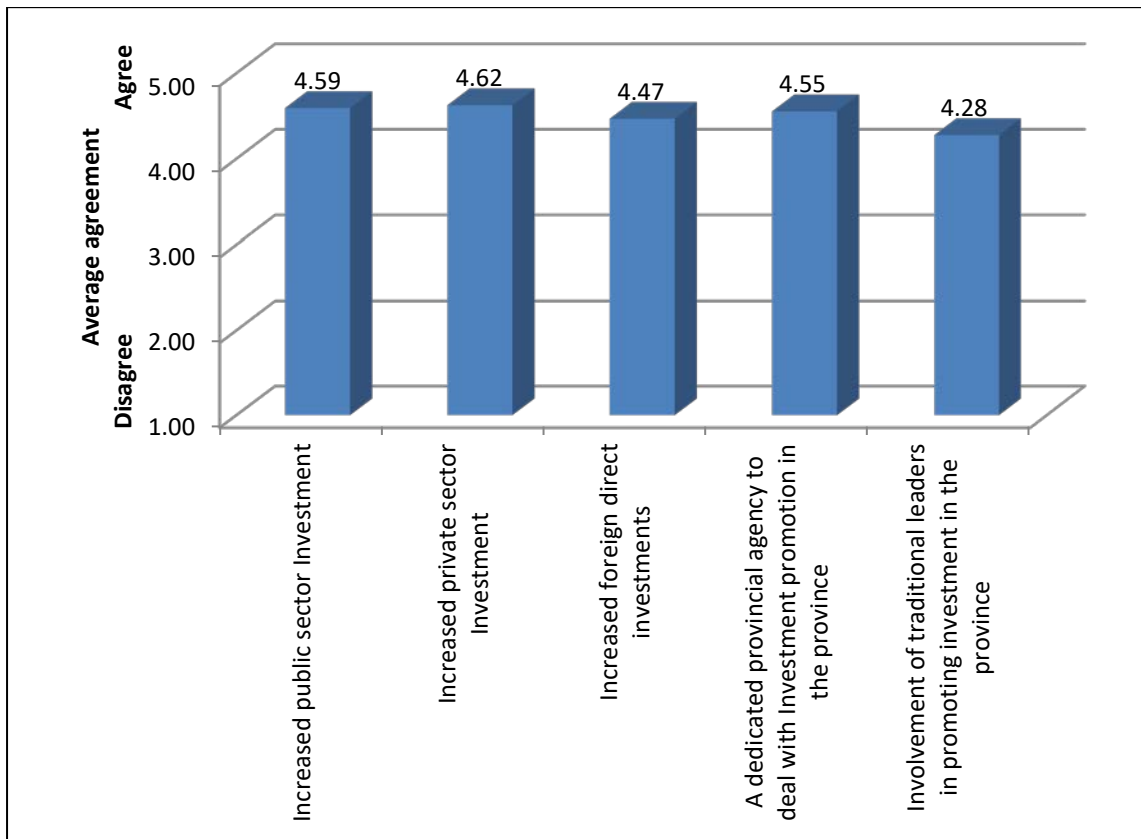


Figure 4-8: Summary

The role of political leadership in attracting increased investment

Question five in the questionnaire contained the four statements set out in table 4-80. The purpose was to understand the respondents' perceptions of the role of political leadership in attracting investment growth in the province. The respondents were given five options: strongly disagree, disagree, neutral, agree and strongly agree.

Table 4-80: The role of political leadership in attracting increased investment

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
5.1 There is a strong relationship between political leadership and investment growth					
5.2 There is adequate political leadership at municipal level to promote investment					
5.3 The current political leadership is successful in promoting investment locally and abroad					
5.4 The current political leadership makes decisive decisions when addressing matters of investment					

5.1 Strong relationship between political leadership and investment growth

Table 4-81 shows that, a significant number of respondents (102, 67.1%) strongly agreed that there is a strong relationship between political leadership and investment growth. Fewer (38, 25%) agreed; nine (5.9%) remained neutral; and three respondents (2%) disagreed that there is a relationship between strong political leadership and investment growth.

Table 4-81: Strong relationship between political leadership and investment growth

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	3	2.0	2.0	2.0
Neutral	9	5.9	5.9	7.9
Agree	38	25.0	25.0	32.9
Strongly agree	102	67.1	67.1	100.0
Total	152	100.0	100.0	

The abilities of political leadership have far reaching implications for the outcomes of well-intended economic policies and reforms (Chandran, 2016). Part of the problem in SA is weak political leadership, which negatively affects the economy. Instead of resolving economic bottlenecks, SA has witnessed public spats between political leaders and court battles, resulting in a weaker rand in some instances. It is clear that politics cannot be divorced from the economy (Gordham, 2016).

5.2 Adequate political leadership at municipal level to promote investment

Sixty-nine respondents (45.4%) disagreed that there is adequate political leadership at municipal level to promote investment; and 48 (31.6%) strongly disagreed with the statement. Interestingly, 17 (11.2%) respondents agreed with the statement. A further nine respondents (5.9%) remained neutral and strongly agreed, respectively, that there is adequate political leadership at municipal level to promote investment. Table 4-82 tabulates the responses.

Table 4-82: Adequate political leadership at municipal level to promote investment

	Frequency	Percent
Valid Strongly disagree	48	31.6
Disagree	69	45.4
Neutral	9	5.9
Agree	17	11.2
Strongly agree	9	5.9
Total	152	100.0

The two provincial metros have the slowest growth rate in the country and the district municipalities are dependent on government budget allocations and cannot survive on their own (Lewis, 2016; StatsSA, 2014). The reality is that the province is battling to attract investment due to a number of factors such as political infighting, a lack of infrastructure, and a lack of skills. These problems are particularly acute at district and local municipal level.

The current political leadership is successful in promoting investment locally and abroad

Half of the respondents (76) disagreed that the current political leadership is successful in promoting investment locally and abroad. Thirty-six (23.7%) remained neutral and 29 respondents (19.1%) strongly disagreed with this statement. Six respondents (3.9%) agreed and five strongly agreed that the current political leadership is successful in promoting investment locally and abroad (see table 4-83 below).

Table 4-83: Political leadership is successful in promoting investment locally and abroad

	Frequency	Percent
Valid Strongly disagree	29	19.1
Disagree	76	50.0
Neutral	36	23.7
Agree	6	3.9
Strongly agree	5	3.3
Total	152	100.0

LED is at its lowest levels in municipalities and yet it is supposed to drive investment in economic development. The national COGTA LED framework is old, having been adopted for 2006-2011; for the past five years, there has been no economic development framework for LED. This policy gap suggests that political leadership's investment promotion locally and abroad has not yielded investment growth. The EC is battling to attract investment, especially in rural areas.

The current political leadership makes decisive decisions when addressing matters of investment

Of the 152 respondents, 61 disagreed with this statement, and 57 strongly disagreed (40.1% and 37.5%, respectively). Twenty-two respondents were neutral; eight agreed and four strongly agreed (5.3% and 2.6%, respectively). The frequencies and percentages are set out in table 4-84 below.

Table 4-84: Political leadership makes decisive decisions when addressing matters of investment

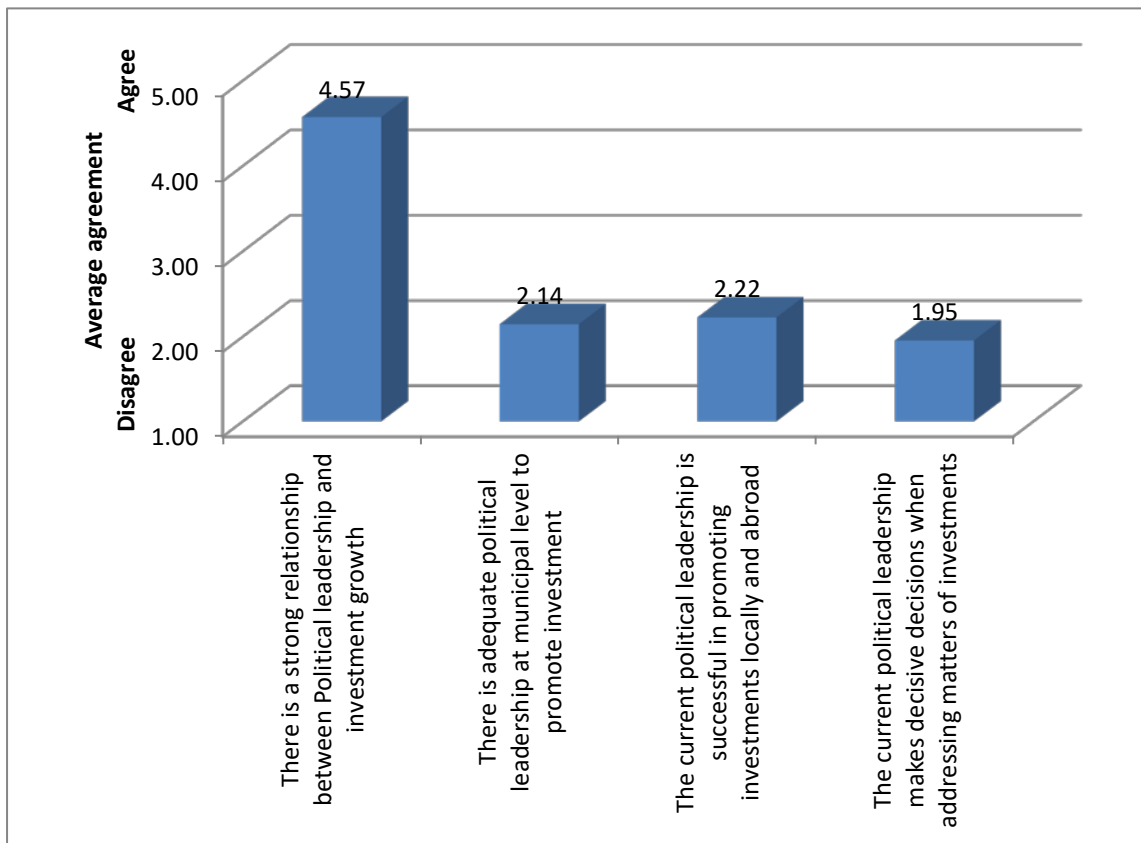
	Frequency	Percent
Valid Strongly disagree	57	37.5
Disagree	61	40.1
Neutral	22	14.5
Agree	8	5.3
Strongly agree	4	2.6
Total	152	100.0

The overall response is that provincial leadership does not make decisive decisions when addressing matters of investment. Decisive and strong political leadership is required to overcome petty politics that is often motivated by self-interest (Mike, 2013; Quintal, 2015).

Figure 4-9 below presents a summary of the responses on the role of political leadership in the province. The level of agreement on the strong relationship between political leadership and investment growth is 4.57, while the level of disagreement with

the statement that there is adequate political leadership at municipal level to promote investment is at 2.14. The level of disagreement that the current political leadership is successful in promoting investment locally and abroad stands at 2.22 and finally, there is a level of disagreement of 1.95 on whether the current political leadership makes decisive decisions when addressing matters of investment.

Figure 4-9: The role of political leadership in attracting increased investment



Bivariate analysis

Concluding the analysis, a bivariate analysis was conducted to determine if there was any empirical relationship among the questions (Kabacoff, 2015). Tables 4-85 to 4-89 show the similarities and disparities

- 1.2 and 3.6
- 2.1 and 5.1
- 2.3 and 3.1
- 2.4 and 1.2

- 2.6 and 1.3 - 2.7 and 3.12

Pearson's correlation was applied as it measures the relationship between two sets of variables or data and shows the linear relationship (O'Rourke & Hatcher, 2013).

Table 4-85: Political willingness and public sector investment in infrastructure

		1.1 Political willingness to make decisions on investment	3.6 Increase in public sector investment on infrastructure
1.1 Political willingness to make decisions on investment	Pearson Correlation Sig. (2-tailed) N	1 152	.360** 152
3.6 Increase in public sector investment in infrastructure	Pearson Correlation Sig. (2-tailed) N	.360** 152	1 152

** . Correlation is significant at the 0.01 level (2-tailed)

There is a significant positive correlation between these two items ($r=.360$, $p<.0005$). Correlation can be interpreted as a positive relationship: agreement on one item is associated with agreement on the other. The conclusion drawn is a strong linear

positive relationship between political willingness to make decisions on investment and an increase in public sector investment in infrastructure.

Table 4-86: Lack of sufficient political will and the relationship between political leadership and investment growth

		2.1 Lack of sufficient political will	5.1 There is a strong relationship between Political leadership and investment growth
2.1 Lack of sufficient political will	Pearson Correlation	1	.389**
	Sig. (2-tailed)		.000
	N	152	152
5.1 There is a strong relationship between political leadership and investment growth	Pearson Correlation	.389**	1
	Sig. (2-tailed)	.000	
	N	152	152

** . Correlation is significant at the 0.01 level (2-tailed)

There is a strong correlation between the lack of sufficient political will and the relationship between political leadership and investment growth.

Table 4-87: Lack of infrastructure and government investment in economic infrastructure

		2.4 Lack of infrastructure	1.2 Investment by government in the economic infrastructure
2.4 Lack of infrastructure	Pearson Correlation	1	.188*
	Sig. (2-tailed)		.020
	N	152	152
1.2 Government investment in economic infrastructure	Pearson Correlation	.188*	1
	Sig. (2-tailed)	.020	
	N	152	152

*. Correlation is significant at the 0.05 level (2-tailed)

There is a strong correlation between the lack of infrastructure and government investment in economic infrastructure.

Table 4-88: Lack of monitoring and evaluation by government and improved governance in the province

		2.6 Lack of monitoring and evaluation by government	1.3 Improved governance in the province
2.6 Lack of monitoring and evaluation by government	Pearson Correlation Sig. (2-tailed) N	1 152	.196* 152 .015
1.3 Improved governance in the province	Pearson Correlation Sig. (2-tailed) N	.196* 152	1 152 .015

*. Correlation is significant at the 0.05 level (2-tailed)

The analysis points to a strong correlation between the lack of monitoring and evaluation by government and improved governance in the province.

Table 4-89: Lack of efficiency in spending investment funding and grants and efficient investment in funding by government

	2.7 Lack of efficiency in spending investment funding and grants	3.12 Efficient investment on funding by government
2.7 Lack of efficiency in spending investment funding and grants	1	.252**
Pearson Correlation		
Sig. (2-tailed)		.002
N	152	152
3.12 Efficient investment in funding by government	.252**	1
Pearson Correlation		
Sig. (2-tailed)	.002	
N	152	152

** . Correlation is significant at the 0.01 level (2-tailed)

4.3 CHAPTER SUMMARY

The chapter presented and discussed the statistical results in relation to the research objectives. The majority of the respondents were female who constituted 59.9% of the sample, while males made up 40.1%. In all the questions, the level of agreement was significant; the mean was above four, which is agreed. There was significant agreement that the factors listed in the first part of section B of the questionnaire would entice investment in the province. The mean for part 2 shows a high level of agreement with the level of significance above four; this confirms that the factors listed in this subsection contribute to low investment trends in the province. The mean for part 3 was also above four, confirming that the listed strategies would attract more investment in the province. The majority of the respondents agreed that the EC would not reach the NDP target of 30% investment to GDP by 2030. They also indicated that the province does not have an investment model and investment strategy. The respondents agreed that all the areas listed are key strategic investment areas for the province and agreed on the ways of closing the investment gap.

The respondents expressed low confidence in provincial and political leadership and agreed there is a strong correlation between political leadership and investment growth. Furthermore, they disagreed that there is adequate political leadership at municipal level to promote investment. They also disagreed that the current political leadership is successful in promoting investment locally and abroad and that it makes decisive decisions in addressing matters of investment.

Bivariate analysis was conducted to determine correlation in the responses. The quantitative research findings clearly show significant agreement on the questions that were posed to the respondents. They concurred on the factors that would entice investment in the province and agreed on the factors that contribute to low investment trends and the strategies required to attract more investments in the EC. A significant number of respondents indicated that the province would not be able to reach the NDP target of 30% investment to GDP by 2030. The respondents confirmed that the province currently does not have an investment model and indicated that it suffers an investment gap. They also confirmed that there is no provincial investment target for government departments, the private sector, municipalities and FDI. The largest proportion of the respondents indicated that their annual investment forecast for the

present period to 2030 is between 5% and 10%. The respondents agreed that all the investment areas listed are very important in the EC. Their ideal investment increase to close the identified investment gap in the province was 43.4% for the public sector, 46.7% for the private sector and 39.5% for FDI. The respondents also agreed with the listed approaches to close investment gap, i.e., an increase in public and private sector investment, complemented by an increase in FDI. They suggested the establishment of a dedicated provincial agency to deal with investment promotion and that traditional leaders should be involved in promoting investment in the EC. Finally, the respondents expressed a strong lack of confidence in the role of political leadership in attracting investment and growth in the EC.

Chapter 5 presents and discusses the findings from the qualitative research (interviews).

CHAPTER 5 RESULTS AND DISCUSSION OF QUALITATIVE DATA ANALYSIS

This chapter presents the findings from the primary data that were gathered during face-to-face in-depth interviews. The secondary data was collected from books, government publications, reports, newspapers, conference papers, published statistics, investment seminars, websites and youth discussion forums. This chapter presents and discusses the qualitative research findings. It begins by detailing how the qualitative data was analysed; some references are also made to the discussion of the quantitative results. The final section summarises the chapter.

5.1. QUALITATIVE DATA ANALYSIS

Thematic analysis is very similar to content analysis, but it pays more attention to the qualitative aspects of the material analysed. However, there are differences between the two approaches (Joffe, 2012). Content analysis is the accepted method to examine texts in mass communications research, numerical descriptions of a given text, or a series of images (Joffe, 2012; Joffe & Yardley, 2004). This research study used themes and content to analyse the qualitative data collected through semi-structured interviews. The analysis was complemented by NVIVO, qualitative research analysis software.

Responses from interviews

The total envisaged sample for the qualitative research at the beginning of the study was 20 participants and all 20 respondents were interviewed. The respondents are practitioners, experts, decision makers, and executives who are influential in formulating investment budgets and making investment decisions. They were selected from government departments, metros, district municipalities, development agencies, banks, development finance institutions, SOEs and business formations. The respondents were chosen because of their expert insights into investment and economic growth in the EC. Saturation point was reached when 15 respondents

identified the same challenges, but the researcher continued with the intention of obtaining different voices that would enrich the research study.

After the conclusion of 20 interviews, the researcher conducted five additional interviews, for specific pointers on key issues that needed clarification. Thus, a total of 25 interviews were conducted.

Analysis of Responses from Interviews

Section B: Questions for the structured interviews

QRQ 1: Why have rates of investment been low?

All the respondents highlighted poor political leadership and political conflict from provincial to local level as significant contributors to low investment in the EC. They also identified a lack of infrastructure to enable investment in rural and urban areas as well as inefficient government spending of allocated investment funding and a low budget allocation. The municipal sphere of government emphasised a lack of funding as a key cause of low investment growth at this level of governance. Poor investment drive, land reform challenges, a paucity of public-private partnerships, lack of technical capacity and migration of skills were also identified as important issues. Figure 5-1 below provides a summary of responses to this question (shown as a “child” SPSS language).

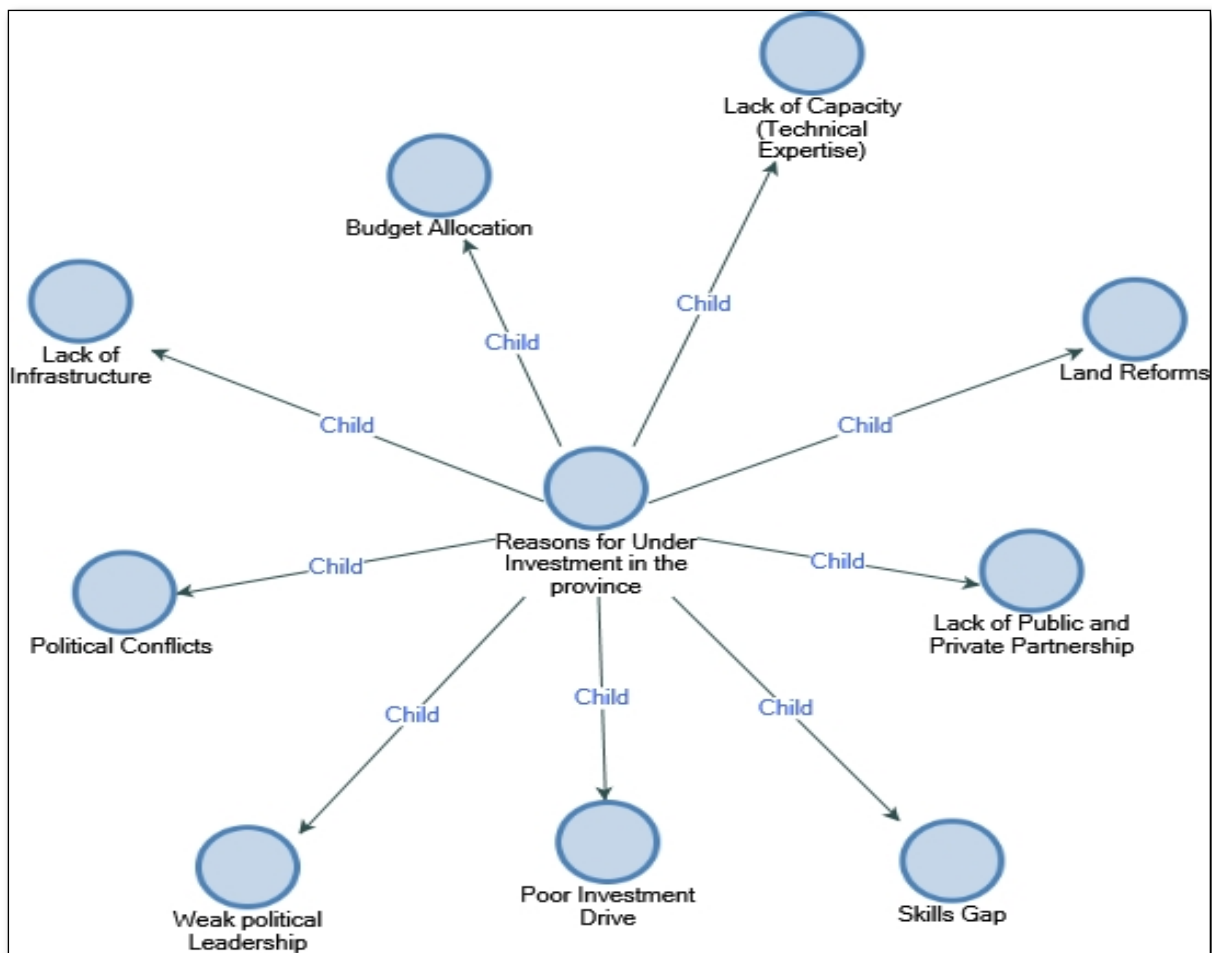


Figure 5-1: Reasons for low rates of investment

The EC Province is facing a barrage of complex issues, South Africa's economic growth is stagnant compared to other Southern African Development Community (SADEC) countries; economic growth is an investment incentive. The country's FDI has been declining and the EC has struggled more to attract investment than the three main hubs - Gauteng, KwaZulu-Natal and the Western Cape. Although SA is the most industrialised country in Africa, its stringent labour laws have been partly blamed for the decline in industrial activity, resulting in high unemployment rates.

The EC continues to be a labour supplier to other provinces and its inhabitants thus rely on remittances. This negatively impacts the province's growth prospects. The small provincial economy is the result of historical marginalisation. The three economic hubs receive the biggest slice of the investment pie and have the most developed markets. The EC has not been able to carve out niche markets for itself. Its location,

rural nature and failure to utilise its natural resources have contributed to low rates of investment in the province.

Poor provincial governance continues to pull the province down; maladministration and corruption appear to be the order of the day. The respondents were not shy to state that municipalities are dysfunctional and that there is conflation between administrative and political leadership. Moreover, there seems to be no accountability for administrative failure.

National political issues spill over to provinces through the patronage network. Strong political leadership is lacking in all sphere of government. The EC is under-investing because the focus is on East London and Nelson Mandela Bay. There has been high turnover of mayors in the metros and district municipalities and high staff turnover in government departments. Poor political leadership and instability hamper investment.

Furthermore, the plans developed by the province do not match its needs. Current policies are not investment focused and provincial incentive programmes are not clear. There is little to entice an investor to commit to the province. Moreover, returns on investment are low due to corruption and wasteful government expenditure. The province has a reputation for being corrupt; indeed, even EC government employees subscribed to this view.

The respondents were of the strong view that infrastructure challenges are hampering investment in the EC. A lack of collaboration amongst government departments and the silo mentality contribute to low rates of investment. The lack of bulk and economic infrastructure is said to be chasing investors away; rail, roads and ICT are classic examples. Furthermore, low quality education and poor school facilities deter investors, especially those from the private sector (Coega, 2014).

The EC suffers a significant skills and expertise deficit, particularly in the rural municipalities. This challenge is most evident in the former Transkei. The respondents also articulated the need for competent leadership of the investment unit in DEDEAT. They added that, due to a lack of competence in the sphere of investment, the ECDC, which is the EC's investment arm, has failed dismally. Furthermore, the respondents noted that provincial agencies lack understanding of investment. The ECDC should advocate for investment policy, and build the EC's image and brand as an investment

destination. The respondents added that there is insufficient funding to promote investment.

The respondents indicated that the DEDEAT and district municipalities lack investment champions to attract investors. The ECDC does not have sufficient capacity and technical expertise to drive investment in the province. Its understanding of investment is very limited. Experiences of exhibitions and after care services suggest that the ECDC is often confused about pre- and post-investment activities. Monitoring of investment is weak and there is a lack of oversight. Finally, the respondents indicated that land issues hamper investment, especially in the former Transkei.

While South African intergovernmental systems are complex, this should not be used as an excuse for blurred lines of responsibility. The performance monitoring and evaluation department in the presidency was meant to tighten accountability in government departments (N. P. Commission, 2013). However, there is lack of coordination among the spheres of government within the province and an overlap among agencies. The EC is battling to monitor the performance of its departments and the premier's office has made little progress in this regard.

Part of the dilemma is that the EC has not embraced all role players in the development space, be they chiefs, the private sector or civil society. Coupled with weak inter-governmental relations, this is preventing the province from prospering. The province is not crowding sufficient public investment from the national level. There is little collaboration between the public and private sectors or with civil society and reforms aimed at improving the civil service and administration such as the clustering system have not yielded positive results. Furthermore, trade unions are not having a positive impact in driving investment. At community level, infighting and a lack of understanding of development and governance has resulted in a dependency syndrome. Furthermore, the black middle class has failed to use its skills to advance investment in the province.

The EC is battling to expand its revenue and provincial income is way below that of the main economic hubs. It lacks a strategy to expand its revenue collection, particularly from the health and transport departments. Until such time that key provincial departments like Treasury, Agriculture, DEDEAT, and Health and Transport

realise that they are the key to provincial revenue expansion, this situation will not change. The lack of sound ICT investment leads to a duplication of costs, especially in hospitals; the department spends money on retesting because manual files are lost or the patient had gone to a different hospital within the province. A smaller civil service would also reduce costs. Expenditure on personnel compensation in some provincial departments averages 77% and this is not always matched by increased productivity (Budget Review, 2015). Administrative inefficiencies have resulted in some people continuing to be paid three to six months after they left government.

The respondents suggested that a more restricted curriculum could assist in reducing the Department of Education's expenditure as would consolidation of departmental planning. Improved governance is urgently required; this would also assist in getting rid of dead wood in government departments. Citizens should be aware that the government is not a job creator but a facilitator. Political and administrative reforms are thus required to set the EC on the right path.

The EC does not have an aggressive investment marketing drive within and outside the province and there is ambiguous articulation of why it is an investment destination. Furthermore, the province lacks a rural investment marketing strategy. Finally, there is no clear investment incentive strategy; rather, fragmented investment strategies have been adopted by district municipalities, metros, the ECDC and both provincial IDZs.

The respondents also noted that addressing weaknesses in the local agricultural sector could attract investment in agro-processing. The failure of the ECDC and IDZs to attract investment was noted. Low returns on investment, a lack of political will, the inadequate role played by universities, and a lack of collaboration among government departments are the key issues that emerged. In terms of policy uncertainty, the province lacks a clear policy and agenda, an investment strategy and economic hubs and corridors in rural municipalities. The DEDEAT focuses on projects rather than development. The failure to co-ordinate the provincial agencies (the ECDC, Ntinga, Aspire, and ECRDA) has resulted in them becoming political tools. The Office of the Premier (OTP) should play a stronger role in this regard. The respondents bemoaned that SOEs are used as sources of income for individuals. They noted that these entities seem to believe that they are stronger than government and constitute a government

within government. Furthermore, there are poor relationships between SOEs and other institutions.

Respondent 5 stated that, “The posturing of SOEs is a money laundering exercise; they are not viable, not properly aligned to the mandates of their parent companies. As for the two IDZ in the province there`s no return on investment. They need to change their business model and hence there are strong tensions between the IDZs and the provincial treasury. The impact of provincial SOEs is minimal. ECDC is weak even on SME funding. Statistics show that SMEs heavily rely on government business or tenders.”

The respondents indicated that part of the problem might be that the province is very large. However, the Coega and East London IDZs suffer spatial limitations.

QRQ 2: What are the factors contributing to low investment?

The respondents indicated that the factors that contribute to the low rate of investment in the province include:

- Political issues and problems at times result in chaotic leadership. Provincial departments are not target based.
- Poor or lack of infrastructure
- Poor governance and administration
- Lack of co-ordination among government departments
- Lack of an integrated long-term vision in the public and private sectors
- A lack of proper planning by government and its departments

Respondent 12 stated that leadership is said “To reward people who continually fail the province (national and provincial). The leadership is indecisive and slow in making decisions. The province has political factions and is busy appeasing those factions. There is broad political failure among the provincial political leadership in levels of the province. The political leadership is said not to be responsible for anything; and is not accountable to anyone, approximately 90% of HOD and CEOs are politicians and that brings a negative dynamic to the province.”

Respondent 5 was of the view that, “Eastern Cape and investments don’t mix; they cannot be put in the same line. People of the province have no confidence in the leadership and how do we expect the investors to have one?” The same respondent recalled that, “In 2015 economic symposium, DEDEAT was ducking and diving without providing any substantial answers to the provincial economic challenges and direction.”

Furthermore, the respondents observed that non- performing MECs are not removed from office, resulting in serious management deficiencies. For example, opposition parties and citizens called on the EC premier to fire the education MEC for failing to spend R530 million allocated for school infrastructure. The education department, which receives around 45% of the province’s budget (Somyo, 2016), did not spend 33% of its allocation for infrastructure (George & Ford, 2016).

QRQ3.1: In your opinion, is there an investment gap in the province?

All the respondents agreed that the EC Province suffers a significant investment gap. This is in line with the quantitative findings presented in the previous chapter. Interviewees noted that this gap is more visible in district municipalities and the extremely poor infrastructure in district and local municipalities, particularly in the former Transkei. It explains district municipalities’ low contribution to the provincial GDP (Coega, 2014). The province’s per capita fixed capital stock is the lowest in South Africa, resulting in infrastructure gaps, with long term, adverse effects on economic growth. This is due to the EC’s inability to attract private sector investment, making it difficult to crowd inward investment. Private sector investment is dependent on the public sector’s ability to create a conducive economic and political environment (Coega, 2015). The literature notes that government investment represents 7% of the budget. However, some of this funding remains unspent, and inflated tender prices, poor execution and poor quality end products exacerbate the situation. As noted earlier, the EC is confronted by historical infrastructure backlogs, not to mention current imperatives (Makgetla, 2016).

Respondent 22 stated that, “The government pays 25-30% more on procurement of services or goods than the private sector would pay for services from their service

provider”. That already reduces the low investment budget allocation and the extent of the actual infrastructure. Also, erecting infrastructure like fencing costs more, especially in the rural areas; if fencing poles are installed without concrete, they will all be stolen the next day, so they need to be cemented and that increases the costs. These results confirm the findings in the literature that the high construction costs of public infrastructure, poor planning and management, poor and often corrupt tender systems and skills constraints are some of the challenges faced by government in rolling out infrastructure (Ajam, 2014). This assertion is confirmed by (Fin24, 2017) and projects the cost of corruption to be around 30% or 40% to the initial project estimates; this comes inflated quotes on government projects. If a country has such waste leakages due to corruption, certainly it will end up never having the economic growth that an infrastructure investment can bring and instead will accumulate more debt. The infrastructure investments will not be a solution but become part of the problem (Fin24, 2017)

QRQ3.2: What is your understanding of the national investment target and that for the province?

As shown in figure 5-2 below, the respondents were familiar with the NDP and its investment target of 30% to the GDP. However, none had any knowledge of a provincial investment target.

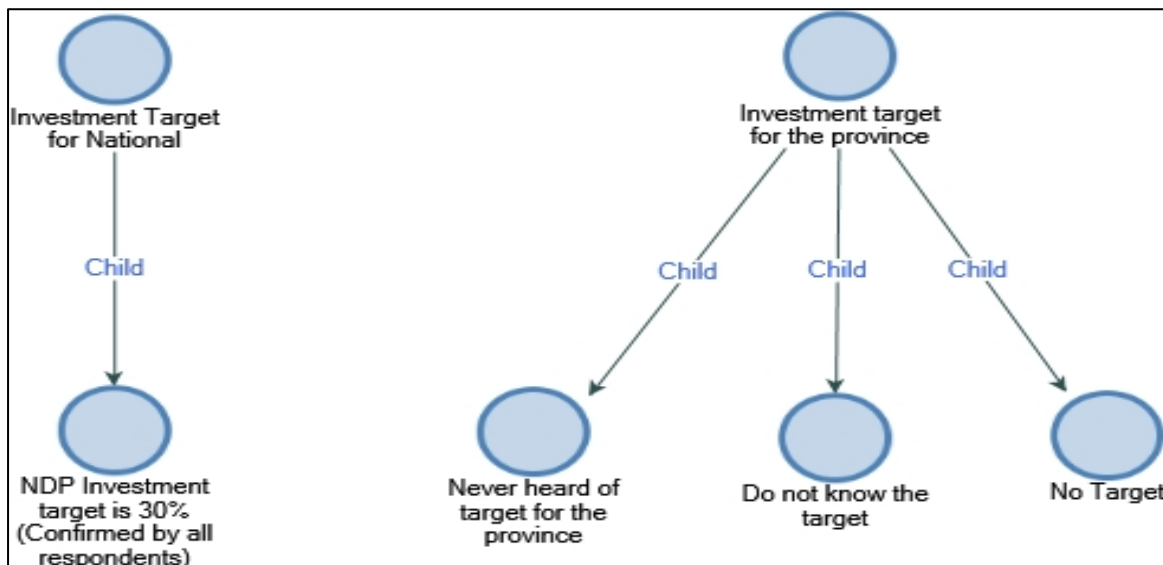


Figure 5-2: Investment target

Furthermore, respondents from the ECDC, DEDEAT, district municipalities, both IDZs, metros and Treasury stated that they were not aware of a provincial investment target. Representative of the Coega and East London IDZs stated that they were only familiar with their internal targets. These IDZs have set a target of 14 new investments with a value of R2.237 billion (Masualle, 2015). Staff at Coega stated that their internal target is 11 new investors or R1.5/6 billion per annum. This confirms that provincial departments do not set targets and raises the question of how monitoring can occur without targets. While the Eastern Cape SERO indicated that a GFCF of between 20% and 25% of GDP would be considered a suitable target to achieve the required expansion of infrastructure and productive capacity, none of the departments seems to be aware of this target (Eastern Cape Economic Development & Treasury, 2014).

The researcher also established that the provincial development plan does not set quantitative targets. If one cannot measure something, one cannot manage it. This means that provincial heads of department cannot allocate the required resources to achieve such targets. Municipalities also do not set targets but simply depend on grants and budget allocations for a particular year. In contrast, investment decisions in the private sector are informed by demand, profit margins and future growth prospects.

QRQ3.3: In your opinion, is the province under-investing?

All the respondents agreed that the province and the country as a whole is under-investing (see figure 5.3). According to Somyo (2016), “these tough times require us to curb provincial wages over the medium term which is currently sitting at 65%”

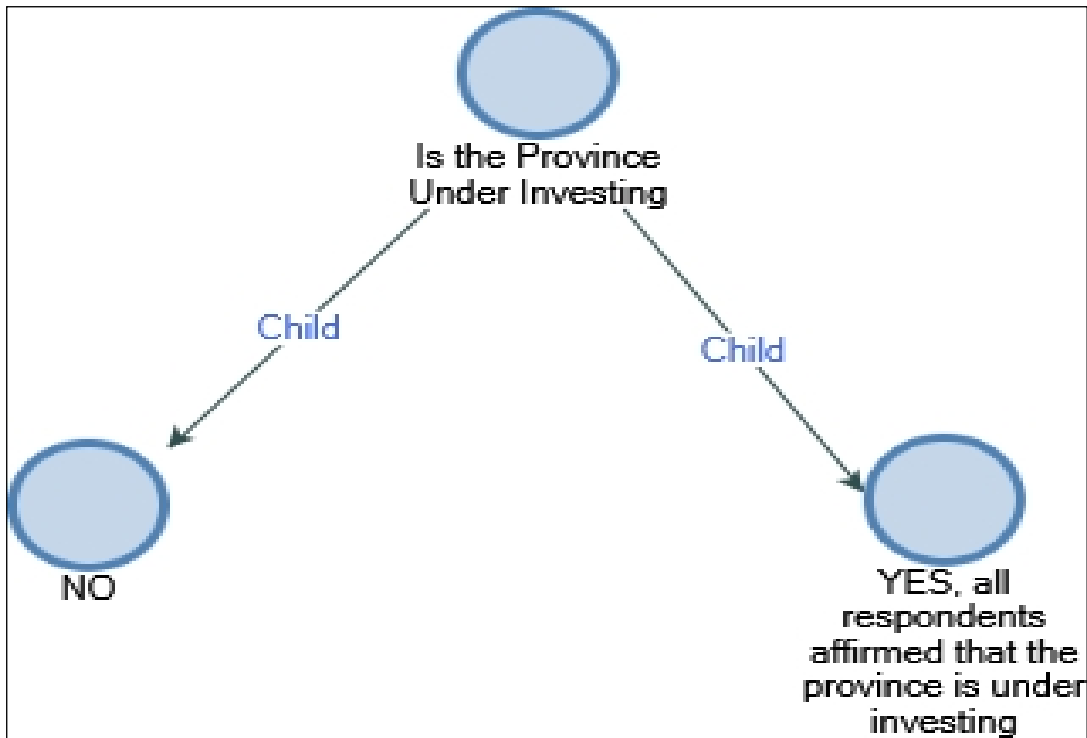


Figure 5-3: Provincial under-investment

As long as the EC continues to have such a high wage bill, coupled with low productivity, under-investment will continue and it will lag behind other provinces. As noted previously, it currently only allocates 7% of its budget to investment and this decreases further when one factors in under-spending (Treasury, 2016).

QRQ3.4: Why is the province under-investing?

Figure 5-4 shows that, in the respondents' view, under-investment is caused by a low budget for investment as well as a lack of collaboration among government departments, which at times results in duplication of projects. Furthermore, there is no aggressive investment and marketing drive within and outside the EC. It is not clear why the province should be considered an investment destination and why it presents investment opportunities. Furthermore, there is no marketing drive to attract investment in rural areas.

Another reason for under-investment is the fragmented investment strategies in the province among district municipalities, departments and SOEs. The respondents also pointed to the declining agricultural sector and noted that, were the EC government to invest in this sector, it would attract investment in agro-processing.

Finally, it was noted that the ECDC and IDZs' failure to attract significant investment was a stumbling block and that the EC's universities could play a more positive role.

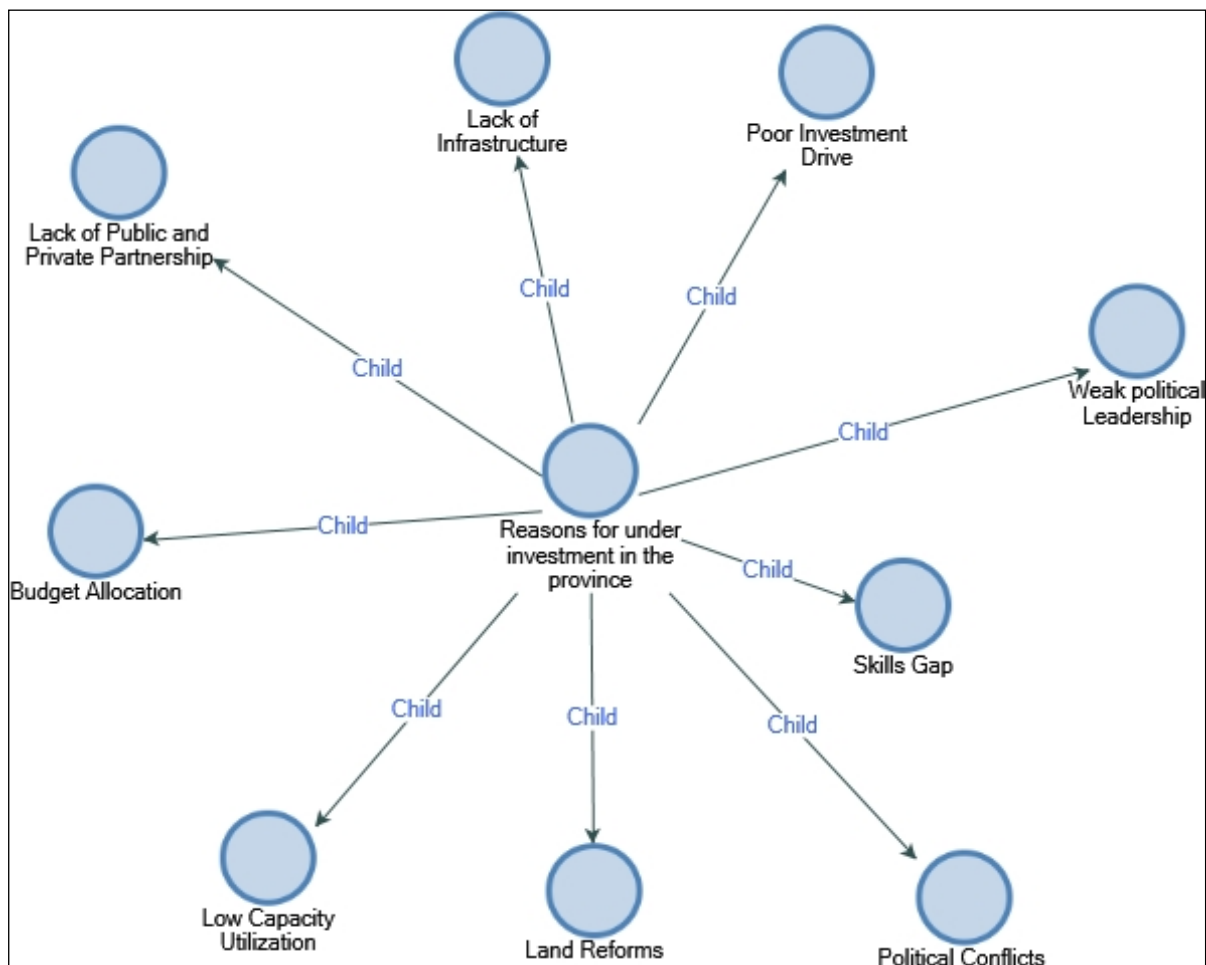


Figure 5-4: Reasons for under-investment

The respondents also cited the following factors that result in under-investment:

- Under-spending by municipalities and government departments
- Government grants are not increasing although the population is increasing
- Poor planning
- A lack of skills
- Chiefs and local government work independently although they are housed in one department
- No existing government infrastructure plan
- No central planning centre for all municipalities
- Departments rely heavily on consultants

QRQ3.5: What can be done to increase investment in the province?

The suggestions made by the respondents in this regard are presented in figure 5-5 below. The broad view was that the province needs to change its current mind-set and be investment focused. The interviewees pointed to the need for an EC investment agency. They suggested that the province host investment seminars for domestic and foreign investors. National Treasury and players like the Governor of the Reserve Bank could be approached to provide input on investment strategies and ways to address blockages. Furthermore, the province needs to encourage public sector investment in infrastructure in all spheres of government (provincial and local).

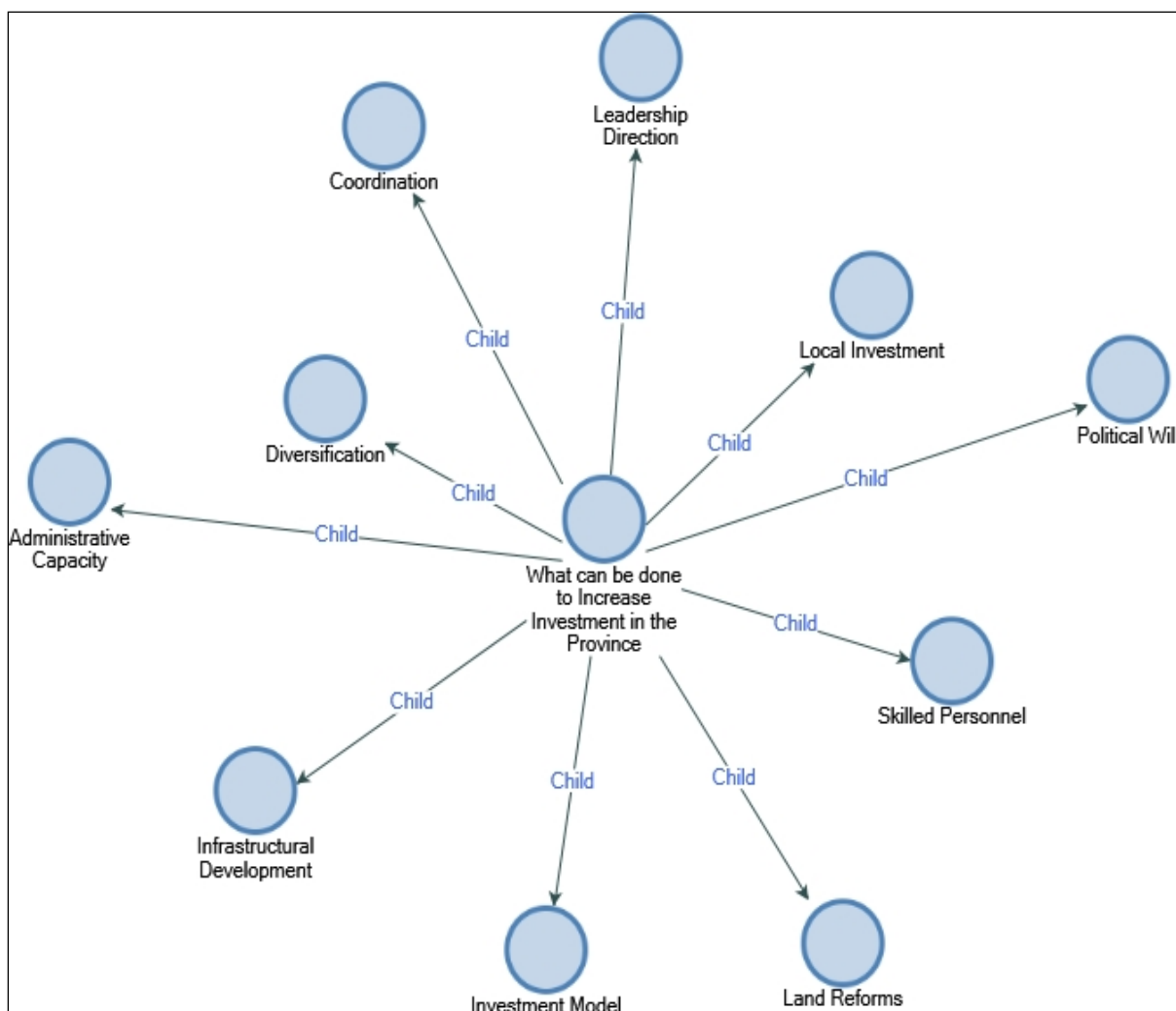


Figure 5-5: Strategies to attract investment

The respondents stated that the province should urgently address infrastructure backlogs and flag investment in economic and bulk infrastructure (logistics, roads).

The EC also needs to deal with political instability, strengthen political will and commitment and strengthen administrative capacity. It also needs to create an enabling environment for a new age of entrepreneurs that can take the province forward. Leadership is crucial and political and administrative leadership at all levels of governance requires a shift in mind-set to enable execution of projects. Effective monitoring and evaluation is crucial in achieving these objectives. Planning co-ordination among all structures is required and policies and supply chain mechanisms should be reviewed.

Furthermore, the provincial government needs to listen to potential investors, particularly the private sector, and address their concerns. Meaningful public-private partnerships will reduce distrust between government and the private sector. It also needs to collaborate with chiefs and communities (civil society) and involve universities in promoting investment and building a cohort of entrepreneurs who can take the province forward.

There is also a need to build on the successes of the two IDZs. Metros are better positioned to attract investment and they need to work with district municipalities, the IDZs and the private sector. Furthermore, skilled people should be employed in key positions.

Land problems, particularly in the former homelands where there are disputes and stagnant projects due to land claims, need to be addressed. An increase in investment funding and efficient spending will crowd in more investment. The province also needs to capitalise on its potential.

These findings are similar to the qualitative findings on what would entice investment in the EC.

QRQ4. What are the weaknesses of the current investment model of the province?

The respondents noted that there is no investment model or driver of inward investment in the EC (see figure 5-6 below).

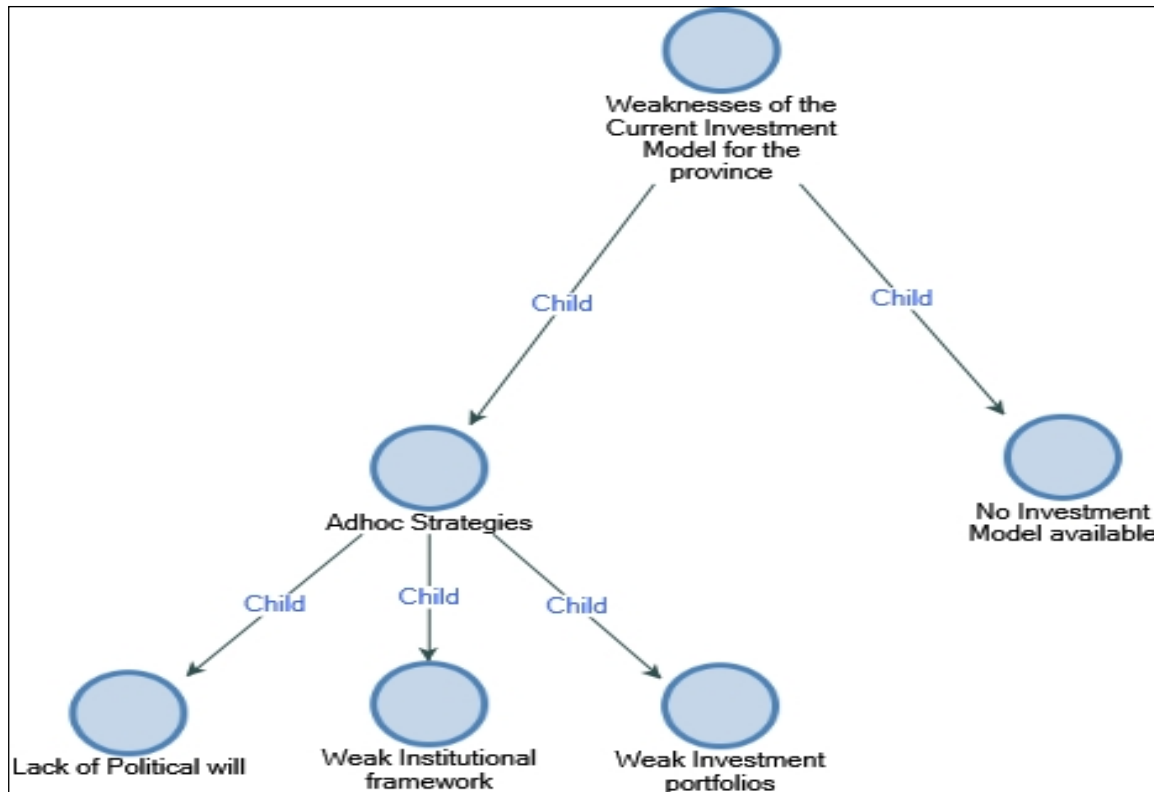


Figure 5-6: Provincial investment model

Respondent 25 stated that, “The investment attraction that we see in the province is very ad hoc, it’s an anomaly situation as there is no strong investment drive. There is no investment model and driver of inward investment in the province. The current model is not written on paper: (IDZs are driving the investment of the province). There is no framework currently, ECDC and IDZs have piecemeal strategies. All ECDC, IDZs, metro and district municipalities and agencies are all very weak in the province.”

As noted earlier, all the interviewees confirmed that there is no investment model, framework, or strategy in the EC. This means that:

- The province does not have a database of all investors. Only the IDZs and possibly metros are able to provide reliable information on investment and rand values.
- There is no record of rejected or pending investments.
- There is no identification of bottlenecks and no clarity on what each department is responsible for.
- The lack of a system, which could be used for information sharing, could also lead to double reporting on investment. Sharing information would also make investment forecasting in the province more realistic and would flag struggling municipalities and pertinent issues, making it easier to resolve them.
- The province does not have a system to monitor departments and municipalities, especially for investment purposes.
- Officials implicated in corruption and wrongdoing in the province do not seem to be held accountable.
- There is a lack of innovation centres and hubs.

The respondents also noted that, the main drivers of investment in the province, the DEDEAT and ECDC, suffer numerous weaknesses. The ECDC is not an investment promotion agency but development finance entity. It hence battles to attract investment and even struggles to finance SMMEs. This correlates with the findings from the questionnaire survey; only one of the 152 respondents stated that the EC has an investment framework. One respondent stated that the “ECDC is a failed agency as far as investment and development is concerned.”

The EC seems to lack appreciation of the role of investment; hence, the failure to adopt a coherent vision and plan. The province is largely rural and needs to be promoted as such. Contrary to claims on the ECDC website, district municipalities do not have budgets to offer investment incentives. Nonetheless, the premier of the EC recently stated that, “As part of promoting the province as an investment destination of choice,

we are developing an Investment Promotion Strategy aimed at creating an enabling environment for vibrant economic growth in the province” (Masualle, 2015).

The province should adopt a bottom-up approach that focuses on the performance of metros and district municipalities. Once rural or district municipalities and metros become vibrant and focussed on investment attraction, the province will start to witness growth. While Premier Masualle envisioned the EC as an investment destination of choice, the key departments and municipalities do not seem to have an inkling of the direction such investment should take.

QRQ5.1: How would you characterise the political leadership’s role in attracting and growing investment in the province?

Respondent 25 said that, “For the past 10-15 years, we have had a political leadership drought in the province and if we go this route or way, we are going nowhere.” Figure 5-7 shows that, the interviewees characterised the leadership as lacking capacity and vision. Infighting is also the order of the day.

All the respondents described the EC leadership as lacking agility to move the province forward. Provincial and regional/local leadership were characterised as weak and incoherent. They added that provincial departments were too large for the province’s revenue base; they need to be scaled down and only political leadership can make that bold call. The interviewees also agreed that the failure of political leadership in the EC is due to the muddled environment within the ruling ANC that places its leaders in portfolios and departments where they are not effective. They suggested that political leaders and councillors do not understand SA’s development vision. This begs the question: where have all the good political leaders gone and what steps have been taken to restore tried and tested leadership that is development focused? South Africa needs political and administrative leaders with a conscience. Where is the black intelligentsia in South Africa? The Black Management Forum’s (BMF) mission is to develop and empower managerial leadership especially amongst black people and advocate for socio-economic transformation.



Figure 5-7: The role of political leadership

Responded 24 emphasised that, “We at the mercy of ANC to give us good leaders. ANC does not employ on meritocracy. Indecisive political leadership that is occupied by political squabbles and positions. Political issues in the province are taking centre stage, rather than the actual development.” Respondent 26 observed: “I have been and am still a member of the ANC, but things will only change if a new organisation takes over in the province.” These results are similar to those emanating from the quantitative data gathered by means of the questionnaire.

QRQ5.2: What role should political leadership play in attracting investment in the province?

The role of political leadership is to be decisive and to tackle investment bottlenecks. It needs to be agile and responsive, and able to resolve political challenges that arise in municipalities. Figure 5-8 below shows that, the respondents stressed that political leadership should communicate and provide strong direction for the province. The EC premier could learn from the strategic communicative strategies adopted by the premiers of Gauteng, the Western Cape and KwaZulu-Natal.

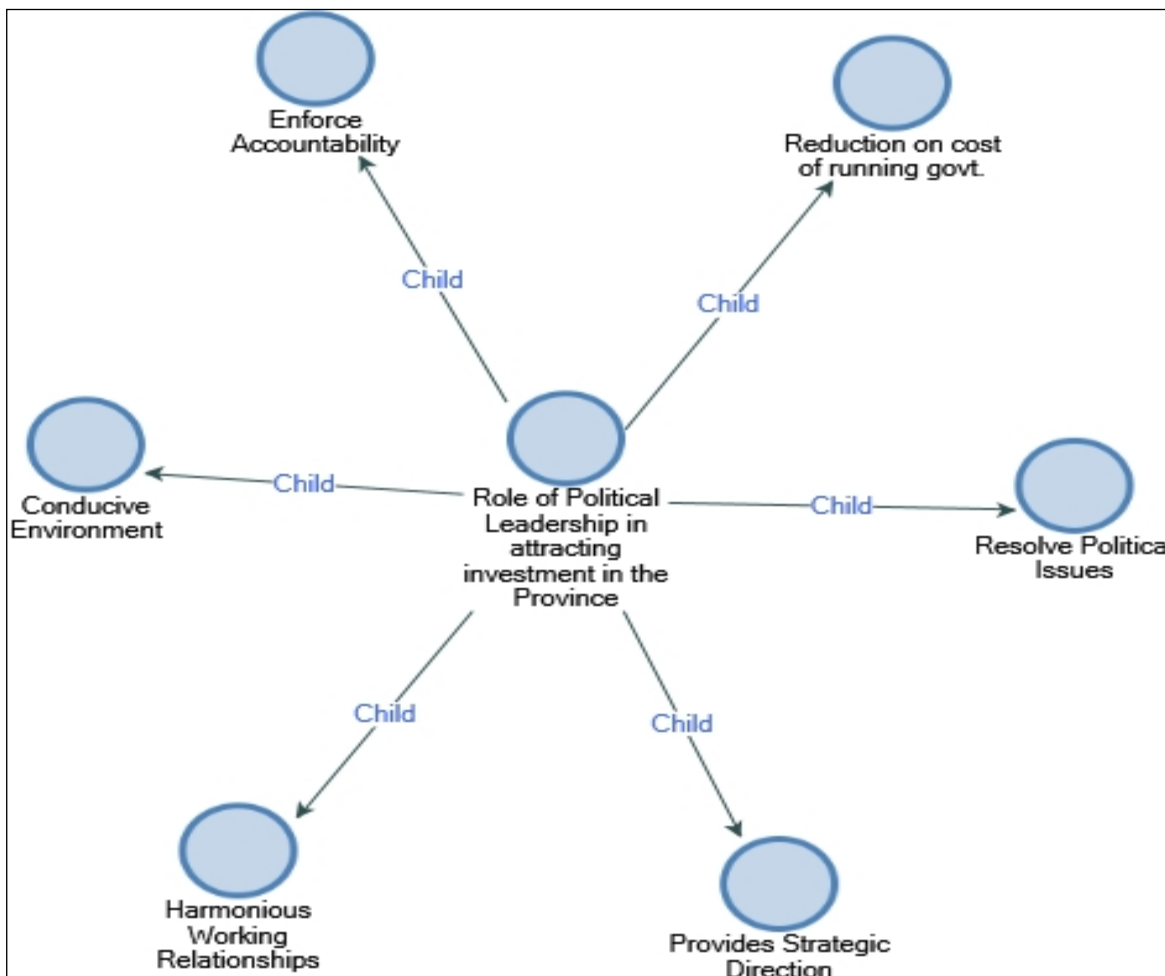


Figure 5-8: The role of political leadership

Better use should be made of political leadership in the hinterland to advance investment growth. The respondents added that leadership should be able to resolve

the political challenges that arise in municipalities, strengthen political accountability and provide strategic direction for the province.

Additional Questions:

Which sectors must the province concentrate on to boost investment?

While the respondents cited the sectors listed in figure 5-9, they noted that the primary sector (agriculture) could be a game changer for the province. The EC's competitive advantage is its abundance of arable land and it should invest in this opportunity. The respondents also agreed that the auto sector should be expanded. The tertiary sector, ICT and the marine economy also featured.

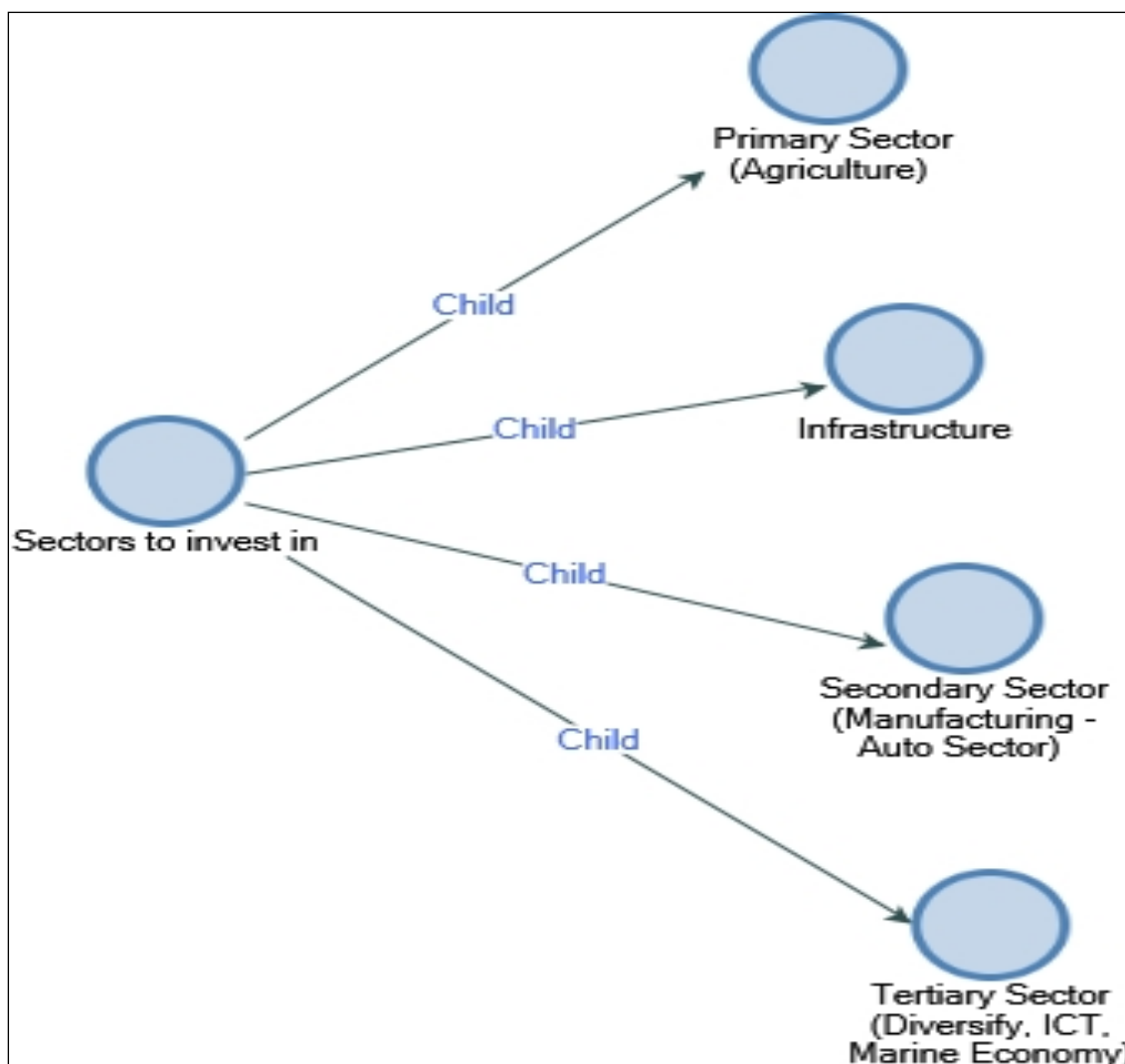


Figure 5-9: Investment areas

The primary sector presents many opportunities that will lead to investment in agro-processing, especially in the light of plans to establish Special Economic Zones (SEZs) in identified corridors in Mthatha, Queenstown and Butterworth. The EC should be the food basket of the country.

Investment in agriculture could transform subsistence production into commercial production, leading to improved incomes (Coega, 2015). According to the Eastern Cape Economic Development Department and Treasury (2014), “The low levels of primary sector production are not ideal for a developing economy and indicate a need to pursue agricultural support programmes.”

Agriculture is touted as the game changer in the province, although the department and the province have not shaped a vision and business plan for this sector. Responded 22 noted that, “The apartheid government paid for agriculture as a way of controlling farmers and independent states.” Worldwide, agriculture has been central to sustained economic growth, poverty reduction, structural change and job creation (Sender, 2016). The agricultural sector’s economic contribution to the EC is minimal; figure 5-10 below shows that the secondary sector is dominant.

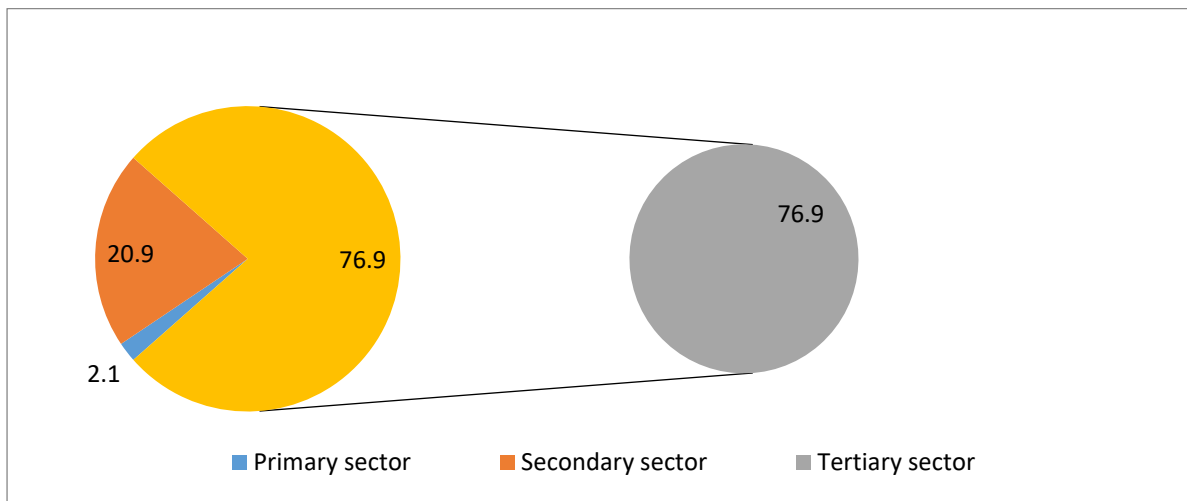


Figure 5-10: Dominant Economic Sectors in the Eastern Cape

Source adapted from Quantec 2013

The secondary sector is dominated by the auto industry that currently contributes 20.9% of the EC’s GDP. The Beijing Automobile International Corporation’s (BAIC)

historic investment of R11 billion in the Coega IDZ will certainly expand the province's secondary sector and give it a strong competitive edge in the automotive industry (Pele, 2016). The respondents suggested that banks should invest more in the auto-sector and in manufacturing and agro-processing. Manufacturing in the NMBM and BCMM, where most jobs are created, needs to be expanded to district municipalities. The province also needs to invest more in infrastructure, construction of roads, and building schools, hospitals and factories.

Durban and Cape Town harbours dominate the marine industry in SA and the EC needs to invest in its ports to grow this sector. The Second Annual Maritime Summit in East London illustrated that the province has yet to come up with concrete plans to attract investors to this sector.

Tertiary sector: the finance and business services sector and general government services contribute 30% and 28%, respectively to the EC's GDP. This points to heavy reliance on public investment and services (Eastern Cape Economic Development & Treasury, 2014). The province is endowed with a rich natural and cultural heritage but has been unable to compete with other provinces for domestic and international tourists (Eastern Cape Economic Development & Treasury, 2014). It needs to step up its efforts to expand tourism, the retail and trade sector, ICT and the knowledge economy in collaboration with tertiary education institutions.

What is the role of chiefs in promoting investment?

All the respondents agreed that the role of chiefs is not clear and that there is a need to separate administrative and traditional powers (see figure 5-11). These results are similar to those from the quantitative research questionnaire that confirmed that chiefs should be part of efforts to attract investment to the province.

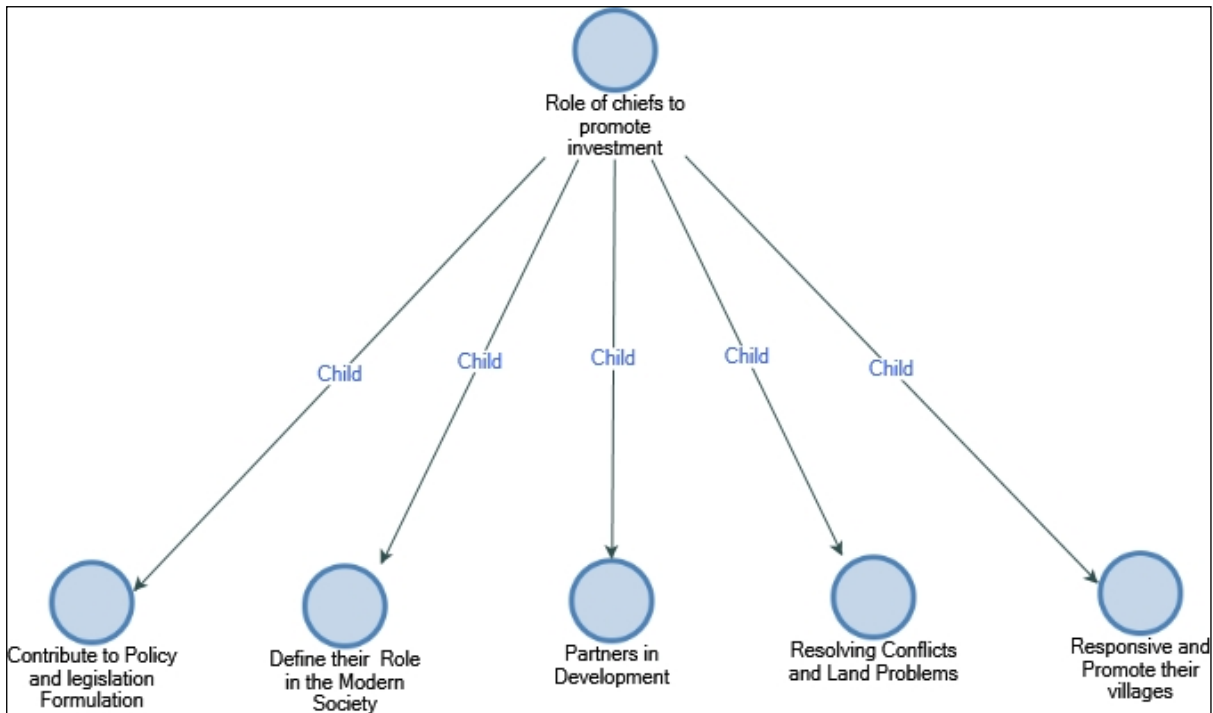


Figure 5-11: Role of chiefs

It was stated that chiefs do not understand their role and lack the necessary skills to manage and promote economic matters. This might be due to administrative and governance issues. There are strong tensions between councillors and kings and chiefs. Some community members are of the view that chieftainship should be abolished as it vests too much power in one person. In some communities, there are disputes among chiefs. The respondents claimed that the kings and chiefs are greedy and that chiefs are regarded as being opposed to development and should not be part of political party factions. Having chiefs sit on municipal councils has not yielded results as they are just observers rather than decision makers. The respondents were of the view that lessons could be learnt from the Tswana Lekgothla system that is used in Botswana and North West Province.

The interviewees added that chiefs are excluded and are excluding themselves from the development agenda. They are silent even on land policy and land issues as they exist under the patronage of the government and the ANC. There are serious structural challenges in traditional leadership through SA although Zulu traditional leaders seem to be benefiting. Chiefs should be the real voice of their communities. Development

practitioners noted that it is difficult to conduct stakeholder consultations with chiefs and concluded that they are often an obstacle to development.

ECCOGTA (2016) states that, “The COGTA strategic focus is to build an effective and improving department; strengthen municipal institutional capacity to promote good governance and effective service delivery; have enabling viable, sustainable developmental municipalities that deliver basic services and to improve the developmental capacity of the traditional leadership institutions for rural development.” It is clear that this department is battling to develop the capacity of traditional leadership; the respondents noted that they did not have the skills required to make a meaningful contribution to development. It was also noted that, a third of the provincial budget is allocated to chiefs. Such negative assessments of chiefs led some respondents to suggest that they should be removed from COGTA.

It was also pointed out that some EC chiefs such as Chief Holomisa and Chief Nonkonyana are backbenchers in the national parliament. Chiefs are civil servants; it was alleged that they want government to do everything while government pays them. The strong tensions between chiefs and councillors in EC villages is a clear indication that the former’s role in government is unclear.

However, it was noted that some chiefs in the EC are development minded (for example, in Xhora and Chris Hani District Municipalities). The respondents were of the view that, chiefs should provide land and be part of development. People believe more in them than they do in councillors. They should use their power to convince their subjects to use their land more productively. Indeed, they should be leading agriculture in the province. Chiefs should also assist in dealing with crime in their communities.

Questions raised by the respondents included: do subjects or chiefs own the land? Are the chiefs custodians of the land or custodians on behalf of people? It is clear that the role of chiefs in modern society needs to be defined.

The Quad Helix Model

For many years, the emphasis has been on the triple helix model (collaboration between academia, and the public and private sectors) for innovation and business growth. However, this model is insufficient for long-run, sustainable innovation growth;

later studies thus include the role of civil society as a fourth helix (Etzkowitz, 2008; Leydesdorff, 2013).

Figure 5-12 below shows the interaction among the different stakeholders in the quad helix model.

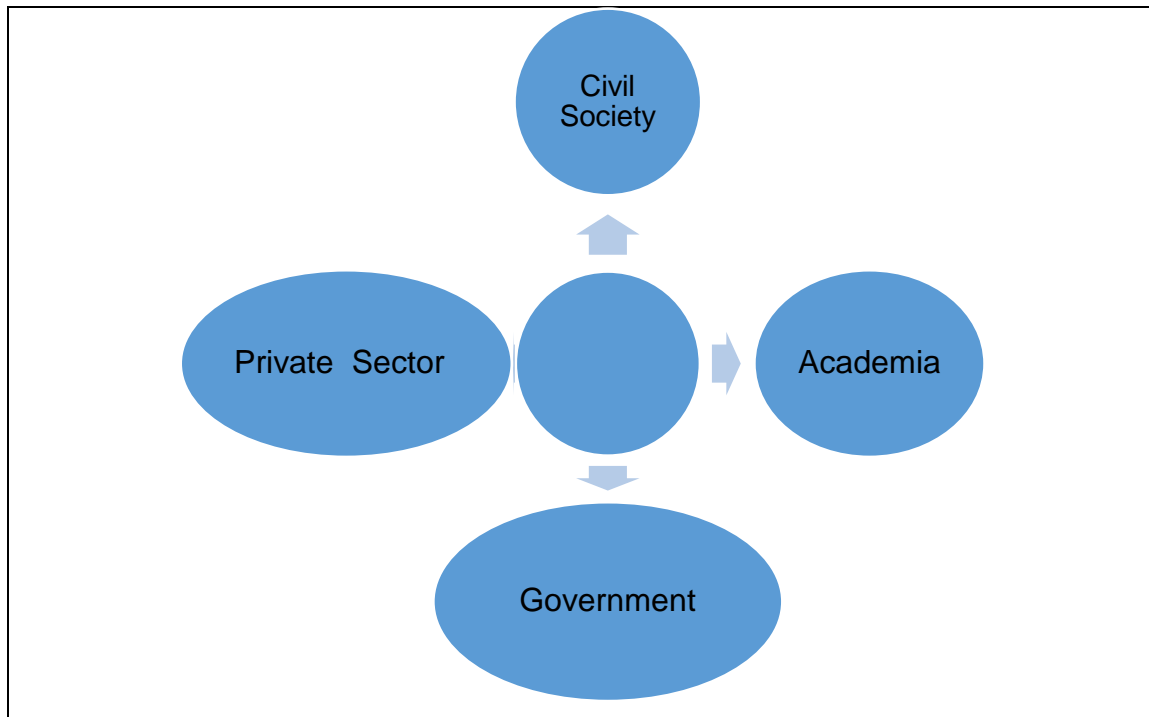


Figure 5-12: Quad helix

While interaction amongst the four helixes takes different shapes and forms, the underlying emphasis is stronger synergies for improved economic growth and development (Kimatu, 2016). Civil society includes church-based organisations, non-governmental organisations, chiefs and the community. It is highly regarded as a voice of reason for society, and has the potential to render development more human sensitive and take cognisance of the cultural context of communities. One of the biggest challenges in contemporary SA is the culture of entitlement and dependence on the government (*Daily Dispatch*, 2013). Rather than launching development initiatives, citizens are only visible during service delivery protests. Yet, their collaboration with academia and the public and private sectors is crucial.

What is the role of universities in attracting investment to the province?

All the respondents confirmed that EC universities currently play a minimal role in attracting investment to the province. There are no strong linkages between provincial departments and universities. Indeed, EC universities are fighting for relevance. Nelson Mandela Metropolitan University (NMMU) is a major role player in research and development (shale gas and the ocean economy), while Rhodes University plays a role outside the province (Geology). Walter Sisulu University (WSU) suffers a lack of human capital and a low graduation rate. The government procurement system makes it difficult to collaborate with these institutions; as a result, universities and government departments are not partners in development. Improved collaboration is required, especially in agriculture (indeed, some respondents indicated that such collaboration was better developed during the apartheid era). The respondents noted that universities are located in towns and that rural and surrounding communities do not feel their presence. While the Provincial Treasury announced plans to collaborate with universities more than six years ago, these have not come to fruition.

The respondents maintained that tertiary institutions need to make a more meaningful contribution to the provincial economy. Merging institutions (WSU) was not a well-calculated move as there is weak human and infrastructure development. Provinces such as the Western Cape have strong links with their tertiary institutions, with some academics serving on government advisory councils. A memorandum of understanding was signed between the NMBM metro and NMMU but it remains mainly on paper. The metro offers internships to Masters and PHD students, but this seems to be a one-way process that does not really promote economic development. Universities could also play a major role in arresting the decline of agriculture in the EC.

Figure 5-13 summarises the responses in relation to universities' role in promoting investment in the EC.

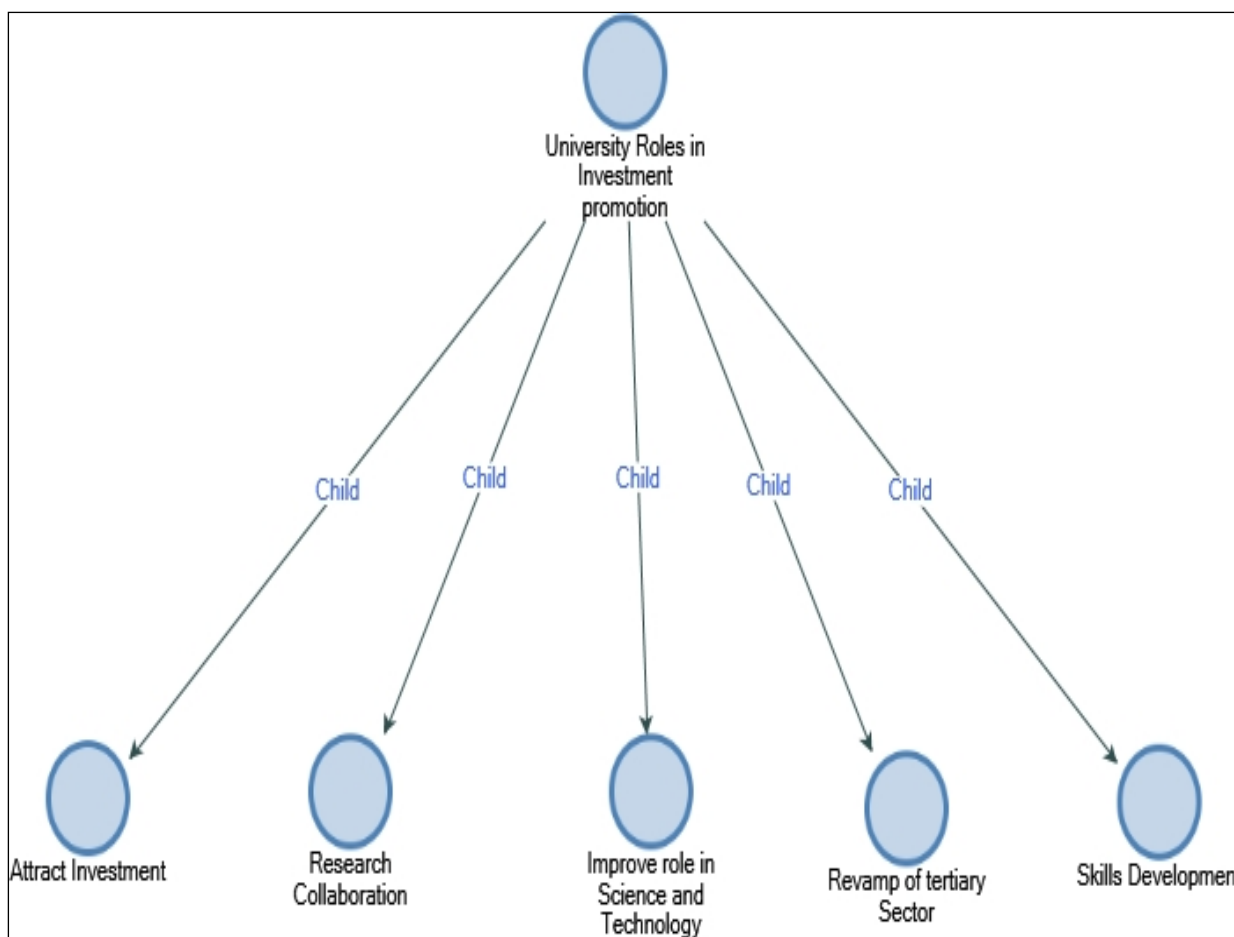


Figure 5-13: Role of universities

The graduates produced by provincial universities migrate to other provinces with better job prospects. Moreover, the EC's civil servants look to institutions in Gauteng to improve their qualifications; local institutions should be playing this role.

Tertiary institutions must nurture intellectual capital with a vision to solve problems

Systematic co-ordination between the provincial government and universities could lead to increased investment. It is important that universities be involved in the development agenda. These institutions are repositories of a wealth of information and could also provide the province with competent personnel. Provincial government should invest in universities to enable them to promote innovation and thus attract investors.

The triple helix model

The triple helix model emphasises the convergence of three stakeholders, academia, and the public and private sectors, to accelerate knowledge, and promote the transfer of technology and innovation that attracts the market and its stakeholders (Etzkowitz, 2008). The interaction between these stakeholders is illustrated in figure 5-14 below.

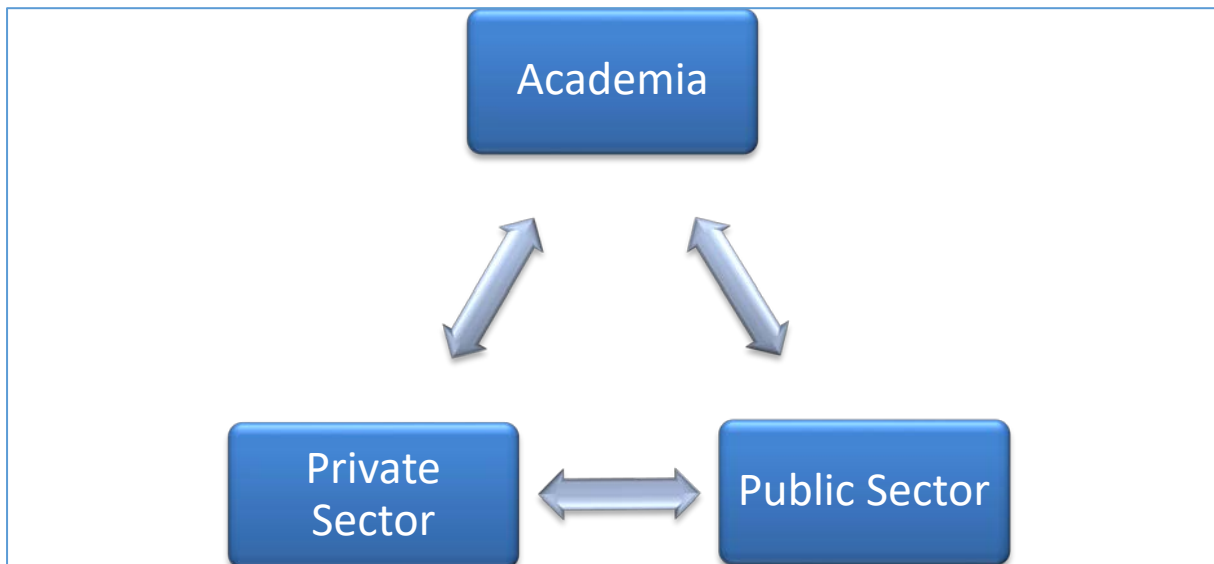


Figure 5-14: Triple helix

In the South African context, academic institutions should be part of business chambers and municipal councils as well as legislatures where decisions are made. For example, the EC government could work with the University of Fort Hare to establish a university town in Alice. A university or college town is a municipality where the university is the driving economic force for the greater population (Miller, 1963). It offers a bustling life inside and outside the university with its own culture, businesses of different kinds and much more, with a population dense with graduate degrees and significant economic spill offs (O'Mara, 2015).

Why are people with skills leaving the province?

All the respondents said that people with skills are seeking better opportunities and higher salaries as the province offers low packages. The serious lack of amenities in the province drives skilled people away and the rural nature of the province is not

attractive, especially to the youth. It is estimated that there are 10 times fewer job opportunities in the EC than in other provinces.

The respondents indicated that the EC government struggles to retain staff as it does not recognise their skills and expertise. The issues highlighted by the respondents are summarized in figure 5-14 below.

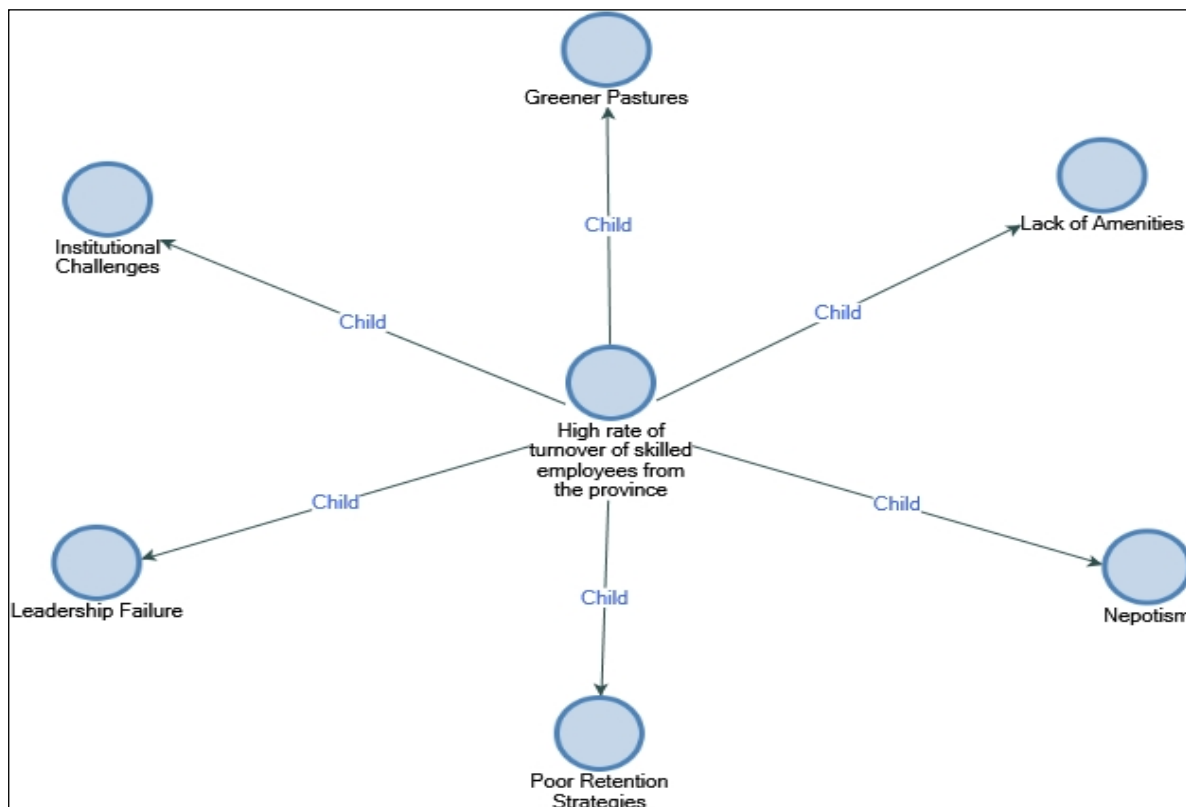


Figure 5-15: Migration of skilled people

The respondents noted that political issues, institutional and governance problems and municipal dynamics cause skilled employees to leave. It was alleged that appointments are made on the basis of political, friendship and family allegiances. Patronage is derailing progress. Furthermore, it was stated that political leadership suffocates skilled people in the province, as they are a threat to weak leadership.

Furthermore, unemployment in the EC stands at 29%, poverty rates at 53.6%, and economic growth at 1.1%. The EC only contributes 7.7% to national GDP. Bulk infrastructure backlogs, low growth in investment and increased out migration reflect an economy that is heavily reliant on community services, social grants, remittances

from migrants and retail trade (Eastern Cape Economic Development & Treasury, 2014).

5.2. STATE-OWNED ENTITIES AND AGENCIES IN THE EASTERN CAPE

South African SOEs have been abused as sources of income for individuals and for political connections. This has resulted in diminishing returns on investment. The EC's two IDZs are no exception to this rule. SOEs regard themselves as independent and stronger than government; indeed, they can be said to act as governments within government. There are generally poor relations between SOEs and other institutions and as such they are not effective instruments for the development of the province.

The EC needs new and strong economic agents that are capable of organising themselves collectively, taking up opportunities, employing more wage labour and establishing strong linkages with diverse institutions (Mike, 2013). The DEDEAT focuses on projects rather than development. There is little collaboration among the agencies in the province (ECDC, Ntinga, Aspire, and ECRDA) and they have now become political agencies. The general perception is that the DEDEAT and ECDC are dysfunctional due to institutional problems in the province. Agencies are dependants of government; they cannot stand on their own. The ECDC is a failed agency as far as investment and development are concerned. For their part, the provincial IDZs have cash flow problems.

As noted previously, there is no investment framework in the province. The ECDC and IDZs have piecemeal models that were characterised by the study respondents as extremely weak. The provincial budget allocation is low, which impacts on investment and this situation is exacerbated by wasteful and fruitless expenditure. The NMBM is facing budget cuts and is planning to invest less. Investors are not receiving value for money and there is thus little to attract investment.

The respondents noted that lack of collaboration between Roads and Public Works, the DEDEAT, Education, Health, COGTA and business chambers has resulted in low investment in the province as well as lack of investment champions. The ELIDZ and DEDEAT agencies are weak. Current policies are not investment focused and the

provincial investment incentive program is fuzzy. Respondents from NMBM pointed out that an initiative was launched to form a provincial investment council but it collapsed because politicians chaired it.

Provincial and Municipal Planning

The respondents also cited provincial planning as a factor hampering investment. The government planning system is based on the party political system. The ANC adopts a certain policy position and recommendations in its conferences and these become national priorities; the administration filters those to departments. Local municipalities formulate IDPs in consultation with communities. However, the priorities identified in the planning process do not necessarily reflect communities' needs. The IDP is drawn up by civil servants and adopted by the council, which is made up of councillors, chiefs and the mayor. In some instances, these individuals do not have the requisite skills to understand the IDP. The role of the council is to adopt bylaws, policies and IDPs, approve budgets and monitor and evaluate municipal administration; their role is thus of a technical nature. The respondents were of the opinion that municipalities lack skilled personnel to carry out these functions.

Respondents raised the following questions regarding provincial planning: is provincial planning different from local level planning? How many plans have been made in the last five years and how many have been implemented? It was observed that such plans are gathering dust due to internal party politics.

The role of municipalities is to create an environment conducive to economic development. The question posed by the respondents was: "what do municipalities stand for apart from poverty alleviation in the province?" They are not sustainable without government support. Each municipality has an LED unit. The LED framework was established in 2006 with the main aim of building shared understanding of sound LED practice and promoting improved implementation. The purpose of LED is to build the capacity of a local area to improve its economic prospects and residents' quality of life (Rodríguez-Pose, 2009).

In LED, the public, business and non-governmental sectors work collectively to create better conditions for economic growth and employment generation (Leigh and Blakely, 2013). The South African Local Government Association defines the role of LED as

providing a competitive local business environment, encouraging and supporting networking amongst the public/private and community sectors, facilitating the development and education of the workforce, and focusing on inward investment promotion to support cluster growth and a better quality of life.

Respondents noted that LED has failed to have a meaningful impact on the economic growth of municipalities. The national LED framework is old and for the past five years LED has operated without an economic development framework. They also highlighted that in municipalities, there are not job profiles for employees in LED units and many are political appointments. Furthermore, there is little coordination between these units and other departments/sections. LED is very weak in district municipalities. The respondents indicated that, currently, the LED has no framework, strategy, or defined responsibilities and it is project based. They alleged that civil servants that underperform are shifted to the LED unit. The disjuncture in the planning of government and municipalities especially in terms of LED reveals a lack of community of practice. Communities of practice are groups of people who share a concern or passion for something and learn how to do it better as a result of regular interaction (Farnsworth, Kleanthous, & Wenger-Trayner, 2016).

The respondents that were employed in the Department of Agriculture stated that it would take a hundred years for the department to deal with infrastructure backlogs. They added that the current model is unsustainable as it is 100% government based and does not impose responsibilities on beneficiaries. There is no return on investment in government infrastructure as in many instances it is vandalised. The identified estimated backlogs amounted to R16 billion. The department's current capital expenditure is between 6% and 7%, which is around R200 million of the provincial budget of R5 billion and additional grants which normally range around R5 million.

The optimum infrastructure target includes dams, fencing, sheds, and storage, and animal handling facilities, to name but a few. The department does not have an infrastructure model or framework. The private sector invests in its own infrastructure as a way to avoid paying high taxes on profit. Government procurement processes are not assisting as the state pays suppliers 25-30% more than the private sector would. This reduces the already low investment budget and the extent of infrastructure provision.

Contractors' capacity is very limited at times and there is insufficient consultation with farmers. The province is planning to resuscitate agricultural colleges, which had collapsed. Furthermore, there is poor collaboration with IDZs that have agro-processing units. Leadership of the department has at times been determined by political factors. The provincial departments are not target-based and both municipalities and government departments underspend budgets. The respondents cited poor planning, infrastructure, political and administrative leadership and skills. Although they are in one department, chiefs and local government work independently. Departments also rely heavily on consultants. Government grants are not increasing although the population is increasing and land claims remain a problem.

Other general responses/questions

The respondents indicated that the most pressing need in the EC is strong political leadership that is business orientated. The new SEZ legislation needs to be fast tracked. Provincial leaders must fully participate in and understand the IDZ approach. Political announcements should not be made without consulting administrators. The distance between the two metros is affecting their collaboration in terms of investment; instead of complementing each other, they are competing. Furthermore, the cluster reporting system is not effective as there is no follow-up. The lack of expertise in provincial SOEs and development agencies contributes to poor governance and thus poor performance. Finally, the lack of trust between the public and private sectors is still a serious conundrum in the province and SA as a whole.

5.3. CHAPTER SUMMARY

This chapter presented and discussed the qualitative findings from the in-depth interviews. NVIVO and content analysis were used to analyse the data. The 20 respondents included practitioners, experts, decision makers, and executives who are influential in drawing up investment budgets and making investment decisions. They were selected from government departments, metros, district municipalities, development agencies, banks, development finance institutions, SOEs and business formations. They thus offered expert insights into investment and economic growth in the province. Five additional interviews were conducted to clarify specific issues.

The interviews revealed a number of factors that are responsible for the low rate of investment in the EC. They include the fact that the provincial economy is small due to more than a century of marginalisation; land issues and weak administration and coordination. Some respondents indicated that the size of the EC makes it difficult to plan and coordinate development.

Another point highlighted was the lack of a strong vision on the part of the province and district municipalities. The EC has no clear development policy, agenda or investment strategy. Rural municipalities are at a huge disadvantage as there are no established economic hubs and corridors. The DEDEAT focuses on short-term projects rather than long-term development. The lack of co-ordination among agencies (ECDC, Ntinga, Aspire, and ECRDA) was noted as well as the fact that they are driven by political agendas. The respondents observed that there are poor relations between the OTP, government departments and municipalities. Like rural municipalities, agencies are dependants of government; they cannot stand on their own.

The ECDC was characterised by the respondents as a failed agency as far as investment development is concerned and the cash flow problem confronting the IDZs was highlighted. Lack of infrastructure was flagged as the key impediment to economic development in the province. It was also noted that municipalities are dysfunctional due to the conflation of administrative and political leadership. Political leadership is not providing the strategic leadership required and infighting is the order of the day. It was stated that approximately 90% of HODs and CEOs are politicians. Low expectations in departments has resulted in a culture of mediocrity. Furthermore, officials that are involved in corrupt practices are often not brought to book. Finally, provincial plans do not reflect citizens' needs.

Chapter 6 presents and discusses the econometrics results and analysis.

CHAPTER 6 ECONOMETRICS RESULTS AND ANALYSIS

This chapter presents and discusses the econometric results and analysis. Once the fieldwork was complete, econometrics analysis was conducted to calculate the investment gap in the EC and to forecast the required investment percentage for the suggested investment model (objective four).

Since the dawn of democracy in 1994, many structural changes have taken place in the South African economy. Economic growth rates doubled those of the apartheid era. However, deep-rooted structural economic problems remain unresolved (Saville, 2015).

In seeking solutions to these macro-economic challenges, SA decided a few years ago to embrace privatization with the aim of stimulating investment and improving capital formation. This is expected to lead to efficient allocation of economic resources and enhance productivity and aggregate supply. It is also expected that it will lead to a decline in unemployment and the inflation rate (Karim, 2010). The government has prescribed three measures to enhance capital formation: an improved savings rate; efficient financial institutes to manage the channelled funds and re-investment of savings in the production of capital goods (Jhinghan, 2003).

Capital formation is a prerequisite in enhancing physical capital stock in a given country with investment in economic and social infrastructure (Shuaib & Ndidi, 2015). Gross fixed capital formation can be categorized into gross public domestic investment and gross private domestic investment. Gross domestic investment corresponds to GFCF when net changes in the inventory level are added. On the other hand, gross public investment includes government investment as well as public enterprises. Capital formation leads to the production of tangible goods such machinery, tools and plant; and intangible goods which include scientific and qualitative research, health, and a high standard of education.

In light of SA's efforts to improve the structural foundation of GFCF, this chapter considers the EC's investment gap.

6.1. ECONOMETRICS THEORETICAL LITERATURE REVIEW

Econometrics is the branch of economics concerned with the use of mathematical methods (especially statistics) to describe economic systems. All research is based on philosophical assumptions that give it validity. This chapter explores extant theories to establish the investment pattern in an economy. The Harrod-Domar model argues that, stimulating investment could enhance economic growth. Hence, for a nation to invest in capital formation, it would save part of its resources from current consumption. The Harrod-Domar model built on the Keynesian classical model to explain how capital formation productivity and savings rates impact on economic growth. Capital formation plays a crucial role in the development of a country. The model argues that economic growth depends on two fundamental factors, the capital-output ratio and the percentage of national income saved in a given economy per annum; this is the savings ratio. According to this model output Y is a function of capital stock K such that:

$$Y = f(K) \quad (1)$$

From the model, the production function shows constant returns to scale, while the marginal product of capital is constant; hence, by necessary implication, there is equality between the marginality of capital and average products. This leads to equation (2)

$$\frac{dY}{dK} = C \Rightarrow \frac{dY}{dK} = \frac{Y}{K} \quad (2)$$

Since our argument is that capital is a necessary condition for output, then

$$f(0) = 0 \quad (3)$$

The product of the savings rate and output equals savings, leads to investment

$$sY = S = I \quad (4)$$

The state of the change in the stock of capital equals investment minus depreciation of the stock of capital; hence, we have equation (5)

$$\Delta K = I - \delta K \quad (5)$$

Here the study attempts to derive a model where investment can lead to the output growth rate:

$$c = \frac{dY}{dK} \frac{Y(t+1) - Y(t)}{K(t) + sY(t) - \delta K(t) - K(t)} \quad (6)$$

$$c = \frac{Y(t+1) - Y(t)}{sY(t) - \delta \frac{dK}{dY} Y(t)} \quad (7)$$

$$c \left(sY(t) - \delta \frac{dK}{dY} Y(t) \right) = Y(t+1) - Y(t) \quad (8)$$

$$cY(t) \left(s - \delta \frac{dK}{dY} \right) = Y(t+1) - Y(t) \quad (9)$$

$$cs - c\delta \frac{dK}{dY} = \frac{Y(t+1) - Y(t)}{Y(t)} \quad (10)$$

$$s \frac{dK}{dY} - \delta \frac{dY}{dK} \frac{dK}{dY} = \frac{Y(t+1) - Y(t)}{Y(t)} \quad (11)$$

$$cs - c\delta = \frac{dY}{Y} \quad (12)$$

Harrod and Domar were concerned with the role of investment as a component of aggregate demand and capital accumulation; hence, the derivation of the incorporated model as a simple accelerating investment function based on expected real income.

The economic concept of the acceleration principle offers an explanation of the link between capital investment and output. This theory argues that a decrease or an increase in demand for consumer goods will lead to a greater decrease or increase in demand for the equipment required to produce such goods. Devoting a portion of immediate consumption is known as savings. (Bakare, 2011) states that in order for an economy to replace worn-out capital goods, a proportion of national income must be saved. (Ncanywa & Makhenyane, 2016; T. Pettinger, 2014.) postulated that an

increased savings ratio could be inappropriate when a country's citizens face food insecurity; increasing the savings ratio could thus be difficult in developing countries. The cost of capital is endorsed by the Tobin Q investment theory published in 1968, which states that investments would still be made if the market value is not equal to the book value (Kanu, Ozurumba, & Anyanwu, 2014). In the marginal efficiency of capital hypothesis, the level of investment is determined by the value of capital compared to the interest rate (Kanu et al., 2014). If the marginal rate of capital is lower than the interest rate, this would discourage investment. The rate of return over cost and the interest rate determine the level of investment in any direction (Fisher, 1930).

6.1.1. EMPIRICAL LITERATURE

The literature on investment activities was reviewed. In SA, (Fedderke, 2006) found that the connection between economic infrastructure and economic growth appears to run in both directions. Low levels of investment in infrastructure could stymie opportunities for economic growth. Kumo (2012) used Granger Causality analysis to show that a strong connection exists between economic infrastructure investment and GDP growth. (Nowbutsing, 2012) investigated whether FDI matters in capital formation and economic growth in Mauritius using the bounds testing method. The study found that, in the long run, FDI has a positive and significant effect and that a percentage increase in FDI contributes 0.17% economic growth in Mauritius.

(Rajni, 2013) used time series techniques to establish bi- or uni-directional causality among imports, exports, and capital formation in India for the period 1991 to 2010. The findings indicate the existence of bidirectional causality between export growth and gross domestic capital formation. The test for conventional Granger causality also suggests the existence of uni-directional causality among imports, capital formation and exports (Kanu et al., 2014) examined the effects of capital formation on economic growth in Nigeria using multiple regression in the estimating techniques. The variables included economic growth, GFCF, total exports, total savings, total imports, and inflation. The study concluded that GFCF does not have a significant short-run impact on economic growth. However, the vector auto regressive (VAR) model showed that, the lagged values of GDP and total exports positively impacted on the long run nexus with Nigerian economic growth. Bakare (2011) investigated the nexus between economic growth and capital formation in Nigeria using the Harrod-Domar model.

Ordinary least square (OLS) was adopted to analyse the model. The study found that national income is positively related to savings and capital formation.

(Torbira & Ogbulu, 2014) investigated the relationship between GFCF and fund mobilization by insurance companies in Nigeria, particularly how GFCF responded to stimuli from this sector. A multivariate regression model with five variable regressors was adopted. The short run results showed that the four independent variables, namely, accidents, premiums from fire, employee liabilities insurance policies and motor vehicles impacted positively but insignificantly on GFCF whereas marine insurance policies' premiums had a negative and insignificant impact. However, in the long run, the fund mobilization variables of the insurance companies had a positive and significant impact on GFCF. No evidence was provided by the Granger causality test on causality among the variables.

(Kanu et al., 2014) investigated the effects of GFCF on economic growth in Nigeria. Multiple regression analysis showed that GFCF does not have a significant short run impact, while the VAR model estimates show that total exports, GFCF, and the GDP lagged values had long run positive relationships with economic growth. Furthermore, there is an inverse relationship between Total National Savings (TNSV), imports (IMP), and economic growth and a unidirectional causal relationship between GDP and exports (EXP), IMP, GFCF, and TNSV. (Iacovou, Kaminska, & Levy, 2012) study focused on investment activities' impact on employment in Romania. The variables were net investment, capital investment, unemployment, investment rates, and economic crisis. The results point to a significant decline in net investment due to the global economic crisis, resulting in higher unemployment. (Bader & Malawi, 2010) study employed the Granger causality test, impulse response functions and the decomposition of variance and found a relationship between GFCF and economic performance in Algeria. (Bader & Malawi, 2010) reiterated the impact of Jordan's real interest rate on the general investment level. They also noted that the results concurred with theories of economic growth, showcasing that real interest rates could impact negatively on investment (Bader and Malawi, 2010). (Karim, 2010) examined the links between household consumption, fixed investment and economic growth in Malaysia using the structural vector error correction model (VCEM). The results showed that fixed investment and household consumption significantly impact on the

country's economic growth. Demand side policies were found to impact on household consumption and investment was not sufficient to boost long run economic growth. In conclusion, (Karim, 2010) argued that for Malaysia, fixed investments would only be significant in the short run.

(Akinola & Omolade, 2013) examined the nexus among GFCF, savings, and economic growth in Nigeria between 1975 and 2008. The study employed co-integration and VECM in the estimating technique with special interest in the Vector Auto Regressive causality test. The results indicate the presence of a long run relationship among the three variables. This was revealed by the co-integration regressions, which were characterized by a positive coefficient from all parameter estimates, high R square, and the significance of F values from all three model equations. The VCEM corroborated the strong linkage among the three variables; it identified GDP as having a stronger influence on both GCF and GNS than GCF and GNS' effects on GDP. Again, the causality test validates the possibility of a symbiotic relationship among GDP and GNS, GDP and GCF, and GNS and GCF as they all displayed bidirectional causality. If applied during policy implementation, these findings would bring about change in the development of the real sector of the economy.

6.2. METHODOLOGY

Statistics South Africa (StatsSA) notes that the EC contributes 7.5% of SA's GFCF. This study employs the augmented Cobb-Douglas Production Function (CPF) to examine the EC and other provinces' contribution to GFCF in the country due to its elasticity behaviour and its ability to handle output-input relationships (Bowles, 1970); (Cocchi, 2012). Its expression is given as:

$$Y_t = AK_t^\alpha L_t^\gamma \tag{i}$$

The CPF model exhibits $\gamma + \alpha = 1$ as a constant returns to scale. It indicates the principle that when inputs of capital (K_t) and labour (L_t) are doubled, output (Y_t) also doubles. In some sense, if $\gamma + \alpha > 1$, it expresses increasing returns to scale while $\gamma + \alpha < 1$ indicates the law of diminishing returns to scale.

However, to express equation (i) in a linear form, the equation has to be in the same base. The equivalent model when naturally logged produces equation (ii)

$$\log(Y_t) = q_0 + \log(A_t) + \gamma \log(K_t) + \alpha \log(L_t) + U_{it} \dots \dots \dots (ii)$$

Where Y_t, K_t and L_t are output, capital and labour, respectively. q_0 represents a constant term.

For the purpose of this study, an equivalent of the model in the log form appears for South African GFCF (SAGF):

Where:

$$SAGF = f(ECGF_t + NWGF_t + NCGF_t + FSGF_t + \mu_t) \tag{iii}$$

In this study, it is assumed that SAGF is a function of GFCF for the Eastern Cape (ECGF), North West (NWGF), Northern Cape (NCGF) and Free State (FSGF) over time. Having conducted a brief analysis of all nine provinces, the study is restricted to these four provinces.

When equation (iii) is introduced into the original CPF function, it takes an elasticity CPF form giving equation (iv) as follows:

$$SAGF_t = (ECGF_t^{\alpha_1} + NWGF_t^{\alpha_2} + NCGF_t^{\alpha_3} + FSGF_t^{\alpha_4}) \tag{iv}$$

Equation (iv) above indicates the South African model for GFCF and the provinces used in this study. The equation is further simplified to exhibit the output and input nexus; hence, the linear functional form equation is expressed as follows:

$$SAGF_t = \alpha_0 + \alpha_1 ECGF_t + \alpha_2 NWGF_t + \alpha_3 NCGF_t + \alpha_4 FSGF_t + \mu_t \quad (v)$$

The study's model is dynamic in nature as the variables for GFCF are consistent. It is hence argued that the previous year's GFCF is sufficient to predict GFCF in the current year (Chowdhury, 2016). Therefore, the lagged value for GFCF is added to the right side together with the independent variables to explain GFCF for the current year in SA.

Thus, the dynamic form of equation (v) is explicitly given as equation (vi)

$$SAGF_t = \alpha_0 + \alpha_1 SAGF_{t-1} + \alpha_2 ECGF_t + \alpha_3 NWGF_t + \alpha_4 NCGF_t + \alpha_5 FSGF_t + \mu_t \quad (vi)$$

Where; $GFCF_t$ and $GFCF_{t-1}$ are used to proxy the current and previous year's GFCF in the South African economy, respectively; α_0 is the constant term; $ECGF_t$ is the gross fixed capital formation for Eastern Cape, $NWGF_t$ is the gross fixed capital formation for North West, $NEGF_t$ captures the gross fixed capital formation for Northern Cape; $FSGF_t$ is the gross fixed capital formation for Free State; U_t is the composite random error term and t indicates the annual time period.

6.2.1. DATA SOURCES

All the data used in this study are from the Quantec database (Quantec, 2012; 2016; StatsSA, 2015; Faulkner, 2013). The choice of variables in this study is based on the relevant literature including reports, publications and quarterly bulletins.

6.2.2. ESTIMATING TECHNIQUE

Time series Auto Regressive Distributed Lag (ARDL) or Bound Testing was developed and introduced by (Pesaran, Shin, & Smith, 2001). To achieve its objectives, this study employed this estimating technique to analyse the co-integrating nexus among the explanatory variables. Time series ARDL was adopted due to its flexibility as there are no restrictions on the possibility of variables to be integrated of the same order. The technique is applicable to variables integrated at both order I (1) I and (0).

(Pesaran et al., 2001) argue that, ARDL offers dependable and consistent estimates of long run coefficients provided they are normally distributed asymptotically irrespective of their integration order of either I(1) or I(0).

Despite possible endogeneity, the ARDL model offers reliable coefficients since it adopts the lags of outcome and independent variables (Pesaran et al., 2001). Furthermore, the problem of pre-testing which is a common issue in conventional cointegration analysis is controlled through the adoption of ARDL (Akinlo, 2008; Sharifi-Renani, 2007).

The Model in ARDL format:

$$\Delta SAGF_t = c_0 + \sum_{j=1}^n \beta_{1j} \Delta SAGF_{t-j} + \sum_{j=1}^n \beta_{2j} \Delta ECGF_{t-j} + \sum_{j=1}^n \beta_{3j} \Delta NWGF_{t-j} + \sum_{j=1}^n \beta_{4j} \Delta NCGF_{t-j} + \sum_{j=1}^n \beta_{5j} \Delta FSGF_{t-j} + \sigma_1 SAGF_{t-1} + \sigma_2 ECGF_{t-1} + \sigma_3 NWGF_{t-1} + \sigma_4 NCGF_{t-1} + \sigma_5 FSGF_{t-1} + U_t \dots \dots \dots \text{vii}$$

Where j represents the number of lags, Δ is the first difference operator; c_0 represents the model constant term n is the maximum or optimal lag length. $\beta_{1j} - \beta_{6j}$ are the short run coefficients of the respective explanatory variables while U_t is the stochastic / composite error term. $\sigma_1 - \sigma_6$ represents the long run coefficients. The regression analysis involves three stages: (i) Adopt the ARDL model in equation (vii) to estimate the ordinary least square from the ARDL environment. (ii) Examine the long run relationship through the application of bound testing and the adoption of the null hypothesis, such that: $H_0 : \sigma_1 = \sigma_2 = \sigma_3 = \sigma_4 = \sigma_5 = \sigma_6 = 0$ and

the alternate hypothesis; $H_1 : \sigma_1 \neq \sigma_2 \neq \sigma_3 \neq \sigma_4 \neq \sigma_5 \neq \sigma_6 \neq 0$.

The bound test uses F-statistics with nonstandard distribution. Therefore, (Pesaran et al., 2001) set up two sets of critical values for given significance levels (1%, 5% and 10%). The first set of values assumes that all variables are stationary at level I(0), and the other set assumes that all variables are stationary at first differencing I(1). On this note, if the calculated F-statistic is higher than the upper bounds value as stated in the Pesaran critical bounds table, the null hypothesis of no cointegration is rejected. On the other hand, it is accepted if the calculated F-statistic is smaller than the lower

bounds value. The test becomes indecisive and unrealistic if the calculated F-statistic lies between the lower and upper critical values. To check the reliability of our estimation, the serial correlation and recursive CUSUM test is conducted at 5% level of significance.

Regression analysis of South Africa GFCF as Dependent Variables with series Eastern Cape, North West, Mpumalanga and Free State.

Table 6-1: Results of Summary Statistics

	LOGSA	LOGNW	LOGEC	LOGMPU	LOGFS
Mean	14.92206	12.14433	12.32227	12.40381	12.05690
Median	14.87027	12.07856	12.27621	12.33377	11.98180
Maximum	15.17078	12.39366	12.50923	12.67493	12.32410
Minimum	14.74681	12.01063	12.20918	12.24265	11.93641
Std. Dev.	0.143402	0.143593	0.107749	0.139765	0.138809
Skewness	0.477881	0.592982	0.520580	0.752386	0.750318
Kurtosis	1.718719	1.714093	1.661166	2.066808	1.974017
Jarque-Bera	2.129302	2.550055	2.397078	2.612656	2.753793
Probability	0.344848	0.279423	0.301635	0.270813	0.252360
Sum	298.4413	242.8866	246.4454	248.0762	241.1380
Sum Sq. Dev.	0.390721	0.391759	0.220587	0.371151	0.366090
Observations	20	20	20	20	20

Source: constructed by the author

Table 6-1 above shows the summary statistics of the variables employed in this study. The mean result is given in the second row, as it is a germane tool in the measure of central tendencies in statistics. Rows three and four record the maximum and minimum values in the study's variables while the results from standard deviation are reported in row five. In the case of South African GFCF, which is our dependent variable, we note that the maximum exhibits the value 15.17, and the minimum is 14.75. The results show that the data are closer to the minimum than the maximum since the mean is 14.92. This finding is strongly supported by standard deviation, which indicates that there is no fundamental difference in the results as the value of standard is only 0.14, meaning that it is closer to the mean.

Again, it is noted that the results for all the explanatory variables, namely, Log of MPU, EC, NW and NC respectively, follow a similar minimum trend to South African GFCF. For instance, the log of GFCF for the EC is a maximum of 12.509, whereas the minimum is 12.20918 and its mean value is 12.32227. The mean is thus closer to the

minimum than the maximum. Hence, we conclude that GFCF in the EC makes a low contribution relative to the South African GFCF.

Table 6-2: Results of Correlation Matrix

	LOGSA	LOGNW	LOGMPU	LOGFS	LOGEC
LOGSA	1.000000	0.993862	0.989514	0.983051	0.997635
LOGNW	0.993862	1.000000	0.989868	0.995007	0.997873
LOGMPU	0.989514	0.989868	1.000000	0.991264	0.988014
LOGFS	0.983051	0.995007	0.991264	1.000000	0.990043
LOGEC	0.997635	0.997873	0.988014	0.990043	1.000000

Source: constructed by the author

This section reports on the results of the correlation coefficient on the series Log of MPU, EC, NW and NC with South African GFCF, which is our dependent variable. The results reveal a positive association among all the variables, particularly between South African GFCF and the explanatory variables. There is strong indication of correlation among all the variables, meaning that an increase in one variable affects another. Multi-collinearity in this model poses no problem to the data as it only indicates that all the provinces under investigation reflect common factors, which impact on the growth of South African GFCF.

Table 6-3: Unit Root Test

Provinces	Augmented Dickey Fuller		Phillip Perron		KPSS	
	Sig. Lev.	P-Value	Sig. Lev.	P-Value	Sig. Lev.	P-Value
Eastern Cape	I(1)	0.0033	I(0)	0.0564	I(0)	0.0000
South Africa	I(1)	0.0087	I(0)	0.0739	I(0)	0.0000
North West	I(0)	0.0100	I(0)	0.0139	I(0)	0.0000
NC	I(0)	0.0104	I(0)	0.0372	I(0)	0.0000
Free State	I(0)	0.0042	I(0)	0.0481	I(0)	0.0000
MPU	I(0)	0.0086			I(0)	0.0000
South Africa	I(1)	0.0619				

Source: constructed by the author

Table 6-3 shows the unit root results for all the variables adopted in our study. The results reveal a mixture of I(0) and I(1) for all variables in our data. Hence the constraints in the adoption of time series ARDL as our estimating technique, since it can incorporate the mixture of I(1) and I(0) in a regression model.

Table 6-4 details the ordinary least square results.

Table 6-4: Ordinary Least Square Results on the series Log of SA GFCF on the Log of MPU, EC, NW and NE

Dependent Variable: LOGSA			R-squared	0.999998
Method: ARDL		Prob (F-statistic)	0.000000	
Dynamic regressors (1 lag, automatic): LOGMPU LOGFS LOGEC LOGNW				
Selected Model: ARDL(1, 0, 1, 1, 1)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LOGSA(-1)	0.670243	0.021263	31.52136	0.0000
LOGMPU	0.097949	0.016563	5.913762	0.0001
LOGFS	0.202640	0.050879	3.982807	0.0026
LOGFS(-1)	-0.279875	0.038345	-7.298857	0.0000
LOGEC	0.692524	0.046385	14.92991	0.0000
LOGEC(-1)	-0.343597	0.046895	-7.326933	0.0000
LOGNW	0.080097	0.033095	2.420199	0.0360
LOGNW(-1)	-0.050922	0.032260	-1.578467	0.1455
C	-0.013591	0.080540	-0.168748	0.8694

Source: constructed by the author

Table 6-5 below presents the long- and short-run analysis results.

Table 6-5: Long- and Short-run Analysis Results on the series Log of SA GFCF on the Log of MPU, EC, NW and NC

ARDL Cointegrating And Long Run Form				
Dependent Variable: LOGSA				
Selected Model: ARDL(1, 0, 1, 1, 1)				
Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LOGMPU)	0.096382	0.012885	7.480392	0.0000
D(LOGFS)	0.205173	0.022620	9.070239	0.0000
D(LOGEC)	0.691010	0.019281	35.839413	0.0000
D(LOGNW)	0.080005	0.010501	7.618547	0.0000
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGMPU	0.297033	0.034988	8.489502	0.0000
LOGFS	-0.234218	0.068117	-3.438442	0.0063
LOGEC	1.058133	0.078353	13.504634	0.0000
LOGNW	0.088473	0.063951	1.383441	0.1966
C	-0.041215	0.243248	-0.169437	0.8688
Cointeq = LOGSA - (0.2970*LOGMPU -0.2342*LOGFS + 1.0581*LOGEC +				
0.0885*LOGNW -0.0412)				

Source: constructed by the author

This section presents the time series ARDL results on the South African GFCF regression analysis. The Log of MPU, EC, NW and NC were regressed against the South African GFCF.

From the short-run results, all the variables are statistically significant at 1% level of significance and are positively related to South African GFCF. However, of great importance is the log of EC GFCF as the result indicates that a 1% change in EC GFCF would contribute a 69.10% increase in the South African GFCF.

Again, for the long run regression results, all the explanatory variables are statistically significant except GFCF for North West province. Hence, North West province's GFCF does not impart on South African GFCF. Again, there is an inverse relationship between South African GFCF and that of Free State. A 1% increase in the GFCF for Free State would cause South African GFCF to decline by 23.42% whereas, for EC, the reverse is the case as a 1% increase in the EC Cape GFCF would, all things being equal, cause a remarkable increase in South African GFCF of 104%.

Time Series Error Correction Model on the series Log of SA GFCF on the Log of MPU, EC, NW and NC

Table 6-6: Error Correction Coefficient

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Ect(-1)	-0.0330941	0.010518	-31.465209	0.0000

Source: constructed by the author

The short- and long-run dynamic results in this study's model are examined through the adoption of the Error Correction Term (ECT). The coefficient of the ECT indicates how slowly or quickly the variables under examination tend to revert to the equilibrium state (for example, their speed of adjustment). As seen in table 6.6, the sign of the negative coefficient in the ECT shows that there was disequilibrium in the system at an earlier stage; however, the process of adjustment is in the right direction. The value -0.0330941 (3.3%) of ECT depicts the speed of adjustment moving from the short run deviation to the long run equilibrium and the possibility of improvement in South African GFCF. In addition, the ECT, which is significant statistically at 1%, clearly shows that, in the long run, equilibrium is obtainable. This result supports the finding that when the error correction model is strongly significant, this is an indication of a

stable long run relationship, and the steady-state or speed of convergence in the system is predictable.

Determination of Lag Selection Criteria on the series Log of SA GFCF on the Log of MPU, EC, NW and NC

Table 6-7: Determination of Lag Selection Criteria on the series Log of SA GFCF on the Log of MPU, EC, NW and NC

Lag	LogL	LR	FPE	AIC	SC	HQ
0	276.1381	NA	2.77e-19	-28.54085	-28.29231	-28.49879
1	486.3473	287.6547*	1.06e-27*	-48.03655*	-46.54533*	-47.78418*

* indicates lag order selected by the criterion

Source: constructed by the author

The Time ARDL Lag Determination

The time series-ARDL model estimates the regressions separately to obtain the optimal lag length for GFCF of the provinces under investigation. The orders of lags are selected using the final prediction error (FPE), sequential modified LR test statistics (LR), Akaike Information Criterion (AIC), Hannan-Quinn information criterion, and Schwarz Bayesian Criterion (SBC). These methods of selection are used for both for time series and panel estimation. Based on the advantage of the time series ARDL model that different variables can be assigned different lags as they enter the model, this study tests for various lags' lengths' selection criteria. The results reveal that lag 1 would be preferred as indicated by LR, FPE, AIC, SC and HQ; thus, lag 1 is selected for the method of estimation in time series ARDL which forms the optimal lag length in this study. Table 6-7 explains the Criteria Graph on the series Log of SA GFCF on the Log of MPU, EC, NW and NC.

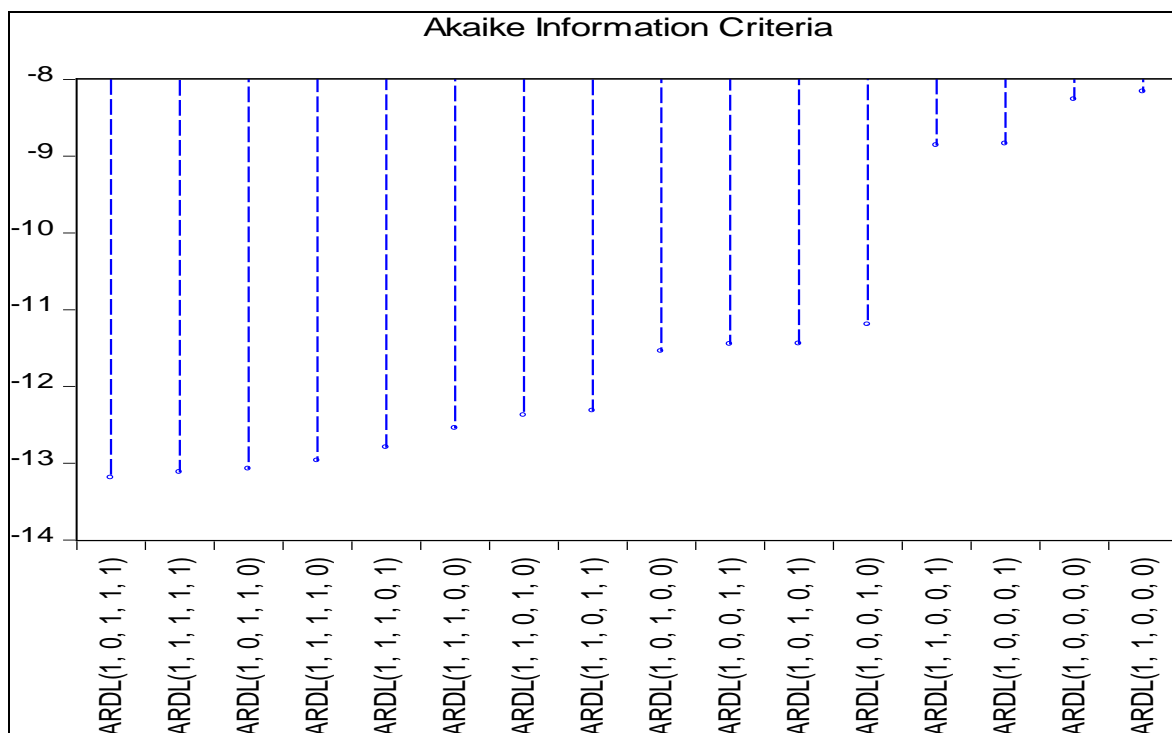


Figure 6-1: Akaike Information Criterion (AIC)

Source: constructed by the author

Measuring the Strength of the P-ARDL Regression Model

To establish the strength of the AIC model selection summary over other models (the Schwarz criterion and Hannan-Quinn criterion) as engaged in our time series ARDL regression model, and to further establish the long and short run relationships in the study model, we employed a criteria graph to examine the top 16 different time series ARDL models. The common rule of thumb in the literature on model benchmark analysis indicates that, a lesser value of AIC performs better and is mostly preferred in any given model. It is evident from figure 6.1 above that the first time series ARDL (1, 0, 1,1,1) with the value of -14.8 in the model shows that it is the most expected model as it offers the lowest value of the AIC.

Test for Normality on the series Log of SA GFCF on the Log of MPU, EC, NW and NE

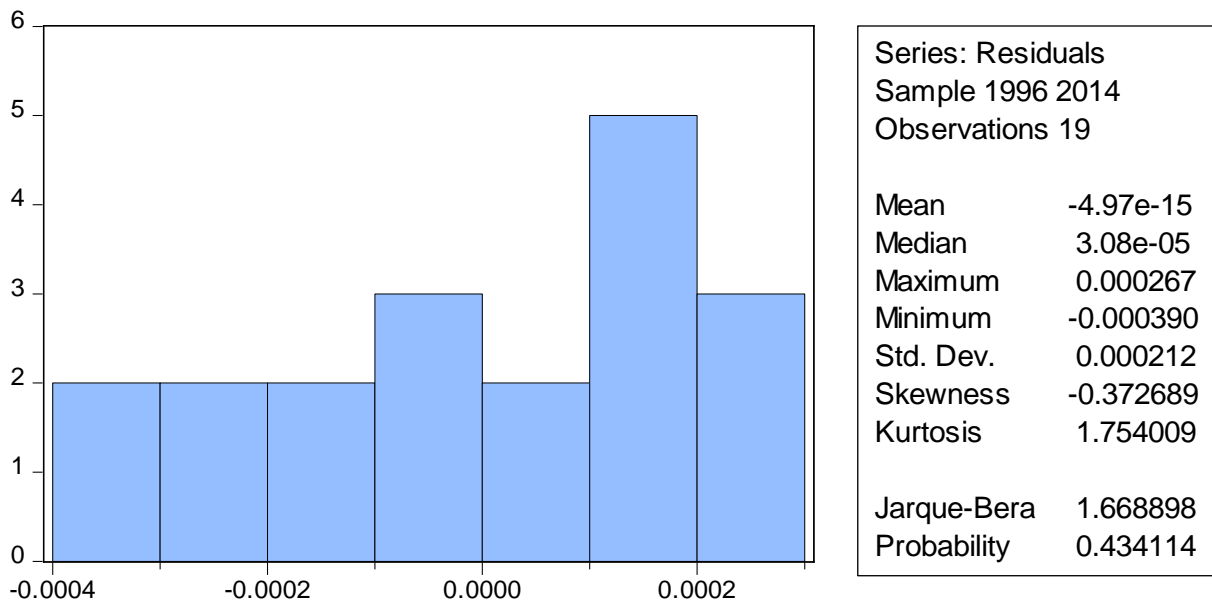


Figure 6-2: Test for Normality on the series Log of SA GFCF on the Log of MPU, EC, NW and NC

Source: constructed by the author

Again, this study conducted a normality test on the regression analysis. In a normal distribution figure 6-2 above, it is expected that the value for kurtosis should cluster below the kurtosis of 3.0. The model experiences excess height if $K > 3$, indicating above average height. The kurtosis value of 1.754009 implies that our model is normally distributed. A further test of normality is from the value of J-Bera, which combines both skewness and kurtosis. The normal standard or Decision Rule: If $J-B < 5.99 \rightarrow$ We do not reject the H_0 (it shows there is normality). If $J-B > 5.99 \rightarrow$ We reject the H_0 (i.e. there is no normality). Again, with a Jarque Bera Value of 1.668898, we do not reject H_0 , meaning there is normality.

Short-Run Causality Tests table 6-8 below on the series Log of SA GFCF on the Log of MPU, EC, NW and NC.

Table 6-8: Short-Run Causality Tests on the series Log of SA GFCF on the Log of MPU, EC, NW and NC

	EQUATION: P-ARDL, H0=Mpu=FS=0		
Statistics	VALUE	DF	PROBABILITY
F –statistics	2694.884	(2, 10)	0.0000
	EQUATION: P-ARDL, H0=Mpu=NW=0		
Statistics	VALUE	DF	PROBABILITY
F –statistics	77.53986	(2, 10)	0.0000
	EQUATION: P-ARDL, H0= Mpu=Constant=0		
Statistics	VALUE	DF	PROBABILITY
F –statistics	83.50271	(2, 10)	0.0000
	EQUATION: P-ARDL, H0=FS=constant=0		
Statistics	VALUE	DF	PROBABILITY
F –statistics	0.915618	(2, 10)	0.4314

Source: constructed by the author

Short-Run Causality Tests on the determinants of the South Africa GFCF

The study also aimed to establish if the pairs of explanatory variables could jointly contribute to South African GFCF through the short-run causality tests in the provinces under investigation. The study adopts a null hypothesis of no short run causality among the GFCF variables in the Wald test result. In Table 6-9 below, equation 1 combines MPU with FS, equation 2 combines MPU and NW, equation 3 combines MPU with its constant, and equation 4 combines FS with its constant. The results from the Wald test are statistically significant at 1%. Ho is therefore rejected, meaning that there is short run causality among the various pairs of variables and South African GFCF except in equation 4. This shows that the various pairs could jointly affect South

African GFCF except equation 4. H_0 : There is no short run causality between the paired explanatory and outcome variables. H_1 : There is short run causality among the paired explanatory and outcome variables. The Decision Rule: Accept null hypothesis (H0) when P-Value is greater than 5%. Reject null hypothesis (H0) when P-Value is less than 5%.

Table 6-9 below shows the ARDL Bound testing on the series Log of SA GFCF on the Log of MPU, EC, NW and NC.

Table 6-9: ARDL Bound testing on the series Log of SA GFCF on the Log of MPU, EC, NW and NC

ARDL Bounds Test

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	K
F-statistic	736.4676	4

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.2	3.09
5%	2.56	3.49
2.5%	2.88	3.87
1%	3.29	4.37

Source: constructed by the author

We again run the bound test to further establish the long run relationship among these variables. It is traditional that the value of F-statistics must be higher than both the lower and higher value of the upper bound. As indicated in the table, the value of 736.4676 is higher than 3.29 and 4.37. This further establishes that there is a long run relationship among the variables in question. Table 6-10 below shows the Test for Serial Correlation on the series Log of SA GFCF on the Log of MPU, EC, NW and NC.

Table 6-10: Test for Serial Correlation on the series Log of SA GFCF on the Log of MPU, EC, NW and NC

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.753079	Prob. F(2,8)	0.1231
Obs*R-squared	7.745874	Prob. Chi-Square(2)	0.0208

Source: constructed by the author

Table 6-11 presents the test for heteroskedasticity on the series Log of SA GFCF on the Log of MPU, EC, NW and NC.

Table 6-11: Test for Heteroskedasticity on the series Log of SA GFCF on the Log of MPU, EC, NW and NC

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.970057	Prob. F(8,10)	0.5075
Obs*R-squared	8.302078	Prob. Chi-Square(8)	0.4045
Scaled explained SS	0.867014	Prob. Chi-Square(8)	0.9990

Source: constructed by the author

The test for heteroskedasticity and serial correlation was carried out on the regression analysis where it is expected that the variance of the error term will be constant for all levels of observation. If this assumption is violated, a heteroskedasticity problem sets in. We use the Breusch-Pagan-Godfrey test to confirm the existence of heteroskedasticity. The rule of thumb is that three probability values must not be significant. As indicated in our table, this condition was met in our results, meaning that there is no heteroskedasticity and serial correlation in the model.

The results of the Wald Test are detailed in table 6-12 below.

Table 6-12: Results of the Wald Test

Test Statistic	Value	Df	Probability
F-statistic	3708.178	(5, 9)	0.0000
Normalized Restriction (= 0)		Value	Std. Err.
Mpu		0.791856	0.055133
FS		-720618.4	97403.77
EC		410412.5	98097.79
NW		1001892.	145027.6
Restrictions are linear in coefficients.			

Null Hypothesis: $C(1)e=C(2)=C(3)=C(4)=0$

Source: constructed by the author

Wald Test Results

Again, the study set out to detect the possibility of a short run relationship flowing from the set of provincial GFCF variables to South African GFCF by adopting the Wald test with a null hypothesis of no short run co-integration in the model. H_0 : There is no short run co-integration in the set of provincial GFCF variables and South Africa GFCF. H_1 : There is short run co-integration among the selected set of provincial GFCF variables and South African GFCF. The Decision Rule: Accept null hypothesis (H0) when P-Value is greater than 5%. Reject null hypothesis (H0) when P-Value is less than 5%.

The results indicate that there is a short-run relationship moving from the set of provincial GFCF variables to South African GFCF at the 1% P-value. We therefore reject the null hypothesis and accept the alternative hypothesis.

Figure 6-3 below presents the stability test on the series Log of SA GFCF on the Log of MPU, EC, NW and NC.



Figure 6-3: Stability Test on the series Log of SA GFCF on the Log of MPU, EC, NW and NC

Furthermore, we conduct a stability test on the recursive residual using the Cusum procedure at 5% level of significance. The normal tradition of stability of variables in the model entails that the blue line falls within the two red lines. This is clearly shown

from the regression result. It shows that our result is stable and further affirms the claim that there is a long run relationship as shown in the figure above.

Determinants of Eastern Cape GFCF

To further establish the factors that determine the GFCF for the EC, the study builds on the model developed by (Lucky & KINGSLEY, 2016).

$$GFCFEC_t = f(\text{Pr y sec}_t + \text{Sec sec}_t + \text{Ter sec}_t)$$

(viii)

$$GFCFEC_t = \alpha_0 + \alpha_1 \sum_1^2 \text{Pr y sec}_t + \alpha_2 \sum_1^{15} \text{Sec sec}_t + \alpha_3 \sum_t^{11} \text{Ter sec}_t + \varphi_t \quad (\text{ix})$$

Dynamic transformation of the model is given as:

$$GFCFEC_t = \alpha_0 + \alpha_1 GFCFEC_{t-1} + \alpha_2 \sum_1^2 \text{Pr y sec}_t + \alpha_3 \sum_1^{15} \text{Sec sec}_t + \alpha_4 \sum_t^{11} \text{Ter sec}_t + \varphi_t \quad (\text{x})$$

Where:

Primary sector includes (1) Agriculture, forestry and fishing, (2) Mining and quarrying.

Secondary sector includes (1) Manufacturing, (2) Food, beverages and tobacco (3) Textiles, clothing and leather goods (4) Wood, paper, publishing and printing (5) Petroleum products, chemicals, rubber and plastic (6) Other non-metal mineral products (7) Metals, metal products, machinery and equipment (8) Electrical machinery and apparatus (9) Radio, TV, instruments, watches and clocks (10) Transport equipment (11) Furniture and other manufacturing (12) Electricity, gas and water (13) Electricity (14) Water (15) Construction.

Tertiary sector includes (1) Wholesale and retail trade, catering and accommodation (2) Wholesale and retail trade (3) Catering and accommodation services (4) Transport, storage and communication (5) Transport and storage (6) Communication (7) Finance, insurance, real estate and business services (8) Finance and insurance (9) Business services (10) Community, social and personal services (11) General government.

Table 6-13 below shows the series of the dependent variables EC GFCF and the explanatory variables of the primary, secondary and tertiary sectors.

Table 6-13: Dependent variables EC GFCF and the explanatory variables, primary, secondary and tertiary sectors

ARDL Cointegrating And Long Run Form				
Dependent Variable: LOGGFCF				
Selected Model: ARDL(1, 1, 1, 2)				
Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LOGPRIMARY)	0.032563	0.000837	38.896703	0.0000
D(LOGSECONDARY)	0.162253	0.001180	137.453163	0.0000
D(LOGTERTIARY)	0.812440	0.001969	412.531294	0.0000
D(LOGTERTIARY(-1))	-0.003849	0.000802	-4.796738	0.0010
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGPRIMARY	0.038973	0.001337	29.156355	0.0000
LOGSECONDARY	0.178037	0.008710	20.441120	0.0000
LOGTERTIARY	0.789570	0.009492	83.179385	0.0000
C	0.547478	0.025756	21.256078	0.0000

Source: constructed by the author

In this section, the factors that determine EC GFCF are classified into three categories, the primary, secondary and the tertiary sectors.

The long- and short-run results indicate that the various sectors are strongly significant. Furthermore, each sector positively impacts on the EC GFCF except the lag of tertiary. For example, a 1% increase in the primary sector would cause EC GFCF to increase by 3.2% and a similar percentage change in the secondary sector would cause EC GFCF to increase by 16.2%. However, there is a significant impact in the tertiary sector as a 1% increase in this sector would cause EC Cape GFCF to grow by 81.24%. The rate of the sectors' contribution in the long- and short-run appear to be similar as the primary, secondary and tertiary sectors impact on the EC GFCF by 3.9%, 17.8% and 78.9%, respectively.

The results show that the tertiary sector in the EC make a more significant contribution to the province's GFCF than the other sectors (see table 6-14 below).

Table 6-14: Error Correction Coefficient

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
ECT(-1)	-0.313845	0.028540	-10.996823	0.0000

Source: constructed by the author

The short- and long-run dynamic results in this study's model are examined through the adoption of the ECT. The coefficient of the ECT indicates how slowly or quickly the variables under examination tend to revert to the equilibrium state (i.e. their speed of adjustment). As seen in table 6-14, the sign of the negative coefficient in the ECT shows that there was earlier disequilibrium in the system. However, the process of adjustment is in the right direction. The value -0.313845 (31.38%) of the ECT depicts the speed of adjustment moving from the short run deviation to the long run equilibrium and the possibility of improvement in South African GFCF. In addition, the ECT, which is significant statistically at 1%, clearly shows that equilibrium is achievable in the long run. This result supports (Rabbi, Akbar, & Kabir, 2015) finding that when the error correction model is strongly significant, this is an indication that there is a stable long run relationship, and the steady-state or speed of convergence in the system is predictable.

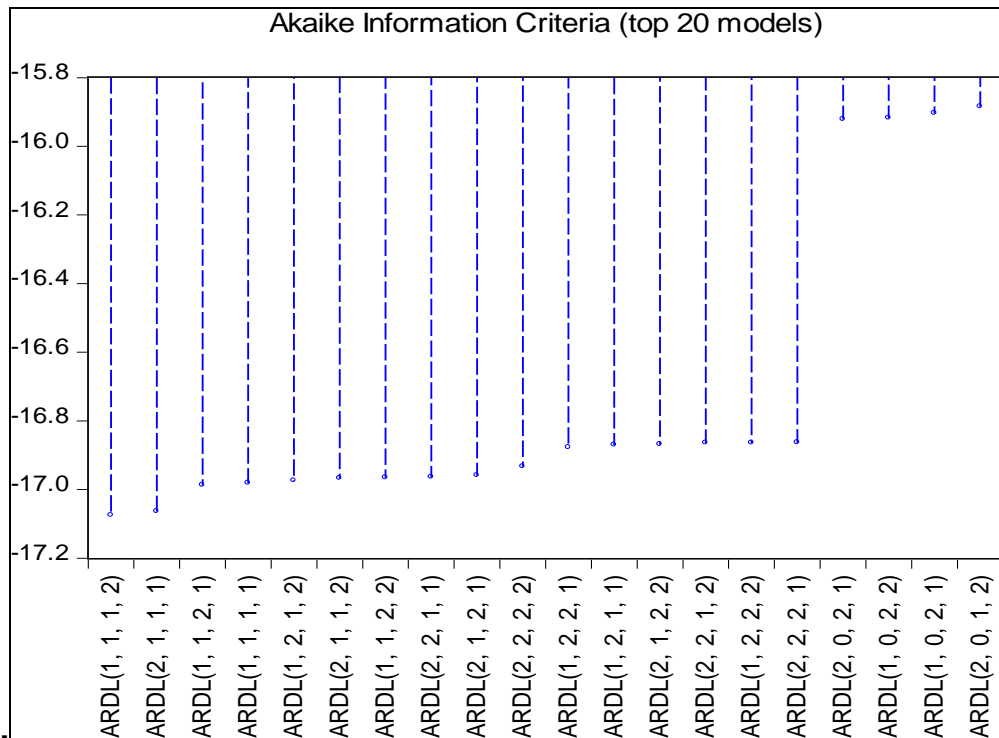


Figure 6-4: Akaike Information Criterion (AIC)

Measuring the Strength of the P-ARDL Regression Model

To establish the strength of the AIC model selection summary over other models (the Schwarz criterion and Hannan-Quinn criterion) as engaged in our time series ARDL regression model, and to further establish the long- and short-run relationships in the study model, we employed a criteria graph to examine the top 16 different time series ARDL models. The common rule of thumb in the literature on model benchmark analysis indicates that, a lower value of AIC performs better and is usually preferred in any given model. It is evident from figure 6-4 above that the first time series ARDL (1, 0, 1,1,1) with the value of -14.8 in the model is the most expected model as it offers the lowest value of the AIC. Table 6-15 details the results of ARDL Bound Testing.

Table 6-15: The Result of ARDL Bound Testing

ARDL Bounds Test				
Null Hypothesis: No long-run relationships exist				
Test Statistic	Value	K		
F-statistic	7.901343	3		
Critical Value Bounds				
Significance	I0 Bound	I1 Bound		
10%	2.37	3.2		
5%	2.79	3.67		
2.5%	3.15	4.08		
1%	3.65	4.66		

Source: constructed by the author

We again run the bound test to further establish the long-run relationship among these variables. It is traditional that the value of F- statistics must be higher than both the lower and higher value of the upper bound. As indicated in the table, the value of 7.9 is higher than 3.65 and 4.66. This further establishes that there is a long-run relationship among the variables in question. Table 6-16 presents the results of the Serial and Heteroskedastic tests.

Table 6-16: Results of Serial and Heteroskedastic Tests

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.463685	Prob. F(2,7)	0.1549
Obs*R-squared	7.436062	Prob. Chi-Square(2)	0.0243

Source: constructed by the author

Table 6-17: Heteroskedasticity Test: Breusch-Pagan-Godfrey

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.209945	Prob. F(7,10)	0.3789
Obs*R-squared	8.254264	Prob. Chi-Square(7)	0.3107
Scaled explained SS	0.801949	Prob. Chi-Square(7)	0.9974

Source: constructed by the author

The test for heteroskedasticity and serial correlation was carried out on the regression analysis where it is expected that the variance of the error term will be constant for all levels of observation. If this assumption is violated, a heteroskedasticity problem sets in. We use the Breusch-Pagan-Godfrey test to confirm the existence of

heteroskedasticity. The rule of thumb is that three probability values must not be significant. As indicated in table 6-17 , this condition was met in our result, meaning that there is no heteroskedasticity and serial correlation in the model.

Tertiary Sector determinants

The section addresses the tertiary sector of the EC GFCF made up (1) Wholesale and retail trade, catering and accommodation (TF), (2) Wholesale and retail trade (TF16), (3) Catering and accommodation services (TF17), (4) Transport, storage and communication (TG), (5) Transport and storage (TG18), (6) Communication (TG19), (7) Finance, insurance, real estate and business services (TH), (8) Finance and insurance (TH20), (9) Business services (TH21), (10) Community, social and personal services (TI), and (11) General government (TJ). However, determination of the lag length is required before going into the regression analysis as this selection would guide the number of lags appropriate for our model.

Table 6-18: VAR Lag Order Selection Criteria

VAR Lag Order Selection Criteria
 Endogenous variables: LOGTERT LOGTF, LOGTG, LOGTH, LOGTJ

Lag	LogL	LR	FPE	AIC	SC	HQ
0	240.4683	NA	1.18e-17	-24.78614	-24.53760	-24.74408
1	361.4154	165.5065*	5.44e-22*	-34.88583*	-33.39461*	-34.63346*

* indicates lag order selected by the criterion

Source: constructed by the author

Based on the results of the order selection criteria, lag one is most appropriate; hence, the adoption of lag one in this estimation and analysis.

Table 6-19: Ordinary Least Square Regression

Dependent Variable: LOGTERT			Prob (F-statistic)	0.000000
Durbin-Watson stat	2.308473		R-squared	0.999915
Selected Model: ARDL(1, 0, 0, 0, 1)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LOGTERT(-1)	0.260655	0.055173	4.724362	0.0005
LOGTF	-0.080793	0.018549	-4.355703	0.0009
LOGTG19	-0.015985	0.017325	-0.922671	0.3744
LOGTH21	0.464497	0.056932	8.158855	0.0000
LOGTJ	0.601723	0.036720	16.38660	0.0000
LOGTJ(-1)	-0.192804	0.047380	-4.069348	0.0016
C	0.225912	0.315703	0.715586	0.4879

Source: constructed by the author

Table 6-20:ARDL Cointegrating and Long Run Form

ARDL Cointegrating And Long Run Form				
Dependent Variable: LOGTERT				
Selected Model: ARDL(1, 0, 0, 0, 1)				
Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LOGTF17)	-0.085696	0.016859	-5.083144	0.0003
D(LOGTG19)	-0.016363	0.017021	-0.961331	0.3554
D(LOGTH21)	0.486092	0.043123	11.272240	0.0000
D(LOGTJ)	0.592014	0.026886	22.019777	0.0000
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGTF17	-0.109276	0.019102	-5.720545	0.0001
LOGTG19	-0.021620	0.022987	-0.940571	0.3655
LOGTH21	0.628255	0.057384	10.948277	0.0000
LOGTJ	0.553083	0.033334	16.591970	0.0000
C	0.305558	0.417916	0.731146	0.4787
Cointeq = LOGTERT - (-0.1093*LOGTF17_ -0.0216*LOGTG19 + 0.6283				
*LOGTH21 + 0.5531*LOGTJ + 0.3056)				

Source: constructed by the author

This section showcases the results of the time series ARDL analysis. The variables regressed are Catering and Accommodation (TF17), Communication (TG19), Business services (TH21) and General government (TJ). This selection is appropriate as other variables are submerged into these variables. Therefore, to avoid the problem of multi-collinearity, the represented variables are selected.

Here the long- and short-run results are submitted and from our estimation, our short- and long-run results indicate that Communication (TG19) does not significantly impact on the EC tertiary sector. However, Catering and Accommodation (TF17), has an inverse relationship for both the long- and short-run relationship. Business services (TH21) and General government (TJ) positively impact on the EC tertiary sector. This means that expanding this sector would grow the tertiary sector. It is interesting to note that combination of some sectors does not necessarily imply compatibility.

Table 6-21: Error Correction Coefficient

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
ECT(-1)	-0.683068	0.090149	-7.577129	0.0000

Source: constructed by the author

The short- and long-run dynamic results in this study's model are examined through the adoption of the ECT. The coefficient of the ECT indicates how slowly or quickly the variables under examination tend to revert to the equilibrium state (i.e. their speed of adjustment). As seen in tables 6-18,6-19, 6-20 and 6-21, the sign of the negative coefficient in the ECT shows that there was earlier disequilibrium in the system. However, the process of adjustment is in the right direction. The value -0.6830 (68.30%) of the ECT depicts the speed of adjustment moving from the short-run deviation to the long-run equilibrium and the possibility of improvement in South African GFCF. In addition, the ECT, which is significant statistically at 1%, clearly shows that equilibrium in the long-run is obtainable. The result supports (Rabbi et al., 2015) finding that when the error correction model is strongly significant, this is an indication that there is a stable long-run relationship, and the steady-state or speed of convergence in the system is predictable.

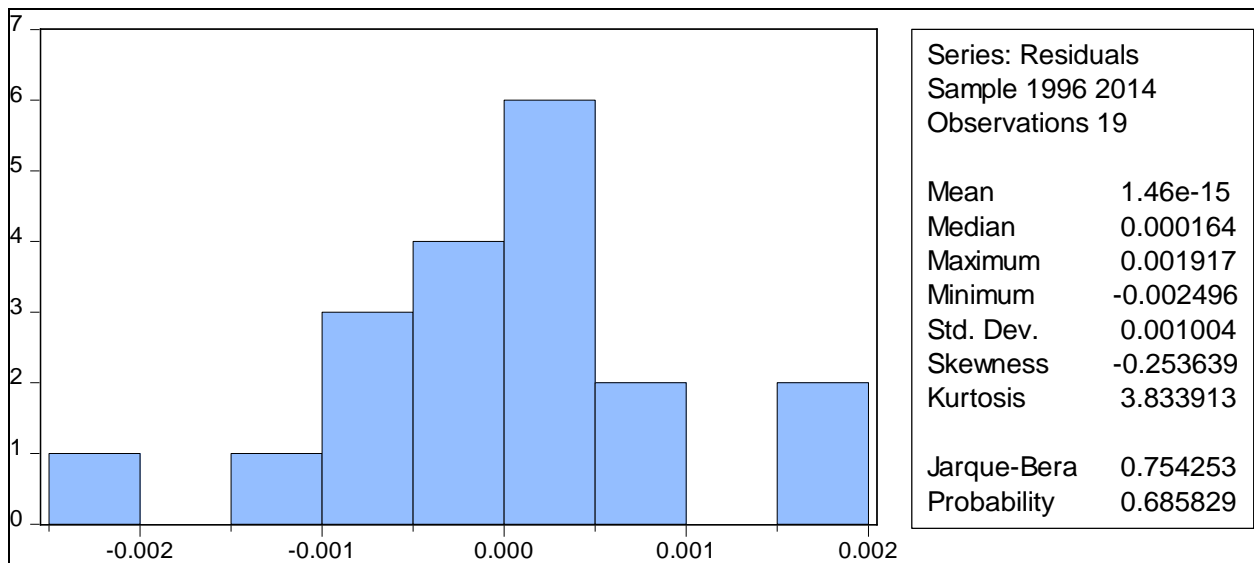


Figure 6-5: Normality test on the regression analysis

Source: constructed by the author

Again, this study conducted a normality test on the regression analysis, as seen in figure 6-5 above. In a normal distribution, it is expected that the value for kurtosis should cluster below 3.0. The model experiences excess height if $K > 3$, indicating above average height. The kurtosis value of 3.8 fits as it is slightly above 3; by implication, our model is normally distributed. A further test of normality is from the value of J-Bera, which combines both skewness and kurtosis. The normal standard or Decision Rule: If $J-B < 5.99 \rightarrow$ We do not reject the H_0 (it shows there is normality). If $J-B > 5.99 \rightarrow$ We reject the H_0 (i.e. there is no normality). Again, with a Jarque Bera value of 0.68529, we do not reject H_0 , meaning there is normality.

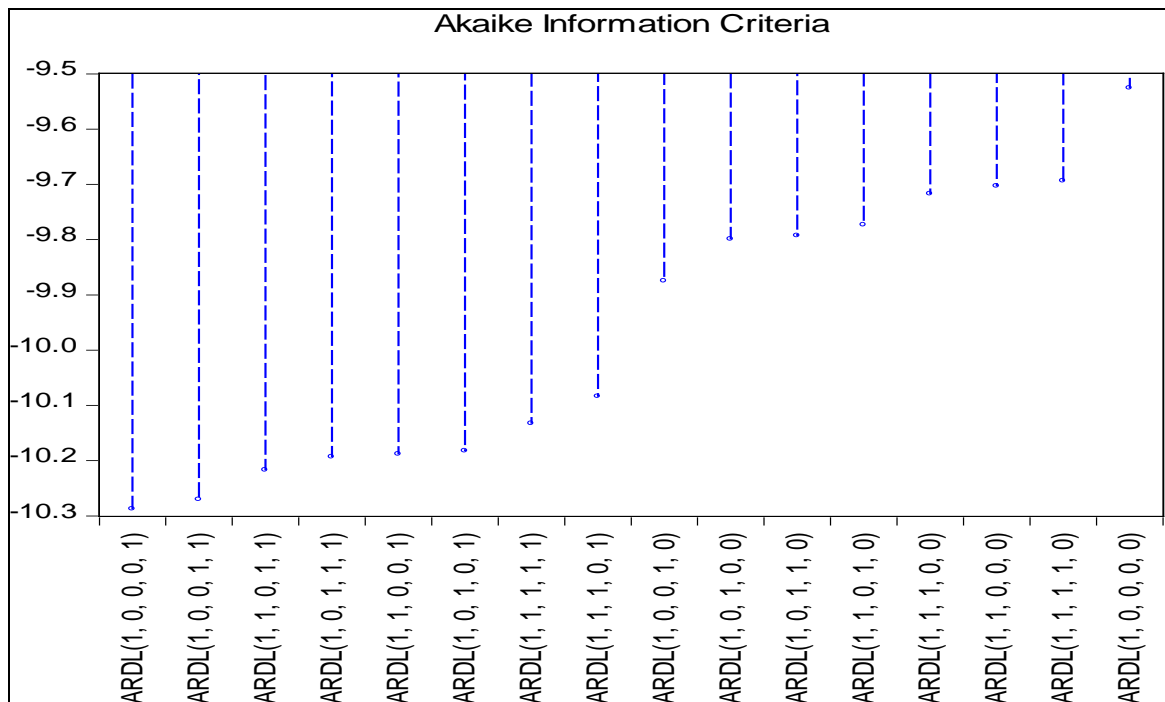


Figure 6-6: Akaike Information Criterion (AIC)

Source: constructed by the author

Measuring the Strength of the P-ARDL Regression Model

To establish the strength of the AIC model selection summary over other models (the Schwarz criterion and Hannan-Quinn criterion) as engaged in our time series ARDL regression model, and to further establish the long- and short-run relationships in the study model, we employed a criteria graph to examine the top 16 different time series ARDL models. The common rule of thumb in the literature on model benchmark analysis indicates that, a lower value of AIC performs better and is usually preferred in any given model. It is evident from figure 6-6 above that the first time series ARDL (1, 0, 1, 1, 1) with a value of -14.8 in the model is the mostly expected model as it offers the lowest value of the AIC.

Table 6-22: ARDL Bounds Test

ARDL Bounds Test			
Null Hypothesis: No long-run relationships exist			
Test Statistic	Value	K	
F-statistic	11.54376	4	
Critical Value Bounds			
Significance	I0 Bound	I1 Bound	
10%	2.2	3.09	
5%	2.56	3.49	
2.5%	2.88	3.87	
1%	3.29	4.37	

Source: constructed by the author

We again run the bound test to further establish the long relationship among these variables. It is traditional that the value of F-statistics must be higher than both the lower and higher value of the upper bound. As indicated in the table 6-22 the value of 11.54376 is higher than 3.29 and 4.37. This further establishes that there is a long-run relationship among the variables in question.

Table 6-23: Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.556527	Prob. F(2,10)	0.2579
Obs*R-squared	4.510622	Prob. Chi-Square(2)	0.1048

Source: constructed by the author

This section records the results of the serial correlation. The traditional rule guiding the results of serial correlation is that, to show that our model is free from the serial correlation problem; the F-Statistic and the value of the observed R squared must not be significant. Our result adequately passed this test as shown in table 6-23 above.

Stability Test

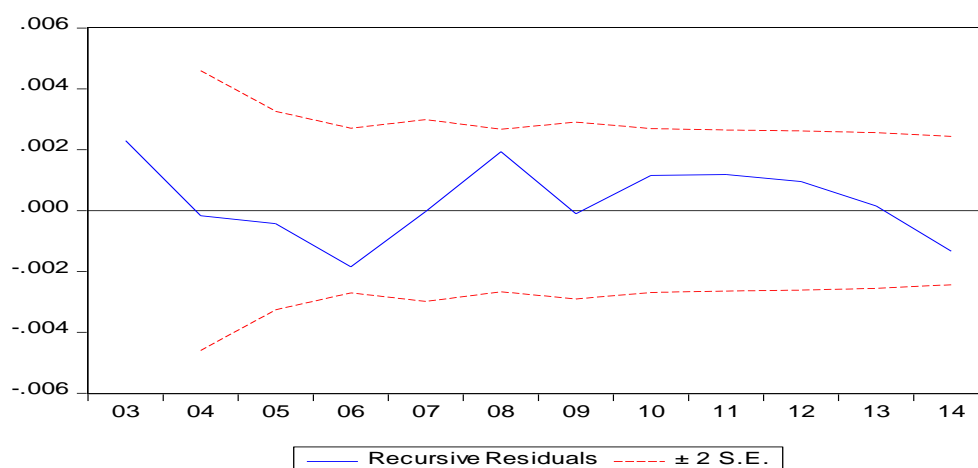


Figure 6-7: Stability Test

Again, the study conducts a stability test on the recursive residual using the Cusum procedure at 5% level of significance. The normal tradition of stability of variables in the model entails that the blue line falls within the two red lines. The regression result clearly shows that our result is stable and affirms the claim that there is a long-run relationship as shown in figure 6-7 above.

Wald Test:

Table 6-24: Wald Test

Equation: Untitled			
Test Statistic	Value	df	Probability
F-statistic	23582.85	(6, 12)	0.0000
Chi-square	141497.1	6	0.0000
Null Hypothesis Summary:			
Normalized Restriction (= 0)	Value	Std. Err.	
Catering & Accommodation	0.260655	0.055173	
Communication	-0.080793	0.018549	
Business Services	-0.015985	0.017325	
General Government	0.464497	0.056932	

Null Hypothesis: Catering & Accommodation=Communication=Business Services = General Government = 0.

Again, the study checks the possibility of a short-run relationship flowing from the set of the provincial determinants of GFCF in the EC and EC GFCF by adopting the Wald test (table 6-24) with a null hypothesis of no short-run co-integration in the

model. H_0 : There is no short-run co-integration for the set of the determinants of GFCF in the EC and EC GFCF. H_1 : There is short-run co-integration (table 6-25) among the selected set of the provincial GFCF variables and South African GFCF determinants of GFCF in the EC and EC GFCF. The Decision Rule: Accept null hypothesis (H_0) when P-Value is greater than 5%. Reject null hypothesis (H_0) when P-Value is less than 5%.

The results indicate that there is a short-run relationship moving from the set of the determinants of GFCF in the EC and EC Cape GFCF at the 1% P-value. We therefore reject the null hypothesis and accept the alternative hypothesis.

Table 6-25: Short-Run Causality Tests on the series Log of SA GFCF on the Log of MPU, EC, NW and NE

EQUATION: P-ARDL, H0=TF17=TG19=0			
Statistics	VALUE	DF	PROBABILITY
F –statistics	107.9229	(2, 12)	0.0000
EQUATION: P-ARDL, H0=TG19=TJ=0			
Statistics	VALUE	DF	PROBABILITY
F –statistics	46.26115	(2, 12)	0.0000
EQUATION: P-ARDL, H0=TG19=TJ=0			
Statistics	VALUE	DF	PROBABILITY
F –statistics	44.31432	(2, 12)	0.0000

Source: constructed by the author

Inferences, comparison with other provinces

This study carried out a brief analysis of the effects of GFCF in all SA's provinces on overall GFCF (table 6-25). Based on the compatibility of data selection, only five variables were finally selected and the results show that from the short-run results, all the variables are statistically significant at 1% level of significance and are positively related to South African GFCF. However, of great importance is the log of EC GFCF as the result indicates that a 1% change in this province's GFCF would contribute a 69.10% increase to South African GFCF.

Again, for the long-run regression result, all the explanatory variables are statistically significant except GFCF for North West Province. Hence North West's GFCF does not impart on South African GFCF. Again, there is an inverse relationship between South African GFCF and that of Free State. This indicates that a 1% increase in GFCF for

Free State would cause South African GFCF to decline by 23.42%. For the EC, the reverse is the case as a 1% increase in the EC GFCF would, all things being equal, cause a remarkable increase in South African GFCF of 104%.

This positive relationship, particularly for the EC, concurs with the findings of (Fedderke, 2006; Nowbutsing, 2012) and (Bakare, 2011). However, our results negate those of (Kanu et al., 2014; Kumar, 2000) and (Torbira & Ogbulu, 2014) who established a negative relationship between the factors that determine GFCF and GFCF among the countries of interest. Since StatsSA estimates that the EC contributes 7.5% of South African GFCF, our result establishes that this contribution is positive; hence, the need to increase it in order to improve the country's growth rate.

Furthermore, the study finds that the tertiary sector has a tendency to improve the EC GFCF since of the three sectors, it makes a significant contribution of 81.24%. This result is supported by (Karim, 2010; Torbira & Ogbulu, 2014) studies that found a positive relationship between the tertiary sector and economic growth.

Summary, Discussion and Conclusion

This study investigates the nexus among the GFCF of South African provinces, particularly the EC, and its overall impact for the period 1996 to 2015. The null hypothesis is that there is no significant statistical relationship between the EC GFCF and the factors that determine it and SA's economic growth. The study's contribution to knowledge includes:

(1) it provides evidence beyond mere statistical evaluation that the EC makes a significant contribution to economic growth in SA; however, the extent of its contribution is a function of the factors that determine it.

(2) Again the study provide evidence to establish that the tertiary sector of the EC GFCF contributes more than the primary and secondary sectors combined in this province.

(3) The study also provide evidence to establish that government activity contributes more than the other factors that determine the EC GFCF. The time series ARDL is

adopted in our estimating technique using augmented Cobb Douglas as our model equation. The study finds a mixed relationship among the variables under investigation.

In terms of policy implications, funds should be redirected from government grants and financial aid to the development of the EC's primary sectors such as agriculture and mining since this sector contributes only 3.3% to the overall EC GFCF. It is interesting to note that the combination of some sectors does not necessarily imply compatibility to enhance the growth of the tertiary sector. For instance, growth is enhanced by Catering and Accommodation (TF17) but not necessarily when Wholesale and Retail Trade is included. Again, Communication (TG19) in the tertiary sector makes a more positive contribution to the EC GFCF than when Transport and Storage, are merged. Finally, Business services (TH21) in the tertiary sector performs better than when it combines with Finance, Insurance and real estate.

This section addresses the target of a 5.4% real GDP growth rate for SA using GFCF as the determinant.

Test for Unit Root for the two variables

Table 6-26 shows the results of the test for unit root on the bi-variables regression analysis. Three alternative methods were employed for the analysis. From the result, it is clear that both variables are stationary at levels. Hence simple Ordinary Least Square may be appropriate for the regression analysis that follows (Giles, 2013).

Table 6-26: Test for Unit Root for the two variables

South Africa	Augmented Fuller	Dickey	KPSS		Dickey Fuller	
	Sig. Lev.	P-Value	Sig. Lev.	P-Value	Sig. Lev.	P-Value
Log of GDP	I(0)	0.0001	I(0)	0.0000	I(0)	0.0334
Log GFCF	I(0)	0.0553	I(0)	0.0000	I(0)	0.0284

Source: constructed by the author

Ordinary Least Square Regression on the series LogGDP of South Africa and its corresponding Log GFCF

Table 6-27: Ordinary Least Square Regression on the series LogGDP of SA and its corresponding Log GFCF

Dependent Variable: LOGS_A_GDP				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGSAGFC	3.997817	0.248115	16.11273	0.0000
C	-45.42910	3.704839	-12.26210	0.0000
Prob (F-statistic)	0.000000			

Source: constructed by the author

Table 6-27 summarizes the result of Ordinary Least Square regression analysis. The regression of real GDP growth was carried out against GFCF in SA. The results indicate that GFCF is statistically significant at the 1% level of significance.

Giving that:

$$Y = a + bx$$

Where Y= GDP growth Rates

a = constant

b= coefficients that determine the GDP growth rate in the South African economy.

$$Y = a + bx \tag{xi}$$

$$Y = -45.43 + 3.99x \tag{xii}$$

$$5.4 + 45.43 = 3.99x \tag{xiii}$$

$$50.83 = 3.99x \tag{vix}$$

$$\frac{50.93}{3.99} = x \tag{xv}$$

$$x = 12.73. \tag{xvi}$$

This value reveals the investment gap. For SA to achieve the target of a 5.4% real GDP growth rate, the current 18,5%, when added to the 12.73% = 31%. Hence, it is expected that South African GFCF will grow at the rate of 12.73%. However, this rests

on the assumption that only GFCF determines the economic growth in SA. This is justified when considering all the sectors of the economy computed under the GFCF and the high value of R square 0.97. The use of OLS regression is justified premised on the fact that the two variables are stationary at levels.

To determine the EC's contribution to the achievement of the 5.4% target through its GFCF, the procedure follows the same pattern as that of SA as detailed below in table 6-28.

Table 6-28: Ordinary Least Square Regression on the series LogGDP of Eastern Cape and its corresponding Log GFCF

Dependent Variable: LOGECGDP				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGEC	4.995695	0.447903	11.15352	0.0000
C	-49.79407	5.515541	-9.027958	0.0000
R-squared	0.879774	Mean dependent var		11.72155
Prob (F-statistic)	0.000000			

Source: constructed by the author

Giving that:

$$Y = a + bx \tag{xvii}$$

Where Y= GDP growth Rates

a = constant

b= coefficients that determine the GDP growth rate in the EC economy.

$$Y = a + bx \tag{xviii}$$

$$Y = -49.79 + 4.996x \tag{xix}$$

$$5.4 + 49.79 = 4.996x \tag{xx}$$

$$55.19 = 4.996x \tag{xxi}$$

$$\frac{55.19}{4.996} = x \tag{xxii}$$

$$x = 11.05\% \tag{xviii}$$

Hence, it is expected that the EC GFCF will grow at the rate of 11.05%. However, this also rests on the assumption that only GFCF determines the EC's economic growth. This is justified when considering all the sectors of the economy computed under the GFCF and the high value of R square 0.88. The use of OLS regression is justified premised on the fact that the two variables are stationary at levels.

Extending the same equation for SA and the EC, the researcher in table 6-29 calculated the required investment target for other provinces to close the investment gap to achieve the 5.4% GDP growth needed to meet the NDP investment target.

Table 6-29: Required Investment target to close the investment gap

<u>Country and Provinces</u>	<u>Percentage Increase</u>
South Africa	12.73
Eastern Cape	11.05
Gauteng	11.87
KwaZulu-Natal	11.28
Limpopo	10.99
North West	10.57
Free State	10.37
Mpumalanga	10.91
Western Cape	11.97

Source: constructed by the author

The chapter is chapter 7, it presents the conclusion and recommendations and the EC's investment prospects.

CHAPTER 7 CONCLUSION, RECOMMENDATIONS AND POLICY IMPLICATIONS

The previous chapter presented and discussed the econometrics results and analysis. This final chapter presents the conclusions, recommendations and policy implications. The chapter also discusses the Eastern Cape Prospects, models from other provinces and Model propositions, Proposed Eastern Cape provincial Investment model or paradigm. It recaps the research objectives and reflects on whether they were achieved. The conclusions and recommendations are based on the research results. The chapter concludes with the limitations of the study, areas for further research and a chapter summary.

7.1 CONCLUSION

The EC is not geared for the 21st century industrial revolution, especially when one considers planning, and government administration and leadership as well as the private sector. In order to prosper, the province needs to urgently strengthen its political leadership and administrative capacity at provincial and local levels, and address infrastructure backlogs. As Respondent 1 noted, "For the past 10-15 years we have had a political leadership drought in the province and if we go this route, we are going nowhere."

The province needs a capable administration, which is consistent, decisive and committed to socio-economic development. It requires administrative leadership that is capable of good governance, intolerant of non-compliance and does not deviate from set standards and policies. Business, bureaucrats and politicians need to do their bit in setting the province on a different path when it comes to investment. There is a lack of coordination of SOEs in the province and these entities have now become political agencies. Furthermore, the Office of the Premier (OTP) is battling to play its monitoring role as it does not have firm relations with municipalities. Agencies are dependants of government and cannot stand on their own. The lack of a provincial investment model or framework stems from the lack of holistic direction on strategic

investment growth that should be informed by an integrated, clear vision and a plan to achieve it.

It is evident that the EC has a dire lack of infrastructure and extensive infrastructure backlogs. The province has no master infrastructure plan and infrastructure has been built in a haphazard manner. The EC suffers a serious lack of bulk and economic infrastructure. Furthermore, most efforts in this regard are directed at metros while the district municipalities struggle with basic infrastructure. However, even in the metros, the infrastructure does not meet investors' expectations.

The respondents noted that the EC lacks a clear development policy and agenda. There are no established economic hubs and corridors in rural municipalities. The DEDEAT's mediocre performance is a major factor in the low rate of investment in the province as it focuses on projects rather than long-term economic development. Given that there is no responsible provincial investment agency or unit within the DEDEAT, the OTP could play an overarching role in this regard. The respondents also maintained that the ECDC is a failed agency as far as investment attraction and promotion is concerned.

There is a planning disjuncture as government departments use consultants even for basic planning and IDPs in municipalities. The province does not have an aggressive internal and external investment marketing drive; indeed, there is ambiguous articulation of why the EC is an investment destination. There is also no marketing drive to promote investment in rural areas. It is clear that there are no provincial investment incentives, but rather, fragmented ones among district municipalities, metros, the ECDC and both provincial IDZs. Notably, the province has not been able to influence the national agenda and is unable to lobby for additional funding as it struggles to spend the budget it receives from National Treasury. It is evident that budgets and grants from government and other funding agencies are not utilised in an efficient manner.

The research findings point to a shortfall in private and public sector investment as well as FDI that is evident in the economic sectors (primary, secondary and tertiary). They show that, over the years, the EC has failed to identify investment priorities,

which could have supported key economic sectors and addressed socio-economic challenges (food security, unemployment, poverty) in the province.

The province undermines its own skills and expertise; as a result, it is a net exporter of skills. It suffers a serious skills shortage and is unable to retain skilled personnel as they migrate to other provinces. Low per capita income is also a challenge; provinces with higher incomes have been able to increase their GFCF although Limpopo's GFCF is growing faster than that of the EC. The literature points to a correlation between low investment and a low savings rate.

The study concludes that the province needs to address the decline in agriculture by investing more in this sector. The multiplier effect would enhance investment prospects, particularly in agro-processing. The ECDC and IDZs' failure to attract substantial investment was another factor cited by the respondents. Low returns on investment, a lack of political will, political uncertainty, the inadequate role played by universities, and a lack of collaboration among government departments are the key pointers that emerged from the study.

The respondents also pointed to the confusion of roles and duplication between provincial departments and local municipalities. At times, national government imposes projects on municipalities and in some cases implements projects in provinces without the knowledge or co-ordination of the province. The literature and research findings strongly suggest that there is inadequate state support, particularly in the backward regions. The governance spheres within the province (provincial and municipal) are not talking to one another and are not working with the national sphere.

Recapping the Research Objectives

This section examines the study's objectives and whether these were achieved. The research objectives were to:

- (1) Analyse the determinants of Gross Fixed Capital Formation (GFCF)
- (2) Analyse the factors that contribute to low investment (the investment gap) in the province
- (3) Determine what can be done to attract more investment to the province
- (4) Propose an investment model that could close the investment gap in the EC

(5) Identify the role of political leadership in attracting investment

The broader research objective was to generate knowledge to assist the province to scale-up large investments with the highest multiplier effect (advance the current investment model) and develop an investment model and a monitoring and evaluation mechanism.

Objective 1: Analyse the determinants of GFCF

In tackling this objective, respondents were asked why the rate of investment has been low in the EC Province, and what can be done to increase it. The second part of the question is addressed in detail under objective three.

There was significant agreement among the respondents in both the quantitative and qualitative responses that the following factors determine investment, and would entice investment in the province:

- political willingness to make investment decisions,
- government investment in economic infrastructure,
- improved governance in the province,
- support from government,
- investment incentives,
- policy certainty,
- a higher savings rate across the country,
- higher returns on investment,
- availability of skilled labour,
- Government investment in health and education.

The participants indicated that the province does not have a good performance record when it comes to these factors.

The EC is battling to expand its revenue; provincial income is lower than that of the main economic hubs (Gauteng, KwaZulu-Natal and the Western Cape). It lacks a revenue strategy; investment, particularly in health and transport is required to increase revenue collection. Low investment in ICT leads to duplication of costs, especially in hospitals. Reducing government departments' wage bill could also increase provincial revenue. In some cases, administrative inefficiency has led to people being paid salaries three to six months after resigning from the civil service. Reducing the number of subjects offered in the school curriculum could save the education department money. Consolidated planning by provincial departments would also reduce expenditure, by eliminating duplication. Urgent intervention is required to get rid of dead wood in government departments and municipalities. The respondents reiterated that government is not a job creator but a facilitator of economic development. Thus, urgent administrative and political reform is required to set the EC on the right path.

Objective 2: Analyse the factors that contribute to low investment (the investment gap) in the province

Respondent 5 stated that, the "Eastern Cape and Investments do not mix; they cannot be put in the same line," mainly due to a lack of technical expertise in key departments and agencies. It was noted that the ECDC does not have sufficient capacity to drive investment and that the DEDEAT's monitoring of investment in the province is weak.

The questionnaire survey and interviews revealed similar factors that contribute to the low rate of investment in the EC, including:

- Lack of infrastructure.
- Poor political leadership.
- Inadequate administrative leadership.
- A lack of forward planning and implementation by government, shortage of skilled labour, inefficient administration of the investment budget, low per capita income levels and land reform challenges.

- Some respondents also noted that the high crime rate in the EC, especially in the former Transkei, contributes to low investment rates in the province.
- The lack of an investment champion to attract investors to the province, be it a unit within DEDEAT, the OTP or agencies such as COEGA, ELIDZ and municipal agencies.
- The respondents strongly suggested that a competent person/s is required to lead the investment unit in the province.
- The low investment budget and lack of a budget to promote investment.
- The general view of the respondents was that the provincial investment arm, the ECDC, has failed dismally to promote and attract inward investment in the province.

The respondents observed that the ECDC lacks competence in all spheres of investment (promotion, retention and service). The agency's understanding of the phases of investment, from lead generation, to exhibitions and after care service, is very limited. The respondents added that there is no responsible provincial department or investment agency or unit within the DEDEAT or OTP. The ECDC's pre- and post-investment activities are not clear and are often confusing to investors and provincial personnel. The province as a whole lacks an investment vision and strategy, resulting in duplication of the efforts of municipalities, IDZs, and government officials. Current investment initiatives mainly focus on metros and rural towns are left out of the picture. The respondents concurred that many municipalities are dysfunctional, and that government plans are not aligned to the needs of the province. Furthermore, there is little or no collaboration between the two provincial IDZs, district municipalities, the private sector and government departments.

The respondents also stated that greed and corruption must be curbed if the province intends to attract more investment. The EC should design an investment strategy and build the brand of the province as an investment destination within and outside its borders. There is also strong distrust between the public and private sectors. Sound relations between government and business are essential in changing the dynamics of the province.

Objective 3: Determine what can be done to attract more investment to the province

Once again, the questionnaire survey and interviews yielded similar responses on this issue. The following factors were identified that would attract more investment to the EC Province:

- Increase the province's fiscal allocation; ensure proper implementation of plans and policies and strengthen political will;
- Promote public-private partnerships, and increase private sector investment in infrastructure;
- Increase public sector investment in infrastructure, and attract FDI;
- Improve the skills base of the province, and involve traditional leaders and the community in attracting investment;
- Establish a provincial investment agency;
- Increase the role of organised labour and civil society in attracting investment;
- Efficient government funding;
- Investment by the province in its natural resources (land, tourism, beaches, cultural heritage).

The key point that emerged from the interviews was that an action plan is needed to sell the province as an investment destination. Clear targets need to be set for different departments and entities. The EC needs to grow its investment rate above the national average. The DEDEAT is instrumental in driving investment in the province: a bottom-up approach is also required where investment is championed by local and district municipalities and IDZs.

It is also clear that political leadership needs to shape up, refocus and shy away from unsound political appointments. The respondents noted the need to address political instability in the metros and district municipalities. The EC was once the centre of SA's political life; it needs to reclaim this position and use it positively to attract investment.

Furthermore, the investment drive should be a coordinated effort among provincial departments, metros, district municipalities, the IDZs and the private sector. Skilled people should be employed in key positions. Infrastructure backlogs must be addressed, as infrastructure is a key driver of investment.

The respondents also pointed to the need to resolve land issues, particularly in the former homelands, and include chiefs and communities in development planning. The EC should also nurture entrepreneurs who can take the province forward.

Objective 4: Propose an investment model that could close the investment gap in the EC

In achieving objective four, the study started by calculating the investment gap. The model is depicted and discussed later in this chapter. It is clear that the EC suffers an investment gap; however, an exact figure cannot be cited, as the main driver of economic development in the province, the DEDEAT, has not set an investment target. The econometrics modelling in chapter 6 confirmed the investment gap and the required investment to achieve the NDP target of 30% by 2030. The estimated investment gap using two possible equations is:

- (1) Investment Gap using the NDP target

the econometrics calculation showed that the provincial investment gap is 11.05%

$$\text{Investment Gap} = \text{Target investment} - \text{Current Investment}$$

$$= 30\% - 18.95\%$$

Therefore, investment gap (1) → 11.05%

- (2) Investment Gap using the EC Socio-Economic Research Outlook target

$$\text{Investment Gap} = \text{Target investment} - \text{Current Investment}$$

$$= 25\% - 19\%$$

Therefore, investment gap (2) → = 6%

All the respondents agreed that the province has a significant investment gap, and is also under-investing. It was noted that this gap is more visible in district municipalities that have extremely poor infrastructure, as well as local municipalities, particularly in the former Transkei.

According to the (DBSA, 2012), public investment in SA is moving at a very slow pace despite the enormous public sector investment budget estimated at R844.5 billion for the 2012/13-2014/15 medium-term expenditure framework. It notes that faster economic growth will require stronger public sector capital investment and greater private sector investment as well as improved trade performance.

Objective 5: Identify the role of political leadership in attracting investment

The resounding response from all the study participants was that the EC's political leadership does not play a positive role in attracting investment. The province is a typical example of an area where politics overrides economic development. While there are some competent leaders, overall, leadership in the province does not make the grade; this is largely due to the fact that appointments are not based on merit.

The emergence of the DA as a leading political party in NMBM is viewed by some as a positive factor, politically and administratively. Time will tell if this will, indeed, make a difference.

The EC's political leadership lacks a united voice on matters of investment. Endemic corruption and maladministration are the consequence of poor political leadership. The respondents maintained that the people of the province have no confidence in the leadership; thus, investors cannot be expected to place their faith in the province. Non-performing members of executive councils (MECs) are not removed and officials engaged in corrupt practices are not always brought to book. The strategic leadership evident in provinces like Gauteng, KwaZulu-Natal and the Western Cape is lacking. The respondents agreed that there is a strong relationship between political leadership and investment growth. They added that political leadership at municipal level is inadequate to promote investment.

The respondents noted that strong political leadership is required to decisively address investment bottlenecks and obstacles to investment attraction. Furthermore, leadership should have a sound understanding of development issues and should be advocates for development. Administrative leadership also needs to be held accountable.

Finally, If the environment for doing business in Eastern Cape Province was conducive as engaging in corrupt activities, EC would be the most developed province in South Africa. A conducive environment should be created for business expansion and increased private sector investment in both urban and rural areas. If business succeeds, citizens flourish and if citizens succeed business flourishes, increasing government revenue. A member of the EC diaspora emphasised that, “We all want to go back and contribute to the province but there are no job opportunities for the skills we have and the political leadership and administration of the province does not seem to be making a meaningful impact either.”

One of the biggest challenges in SA today is the culture of entitlement and dependence on government (Daily Dispatch, 2013). Citizens are not visible in advocating for development and are only seen during service delivery protests. Active citizen involvement is essential to address the problems of political leadership in the EC and attract investment to the province.

7.2 RECOMMENDATIONS

Strong GFCF growth is highly desirable in any economy as it ensures maximum productive capacity that underpins reasonable economic growth, coupled with high levels of job creation (Kaplan, 2013). Improved infrastructure in the EC would promote expansion of industries and enhance returns on investment in physical capital (Kaplan, 2013). The province needs to improve the quality of its infrastructure and cap payments to contractors that build such infrastructure. It needs to understand that development is a process, not an event. The starting point is to retain current investors and attract new ones, as this will promote inward investment. Above all, the EC needs to show that it is the centre of a vibrant rural economy and a significant role player in the South African economy.

Political leadership is not exerting a positive impact on investment in the EC. The general perception is that such leadership is poor and corrupt. This challenge needs to be urgently addressed.

Based on the study's findings, the following recommendations are made:

- For the EC to advance its GFCF, it needs to double its investment rate to 11.05% of GDP. The foremost priority should be infrastructure investment that should always be underpinned by intelligent public sector investment. Higher quality infrastructure is needed to entice investors, which will lead to industrial expansion and enhance returns on investment in physical capital.
- The province needs dedicated, strong political leadership.
- A capable administration is required that is consistent, decisive and committed to socio-economic development. Good governance that does not tolerate non-compliance or deviate from set standards and policies is imperative. Corruption must be rooted out.
- The EC requires a comprehensive investment strategy that incorporates government departments, SOEs, metros, district and local municipalities and the private sector. The model should explicitly quantify the investment target so that all role players are aware of this target, the investment gap and their role in reaching the target. Investment priorities should be set that support key economic sectors and address socio-economic challenges (food security, unemployment, poverty).
- The EC should establish a one-stop shop investment promotion agency within the DEDEAT or the Office of the Premier to play an overarching role in investment promotion. The investment agencies in SA's leading economic powerhouses (the Gauteng Investment Agency, Trade and Investment KwaZulu-Natal and the Western Cape Investment Agency) have a proven track record. The respondents pointed to the need for an EC Investment Agency, although they expressed fear that the political climate was not conducive for it to succeed.

- Money follows vision and plans; a provincial vision underpinned by sound leadership, funding and innovation would enable the EC to identify new economic opportunities and new age entrepreneurs to take the province forward.
- The EC requires a provincial revenue strategy that filters down to municipalities. The province should consider selling bonds as part of revenue expansion, particularly for investment development.
- Improved platforms should be created for collaboration between the government, the private sector, universities and traditional leaders.
- The province should advocate for increased national support, particularly for provinces that are battling with financial resources and a lack of human capital. This would go a long way in uplifting backward and least developed regions like the EC. The most skilled people live and work in the three big provinces (Gauteng, the Western Cape and KwaZulu-Natal). Efforts should be made to attract and retain skilled personnel in the EC.
- The EC also needs to improve efficiency in government spending and allocation of resources coupled with cost efficiency, particularly with regard to tenders. Departments like Health and Education, municipalities and SOEs such as the ECDC are not operating efficiently. For the past five years, the ECDC has not spent its allocated budget.
- The role and functioning of the DEDEAT also need to be strengthened. Furthermore, local economic development should be boosted, especially in district municipalities.
- Poor or non-implementation of basic plans and IDPs in the case of municipalities is a major challenge. Such plans are formulated at a cost, yet not implemented. Government departments need to work together to reduce duplication. There is also a need to create economic hubs outside the metros. Small towns should be revived. Vibrant rural economies could be created by investing in agriculture. The EC also needs to resuscitate forestry to expand the primary sector's contribution to the provincial economy.

- Administrative capacity should be strengthened, particularly in relation to monitoring and evaluation.
- Land issues need to be resolved, particularly in the former homelands, and chiefs and communities should be part of development planning.
- The EC government should promote collaboration with banks and financial institutions to enhance capital investment and development projects and initiatives, especially in rural towns.
- A national drive to increase savings would address the country's high level of debt and this would filter down to provinces.

7.3 POLICY IMPLICATIONS

The South African economy is dominated by three economic hubs (Gauteng, KwaZulu-Natal and the Western Cape), with the other six provinces make a minimal contribution of around 34% to the national economy. The aforementioned provinces attract the cream of the crop in terms of skills and investment. This suggests that national government should consider offering more policy support to the struggling provinces. This would reduce unemployment and dependence and attract investment. For the EC to grow, investment growth needs to be above the national average.

KwaZulu-Natal, Gauteng and the Western Cape's investment agencies are good examples of how the EC might structure its own investment agency. This would be a one-stop shop that links district municipalities, the DEDEAT, the Department of Trade and Industry (DTI) and IDZs.

7.4 THE EASTERN CAPE PROSPECTS

This study's topic is "Advancing Gross Fixed Capital Formation (Investment) Paradigm in the Eastern Cape Province of South Africa: Historical Trends and Prospects". This raises the question of whether or not the EC has an investment paradigm.

The literature shows that, not only does this province does not have an investment paradigm or model; it does not have an investment strategy. The respondents were not aware of an investment model or the province's investment target. The findings also show that, while investment initiatives are undertaken by the East London and Coega IDZs metros, the ECDC and some municipalities, they are working in silos. Strategies and targets are formulated with no reference to a provincial investment strategy or target. Such initiatives need to be coordinated and enhanced for the province to increase its investment rate.

The literature and the data gathered for this study confirmed historically low rates of investment in the EC Province. While the province desires to increase the investment rate, it is not clear what the target is. The NDP sets a 30% investment target (Mike, 2013), while the DEDEAT's 2014 socio-economic review and outlook, indicates that GFCF of between 20% and 25% of GDP would be a suitable target to achieve the desired expansion of infrastructure and productive capacity. The Eastern Cape Vision 2030 PDP notes that the investment rate in the province is very low, but does not set a target.

Given the economic dynamics of the EC, a target of 20% is not suitable because the current rate is 19%. Furthermore, it is not clear why the province's target is below that set by the NDP, especially since other provinces are making efforts to upscale their investment levels. The respondents proposed the investment areas set out in figure 7-1 for the EC. This would require that investment be harnessed from the public and private sectors, as well as FDI.

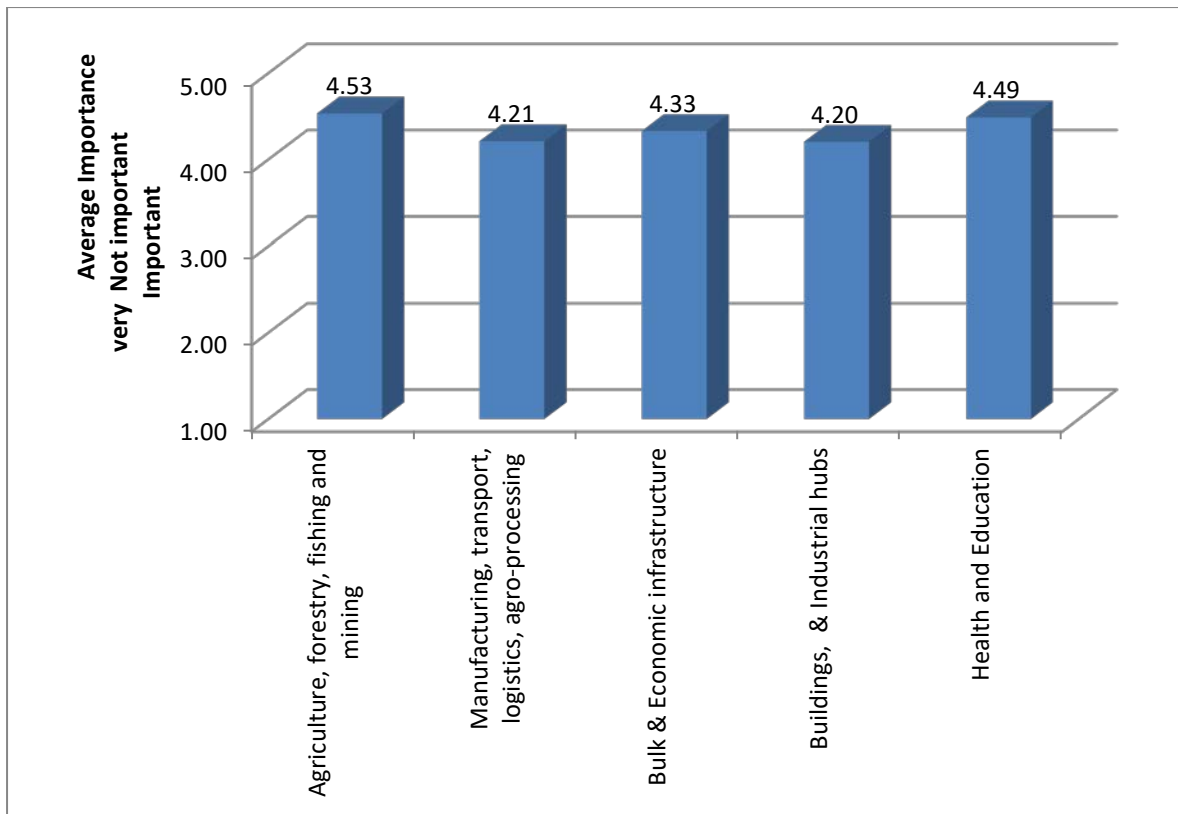


Figure 7-1: Proposed investment areas for the province

Thus, the recommended areas for investment are:

- Agriculture, forestry, fishing and mining
- Manufacturing, transport, logistics and agro-processing
- Bulk and economic infrastructure
- Building, and industrial hubs
- Health and education

Is the Eastern Cape a significant role player in South Africa's development agenda?

The EC suffers high rates of unemployment and poverty levels and lacks local economic development that would attract investment. The public sector's Expanded Public Works Programme cannot address all these challenges.

The prospects of the EC lie in its ability to transcend its current weaknesses. There is an urgent need to identify specific areas that would enable it to attract investors. The EC needs to identify what differentiates it from other provinces and build a compelling case to attract investment.

The province needs to build a strong economy that builds and sustains its resources (natural, human and fiscal). The provincial economy needs to become more competitive and to be able to seize new economic opportunities and be more resilient against future economic shocks. The EC's failure to develop its agricultural sector is a lost opportunity as this sector could drive economic development. Massive support of the auto sector has reaped dividends in SA. Likewise, major public investment, especially in irrigation schemes, could make the EC a leader in agricultural production. Public-private partnerships would also assist in turning this sector around.

Currently, investment is focused on the metros. Concerted efforts need to be made to attract investment in rural areas and townships. Furthermore, the EC is not crowding in sufficient public investment from the national level. There are few public-private partnerships and little collaboration with civil society.

While more than a century of marginalisation and the EC's location, land issues and rural nature are impediments to investment, all is not lost. Strategies need to be devised to attract investment that suits its location and rural nature. Chiefs and civil society need to be brought on board to champion an economic revolution in the rural areas and townships.

Investment in infrastructure would absorb unskilled labour, and revitalise industrial parks in places like Butterworth, Dimbaza, Mthatha and Queenstown. The province needs to make it a point that massive investments like the Mthombo refinery actually take off. Investment should also be expanded in university towns. Small towns with

FET colleges could also benefit. For example, the government could work with the University of Fort Hare to establish university towns in Alice, Butterworth, and Queenstown. This would create vibrant cultural and business centres with major economic spillovers (O'Mara, 2015).

Finally, strong political and administrative leadership is a must if these efforts are to succeed. Reporting structures and coordination between key departments need to be strengthened, as well as monitoring and evaluation mechanisms. These investment areas can then be intertwined with the proposed investment model details in heading 7.6 of the study.

7.5 MODELS FROM OTHER PROVINCES AND MODEL PROPOSITIONS

The researcher visited the monitoring and evaluation department in the presidency to understand the national system to monitor progress in attaining the NDP milestones.

While SA is not short on innovative policies and strategies, the problem lies in implementation. The national department does not have strong systems to monitor progress at provincial level and relies on feedback or reports that are not verified. The most comprehensive reports on NDP targets and milestones are received from the three economic hubs. As a starting point in advancing its investment paradigm and leveraging investment and economic growth, the EC should emulate these provinces in terms of planning and reporting.

7.5.1 MODELS FROM OTHER PROVINCES

The researcher identified investment excellence among the three economic hubs in SA (Gauteng, KwaZulu-Natal and the Western Cape) and visited their investment agencies. This was sparked by the study respondents' recommendation that the EC establish its own investment agency due to the perceived failure of the ECDC to promote investment in the province.

The visits revealed that the agencies in these provinces set clear investment priorities and are efficient in attracting investment. There is also a high level of collaboration amongst the role players (government, the private sector, funders and municipalities).

The researcher visited WESGRO, the Ekurhuleni Investment Centre and Trade and Investment KwaZulu-Natal (TIKZ). The DTI's InvestSA One-Stop Shop had not been launched at the time of the study although it was operational, and was not included.

These investment agencies are spearheading one-stop shops that combine different entities for the ease of investors. Gauteng is ahead of the pack, with its entities including the Department of Home Affairs, SARS and CIPC.

WESGRO

WESGRO is the official tourism, trade and investment promotion agency for the Western Cape. It consists of five units: Tourism, Trade, Investment Promotion, Research, Film Media and the Convention Bureau. The agency raises capital for private sector initiatives through its links with banks. Its red tape unit is specifically designed to deal with any obstacles confronting investors and is even used by the premier's office. It promotes strong collaboration between the City of Cape Town and the private sector (banks, universities and business). WESGRO also engages with LED managers within district municipalities. Political leaders do not have any influence in the running of the agency.

The role of WESGRO is to attract investment in the Western Cape in the four universities, tourism, and agriculture, to name but a few. Its strategic focus for the next five years is tourism, oil and gas and agro-processing (WESGRO, 2016).

WESGRO also has a dedicated research unit that provides market intelligence to existing, new and potential investors. Investment attraction is a fast-paced environment and the agency employs educated, skilled and dynamic individuals who understand the province's investment vision. The agency prides itself on its clean audits and comprehensive reporting that details achievements, targets, pipeline projects, and jobs created.

The WESGRO official who is from the EC was asked how that province could improve its rate of investment. The following suggestions were made:

- Good governance, which is essential for resource efficiency.
- Accountable leadership at all levels and consequences for non-compliance.

- Investing in technology and putting the right systems in place.
- Sound strategic leadership and a clear vision.
- The EC must employ people with the right skills.

EKURHULENI INVESTMENT CENTRE (EIC)

This centre is the investment wing of Ekurhuleni Metro. It works closely with the Gauteng Investment Centre, an initiative of the Gauteng Growth and Development Agency. A team of dedicated and skilled individuals leads the agency; their strategic focus is expanding the metro's revenue by attracting inward domestic and foreign investment and thus contributing to Gauteng's economic growth. The agency aims to attract and retain investment and promote industrial expansion to grow the economy and create sustainable job opportunities for the majority of the city's population (City of Ekurhuleni, 2017).

The Ekurhuleni metro has a clear investment plan, and defined steps to attract investment in clearly defined sectors. Its annual investment target is R6.5 billion. The recently launched Ekurhuleni Aerotropolis is an urban development concept with an airport at its core, linking it to global markets. The EIC collaborates closely with the key role players in the province (City of Ekurhuleni, Gauteng provincial government and the Airports Company of South Africa). The 30-year Ekurhuleni Aerotropolis Master Plan focuses on a unique investment trajectory that will leverage key identified sectors to grow the economy of the city.

TRADE AND INVESTMENT KWAZULU-NATAL (TIKZN)

TIKZN is a trade and inward investment promotion agency to promote the province of KwaZulu-Natal as an investment destination and facilitate trade by assisting local companies to access international markets. The agency develops and packages investment opportunities in the province by providing professional services to clientele, brands and markets KwaZulu-Natal as an investment destination, retains and expands trade and export activities and links opportunities to the developmental needs of the KwaZulu-Natal community (TIKZN, 2017). TIKZN has also launched its own master

Aerotropolis for the next 10-25 years that is expected to yield a massive investment of over R100 billion.

GAUTENG GROWTH AND DEVELOPMENT AGENCY (GGDA)

The GGDA aims to grow the economy by positioning Gauteng as a globally competitive city (GGDA, 2016) through facilitating trade and investment in strategic economic infrastructure and social transformation. Its mission is to position Gauteng as a leading global city within the Southern African region (GGDA, 2016)

The GGDA works in strong collaboration with national government and public entities such as SARS, to create a business environment conducive for multinationals, large local companies, banks and SMMEs. This entails engaging with national government to propose regulatory changes.

Aerotropolis theories

The three economic hubs in SA have started thinking big in terms of investment. Gauteng and KwaZulu-Natal have both presented a draft master plan for comment and a plan has been adopted to launch the Western Cape aerotropolis (Kasarda, 2015). In the EC, the Coega IDZ would be an appropriate site for such a development.

This new strategic global approach centres on the airport area. An aerotropolis can be defined as an urban sub-region whose infrastructure, land use, and vibrant economy are within an airport area. It offers speedy and efficient connectivity to suppliers, clients and businesses nationally and internationally (Kasarda, 2015). Ekurhuleni and KwaZulu-Natal are looking at massive investment of above R100 billion in the next 10-20 years ((EDTEA), 2016).

Dedicated and bold political leadership would be required to establish an aerotropolis in the EC. It would require strong collaboration with IDZs, government departments, metros, provinces and the international community, particularly countries that already have airport cities such as Dubai, China, The Netherlands, and the USA to mention but a few.

7.5.2 INVESTMENT FORECASTING

This research study set out to understand the investment gap in the EC Province and to forecast the required investment rate to meet the NDP's investment target. Experience in developed countries has shown that economic growth is highly dependent on the rate of technological progress (Donsbusch et al., 2014). The endogenous growth model states that technological progress depends on savings, particularly investment directed toward human and physical capital. The classical growth model notes that high growth economies usually invest 30% - 35% of their GDP. The NPC diagnostic report and the NDP identified low investment trends in SA from 1995 to 2012, and set a target of 30% by 2030. The NDP thus places high priority on public investment and 'crowd-in' private investment, particularly in export industries (N. P. Commission, 2013). Private investment is to be leveraged through strategic government-industry partnerships in priority industries (E. C. P. Commission, 2013). South Africa's GFCF averaged 19% to the country's GDP from 1995 to 2014, and this figure is forecast to increase to an average of about 20% in 2019 (WorldBank, 2014), while Investec forecast 21% (Kaplan, 2013).

The DEDEAT's 2014 socio-economic review and outlook indicated that GFCF of between 20% and 25% of GDP in the EC would be a suitable target to achieve the required expansion of infrastructure and productive capacity. The provincial GFCF target is lower than that in the NDP and the global target and would not change the province's socio-economic dynamics. The Eastern Cape Vision 2030 or PDP does not state the required investment target, even though it flags investment for inclusive economic growth as low.

The literature shows that the EC suffers an investment gap; however, the DEDEAT, which is the main investment and economic driver of development in the province, does not put a figure to this gap. The forecast is calculated from the perspective of two equations, with a bias towards the NDP. The estimated investment gap using two possible equations is:

Investment Gap using the NDP target:..... (1)

Investment Gap = Target investment – Current Investment

Investment Gap = 30% - 19 %

= 11%

Econometrics Investment gap Calculation

Where Y= GDP growth Rates

a = constant

b= coefficients that determine the rates of GDP growth in the Eastern Cape economy

55.19= 4.996x

x= 11.05%

Investment Gap using the EC Socio-Economic Research Outlook target:... (2)

Investment Gap = Target investment – Current Investment

Investment Gap = 25%-19%

= 6%

Is it fair to say that the EC must advance its investment paradigm looking at trends and prospects while it relies entirely on government and has a very small private sector? Under-investment, the investment gap and the challenges confronting the province present an opportunity to do things differently, and the EC could be a role model to inspire other provinces and regions with similar dynamics. The only way for the province to advance its investment rate is to increase the rate to 11.05%; any lesser percentage should close the current gap.

7.6 PROPOSED EASTERN CAPE PROVINCIAL INVESTMENT MODEL

The literature review and the quantitative and qualitative research findings showed that the EC is battling to attract investment. The NPC recognised the problem of low investment in SA, without explaining its determinants and set a 30% investment target in the NDP (Mike, 2013). The PDP flagged investment as a key issue to achieve a

growing, inclusive and equitable economy. The investment gap confirms the problem in the province, in the form of century-long infrastructure backlogs, under-investment in rural municipalities, and a lack of economic and social infrastructure. The province does not have an investment model and different levels of government invest haphazardly.

The model emerged from the study's problem identification, further validated by its findings. It could help to close the investment gap and it contributes to the body of knowledge. The model is designed to assist the province to scale-up big investments with the highest multiplier effect (as a way to advance current investment initiatives). It proposes a different way of focusing on investment. Different pillars are identified to attract investment and the steps in implementation and monitoring and evaluation mechanisms are set out. The model emphasises the need for collaboration between the public and private sectors to attract investment. The interconnection of the two sectors and FDI offers an advantage in sourcing development finance, as well as improved mechanisms to attracting inward investment and offers useful pointers on defusing current investment constraints. Such interconnectedness will also assist provincial public sector entities to attract investment that will boost economic growth and improve citizens' lives. The study presents the proposed investment model for the EC.

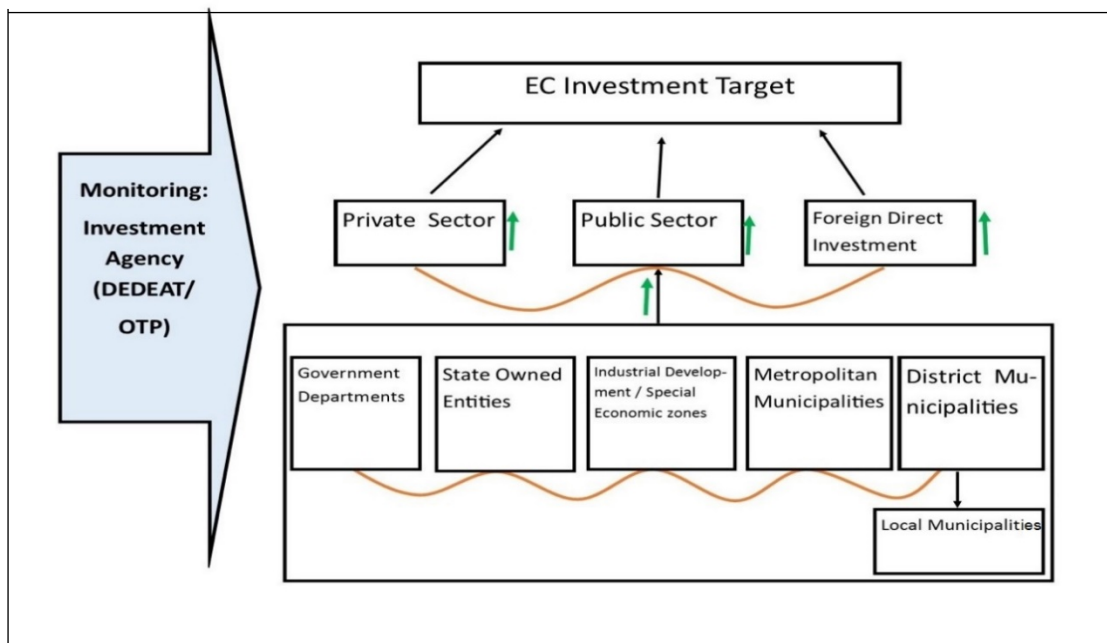


Figure 7-2: Investment Model

7.6.1 EC INVESTMENT TARGET

The starting point should be an agreed EC investment target spread across the three sectors. The answer to the provincial investment deficit lies in the province being able to intervene and innovate from the bottom up rather than the top down. A higher rate of investment is possible in SA given strategic and intelligent public sector investment that crowds in private investment. A higher rate of investment is certainly possible for EC; the key is to invest intelligently with a strategic focus on economic and social capital investment. This is heavily dependent on strong and meaningful partnerships with the private sector, curbing rampant corruption, policy certainty, and strong political leadership in all spheres of government coupled with long-term growth confidence (October, 2015).

7.6.2 PRIVATE SECTOR, PUBLIC SECTOR AND FOREIGN DIRECT INVESTMENT (FDI)

The three feeders to the provincial target would be the private sector, public sector and FDI. These sectors are interlinked as shown by the curved arrow. For the province to achieve the investment target, the three sectors need to increase the annual investment rate.

The Private Sector: the EC government needs to work with the entire private sector to increase its annual investment. This requires that the province address this sector's concerns and build trust between business and government. For the province to attract investment, it needs to understand its determinants and create an appropriate environment.

Public Sector: the role of the public sector is vital as it holds all the sectors together. It operates at many levels, including government departments, SOEs, IDZs, SEZs, and metropolitan, district and local municipalities. The key to achieving investment targets is intergovernmental relations coupled with productivity. All spheres of government should set investment targets, as they are the implementers of government programs.

All the departments and entities reporting to government and municipalities should feed in to the model and should report on outcomes relevant to the plan. The model should be informed by the provincial investment strategy. Although some respondents described the Coega and East London IDZs as examples of negative investment due to perceived low returns on investment, these IDZs have made positive strides in investment attraction. A total of 24 737 jobs, against a target of 13 234 have been created through the IDZs and the province is targeting 14 investments with a value of R 2.237 billion in two IDZs (Somyo, 2015). Thus far, the EC does not have an investment promotion plan. The interconnectedness of public sector departments and feeder entities means that the EC can leverage on the expertise of the IDZs.

Foreign Direct model (FDI): FDI presents many opportunities, especially when there is limited public and private domestic investment. The respondents noted that public and private sector investment as well as FDI are required to close the investment gap in the EC.

DEDEAT/ OTP: The bold green arrow emphasises the overarching monitoring role that should be played by the DEDEAT and the OTP.

While SA's intergovernmental systems are complex, this should not be used as an excuse for the blurred lines of responsibility. The performance monitoring and evaluation department in the presidency was meant to tighten accountability in government departments (N. P. Commission, 2013). The OTP and DEDEAT need to play a primary role in this regard. The success of the model will lie in strong state capabilities to enhance productivity, resolve bottlenecks, implement positive policies and understand the determinants of investment.

7.7 LIMITATIONS OF THE STUDY AND AREAS FOR FURTHER RESEARCH

This study investigated the reasons for the low rate of investment in the EC Province. It focused on GFCF (investment) by the public and private sectors and FDI.

The study was restricted to the EC Province and its findings cannot be generalised to other provinces. It is thus recommended that similar studies be conducted in SA's other eight provinces.

Based on the study's findings, the following topics are suggested for further research:

- How to build strong political leadership.
- How to build a strong government administrative system.
- Inadequate state support, particularly for backward regions.
- What is the role of traditional chiefs in modern society?

7.8 CHAPTER SUMMARY

This chapter presented the conclusion and recommendations arising from the study's findings, the study's limitations and suggestions for further research.

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APPENDICES

APPENDIX A QUANTITATIVE QUESTIONNAIRE

QUESTIONNAIRE

The questionnaire is composed of two sections; questionnaire for the participants public sector and private sector.

Questionnaire to Public Sector

- Why rates of private investment have been low, and what can be done to increase it?
- How much is the yearly investment increase or average over the years?
- Which sectors have attracted a bigger share of investments within the province?
- What percentage of GDP, budget surplus does the province reinvest?
- Is the province investment model/framework interlinked with National, Metro`s, Private sector, SOE`s and District municipalities?
- Which were the higher investment growth years and what were the underpinnings of that?
- Ascertain if efficacy in utilisation of investments funding, grants has an impact on investment growth.
- Ascertain if there is a relationship between skills and investments attraction
- Ascertain Relationship between Political leadership and investment growth
- What are the factors hampering Public and Private Investment growth?
- Ascertain factors that have promoted investments in the province so far

Questionnaire on:	No
<p>Project Title: Advancing Gross Fixed Capital Formation (Investment) Paradigm in the Eastern Cape Province of South Africa: Historical Trends and Prospects.</p>	

	RESEARCHER	SUPERVISOR	UNIVERSITY RESEARCH OFFICE
Full Name	Bhasela Yalezo	Dr Gerry Bokana	Prem Mohun
School	Graduate School of Business	Economics and Finance	HSS Research Office
Campus	Westville	Westville	Westville
Proposed Qualification	Doctor of Business Administration (DBA)		
Contact details	073 187 4275/ 031-260 3078	031-260 7183	0312604557
Email address	Yalezob@ukzn.ac.za mabhaso@gmail.com	Bokanakg@ukzn.ac.za	mohunp@ukzn.ac.za

Note to the Respondent:

- 4 We need your help to understand the “perceptions of stakeholders on Advancing Gross Fixed Capital Formation Paradigm in the Eastern Cape Province of South Africa: Historical Trends, Prospects”
- 5 We will really appreciate it if you can please fill this questionnaire as honestly as possible.
- 6 Although we would like you to help us, you do not have to take part in this survey and may withdraw from it at any time.
- 7 If you do not want to take part, just hand in the blank questionnaire at the end of the survey session.
- 8 What you say in this questionnaire will remain private and confidential. No one will be able to trace your opinion back to you as a respondent.
- 9 Your participation is voluntary and there is no penalty if you do not participate in the study.

DECLARATION OF CONSENT

I..... (Full Name) hereby confirm that I have read and understand the contents of this letter and the nature of the research project has been clearly defined prior to participating in this research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

Participant's

Signature.....

Date.....

Respondent Number

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Select the option that is most applicable to you

Section A: Demographics

1. Are you from the Eastern Cape Province or do you work in the Eastern Cape Province?

Yes		No	
-----	--	----	--

(If the answer is No, please DO NOT complete this survey)

4 Gender

Male		Female	
------	--	--------	--

5 Age

Below 18	18 – 25	26 – 33	34 – 41	Above 41

4. Race

Black	White	Coloured	Indian	Other: please specify _____

Section B

Indicate your agreement that the following factors would entice or propel you to invest in the province

FACTOR	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.11 Political willingness to make decisions on investment					
1.12 Investment by government in the economic infrastructure					
1.13 improved governance in the province					
1.14 Support from government					
1.15 Investment incentives					
1.16 Policy certainty					
1.17 Higher savings rate across the country					
1.18 Higher return on Investment					

1.19 Availability of skilled labour					
1.10 Investment by government in Health					

Indicate your agreement that the following factors contributed to low investment trends in the province

FACTOR	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
2.10 Lack of sufficient political will					
2.11 Lack of skilled labour					
2.12 Lack of sufficient funding					
2.13 Lack of infrastructure					
2.14 Lack of forward planning and implementation					
2.15 Lack of monitoring and evaluation by government					
2.16 Lack of efficiency in spending investment funding and grants					

FACTOR	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
2.17 Low per capita income levels across the province					
2.18 Challenges related to Land reform					

Indicate your agreement that the following actions will attract more investment in the province

ACTION	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
5.1 Increase in fiscal budget allocation to province					
5.2 Strong implementation of plans and policies by government					
5.3 Strengthening of the political will					
5.4 Acceleration of the formation of public - private partnerships					
5.5 Increase in private sector investment on infrastructure					

5.6 Increase in public sector Investment on infrastructure					
5.7 Attraction of foreign direct investment					
5.8 Increase in the skills base of the province					
5.9 Involvement of the chiefs and the community in attracting investments					
5.10 Establishment of a provincial investment agency					
5.11 Increase in the role of organised labour and civil society in attracting investment					
5.12 Efficient investment on funding by government					
5.13 Investing by the province in its natural resources (Land, tourism, Beaches, culture heritage)					

Provincial Investment Gap and target

Do you think the province will reach the 30% National Development Plan investment target by 2030?

Yes	
No	

Is there any investment model which is currently used by the province?

Yes	
No	
Don't know	

If NO/DON'T KNOW to q4.2, skip to q4.3

If YES to q4.2:

4.2.1 Are/were your investment decisions informed by the model?

Yes	
No	

4.2.2 Indicate your agreement that the following items are weaknesses of the current model

WEAKNESSES	Strongly disagree	Disagree	Neutral	Agree	Strongly agree

4.2.2.1 The current model is not interlinked with					
4.2.2.2 There are no specific time frames					
4.2.2.3 The current model is not monitored by					
4.2.2.4 There are no specific investment targets					

4.3 Do you think there is an investment gap in the province?

Yes	
No	

4.4 Are you aware of the provincial investment target?

Yes	
No	

If YES to 4.4:

4.4.1 Does the provincial investment target influence your investment thinking on whether to increase the rate of your investment or not?

Yes	
No	

4.5 What is your yearly investment forecast from now to 2030? (Select ONE option only)

Below 5%	5-10%	11-15%	Above 15%

4.6 Rate on a scale from 1 to 5 (1 = not at all important; 5 = Very important) the importance of each of the following investments in the province.

Investment in...	Importance
4.6.1 Agriculture, forestry, fishing and mining	
4.6.2 Manufacturing, transport, logistics, agro-processing	
4.6.3 Bulk & Economic infrastructure	
4.6.4 Buildings, & Industrial hubs	
4.6.5 Health and Education	

4.7 Select what percentage increase you think would close the gap in the Eastern Cape Province in the different types of investment given below

Investment percentage increase per year	< 5%	5-10%	11-15%	16-20%	>20%
4.7.1 An increase in public sector investment of...					
4.7.2 An increase in private sector investment of...					

4.7.3 An increase in foreign direct investments of...					
---	--	--	--	--	--

4.8 Indicate your agreement that the following investment approaches would close the investment gap in the Eastern Cape Province

Investment approaches	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Increased public sector Investment					
Increased private sector Investment					
Increased foreign direct investments					
A dedicated provincial agency to deal with Investment promotion in the province					
Involvement of traditional leaders in promoting investment in the province					

5. Indicate your agreement with the following statements regarding the role of Political leadership in attracting investment growth

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
5.5 There is a strong relationship between Political					
5.6 There is adequate					
5.7 The current					
5.8 The current					

Thank you for your time

APPENDIX B QUALITATIVE QUESTIONANIRE

Structured/ Semi-structured Interview/ Focus Group Questions



Survey Questionnaire on Advancing Gross Fixed Capital Formation Paradigm in the Eastern Cape Province	No.
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Name of Researcher and Contact Details: Bhaso, Room G01D, first floor, J-Block Building, Westville Campus, UKZN, Durban, Tel. No. 031-260 7038

Independent Person and Contact Details: Dr Gerry Bokana, Shepstone Building, Level 2, Room 212, Howard College Campus, UKZN, Durban, Tel. No. 031-260 7183

Note to the Respondent:

- We need your help to understand the “perceptions of stakeholders on advancing gross fixed capital formation paradigm in the Eastern Cape Province”.
- We will really appreciate it if you can please fill this questionnaire as honestly as possible.
- Although we would like you to help us, you do not have to take part in this survey and may withdraw from it at any time.
- If you do not want to take part, just hand in the blank questionnaire at the end of the survey session.
- What you say in this questionnaire will remain private and confidential. No one will be able to trace your opinion back to you as a respondent.

Thank you for taking the time to participate in this survey

DECLARATION OF CONSENT

I..... (Full Name) hereby confirm that I have read and understand the contents of this letter and the nature of the research project has been clearly defined prior to participating in this research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

Participants

Signature.....

Date.....

Respondent I.D

--	--	--

Select the option that is most applicable to you

Section A: Demographics

1. Are you from the Eastern Cape Province or do you work in the Eastern Cape Province?

Yes	
No	

(If the answer is No, please DO NOT complete this survey)

2. Gender

Male	
Female	

3. Age

Below 18	18 – 25	26 – 33	34 – 41	Above 41

4. Race

Black	White	Coloured	Indian	Other: please specify

Section B: Questions

QRQ 1: Why rates of Investment have been low.

QRQ 2: What are the contributing factors to low investment?

QRQ3:1 In your opinion is there an investment gap in the province?

QRQ3.2 what is your understanding of the investment target for national and the province?

QRQ3.3 In your opinion is the province under investing and

QRQ3.4 Why is the province underinvesting

QRQ3.4 What can be done to increase investment in the province?

QRQ3.4 What are the weakness of the current investment model of the province

QRQ4.1 How would you characterise the political leadership role in attracting and growing investment in the province

QRQ4.2 What role should Political leadership play in attracting investment in the province?

Additional Questions:

Which sectors must the province concentrate on to boost investment?

What can be done better by the province?

What can be done to accelerate investments?

What is the role of chiefs in promoting investments?

What is the role of Universities in attracting investments in the province?

Why people with skills are leaving the province

Other points questions

APPENDIX C REPORT ON STATISTICAL ANALYSIS –

Thereafter appropriate inferential analysis will be done. For each method of analysis, I will give the output from SPSS and show you how to report the results in the correct fashion. Once I have shown you this, I will leave the rest for you to report.

Any reporting that you can copy and paste into your document will be highlighted in **turquoise**. Instructions/explanations to you will be in **yellow**. THESE MAY NOT BE PASTED INTO YOUR WORK. All tables of analysis output (that are relevant) from SPSS must be put onto appendices and NOT the chapter.

At the start of the results chapter/or in the methodology section, you need to detail which stats tests are used in the analysis. These are outlined below for you.

Tests used in the analysis (this info needs to be included in the chapter)

- Descriptive statistics including means and standard deviations, where applicable. Frequencies are represented in tables or graphs.
- Chi-square goodness-of-fit-test: A univariate test, used on a categorical variable to test whether any of the response options are selected significantly more/less often than the others. Under the null hypothesis, it is assumed that all responses are equally selected.
- Wilcoxon Signed Ranks test: A non-parametric test used to test, in this study, whether the average value is significantly different from a value of 3 (the central score). This is applied to Likert scale questions. It is also used in the comparison of the distributions of two variables.
- Chi-square test of independence: Used on cross-tabulations to see whether a significant relationship exists between the two categorical variables represented in the cross-tabulation. When conditions are not met Fisher's exact test is used.
- Regression analysis: Linear Regression estimates the coefficients of the linear equation, involving one or more independent variables that best predict the value of the dependent variable.

- Kruskal Wallis Test: Non parametric equivalent to ANOVA. A test for several independent samples that compares two or more groups of cases in one variable.
- Mann Whitney U Test: Non parametric equivalent to the independent samples t-test.
- Binomial test: Tests whether a significant proportion of respondents select one of a possible two responses. This can be extended when data with more than 2 response options is split into two distinct groups.
- Pearson's correlation: Correlations measure how variables or rank orders are related. Pearson's correlation coefficient is a measure of linear association.
- One sample t-test: Tests whether a mean score is significantly different from a scalar value.
- Independent samples t-test: A test that compares two independent groups of cases.
- Paired samples t-test: A test that compares the means of two variables for a single group.

Tests used in this study are in black

Demographics

EC resident/worker

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	152	100.0	100.0	100.0

gender

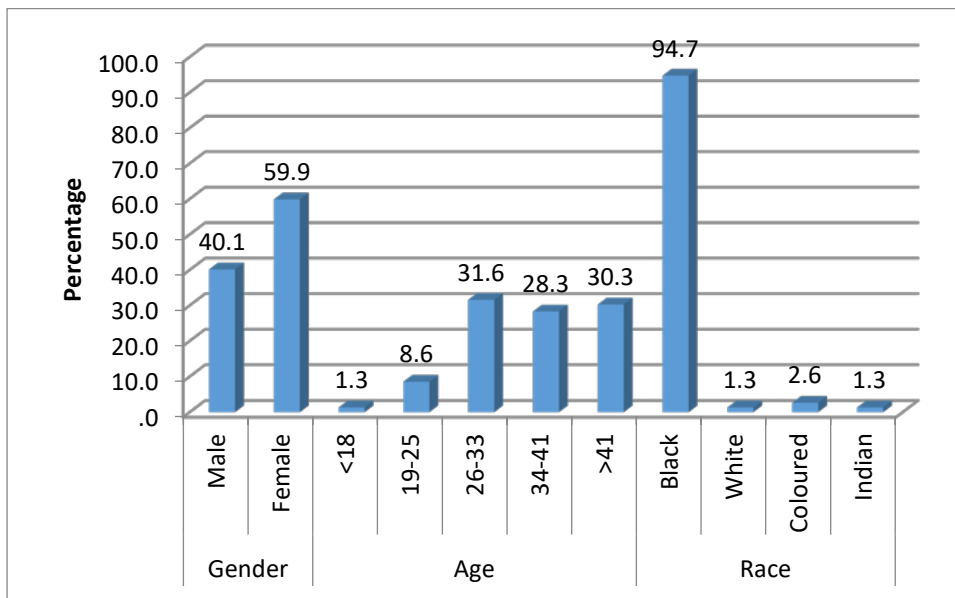
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	61	40.1	40.1	40.1
Female	91	59.9	59.9	100.0
Total	152	100.0	100.0	

age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <18	2	1.3	1.3	1.3
19-25	13	8.6	8.6	9.9
26-33	48	31.6	31.6	41.4
34-41	43	28.3	28.3	69.7
>41	46	30.3	30.3	100.0
Total	152	100.0	100.0	

race

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Black	144	94.7	94.7	94.7
White	2	1.3	1.3	96.1
Coloured	4	2.6	2.6	98.7
Indian	2	1.3	1.3	100.0
Total	152	100.0	100.0	



Section B

For each question I will give a frequency table. Where appropriate, I will do a graph – if you need specific graphs let me know.

Then inferential analysis will be completed on each question where applicable.

Likert scale questions – one sample t-test is applied to test the average score against a neutral score of '3' for significant agreement/disagreement.

1.1 Political willingness to make decisions on investment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	2	1.3	1.3	1.3
Disagree	4	2.6	2.6	3.9
Neutral	8	5.3	5.3	9.2
Agree	47	30.9	30.9	40.1
Strongly agree	91	59.9	59.9	100.0
Total	152	100.0	100.0	

1.2 Investment by government in the economic infrastructure

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	1	.7	.7	.7
Neutral	5	3.3	3.3	3.9
Agree	40	26.3	26.3	30.3
Strongly agree	106	69.7	69.7	100.0
Total	152	100.0	100.0	

1.3 improved governance in the province

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	1	.7	.7	.7
Neutral	3	2.0	2.0	2.6
Agree	43	28.3	28.3	30.9
Strongly agree	105	69.1	69.1	100.0
Total	152	100.0	100.0	

1.4 Support from government

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Neutral	8	5.3	5.3	5.3
Agree	66	43.4	43.4	48.7
Strongly agree	78	51.3	51.3	100.0
Total	152	100.0	100.0	

1.5 Investment incentives

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	1	.7	.7	.7
Neutral	6	3.9	3.9	4.6
Agree	45	29.6	29.6	34.2
Strongly agree	100	65.8	65.8	100.0
Total	152	100.0	100.0	

1.6 Policy certainty

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	1	.7	.7	.7
Neutral	17	11.2	11.2	11.8
Agree	49	32.2	32.2	44.1
Strongly agree	85	55.9	55.9	100.0
Total	152	100.0	100.0	

1.7 Higher savings rate across the country

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	5	3.3	3.3	3.9
Neutral	34	22.4	22.4	26.3
Agree	65	42.8	42.8	69.1
Strongly agree	47	30.9	30.9	100.0
Total	152	100.0	100.0	

1.8 Higher return on Investment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	2	1.3	1.3	2.0
Neutral	8	5.3	5.3	7.2
Agree	35	23.0	23.0	30.3
Strongly agree	106	69.7	69.7	100.0
Total	152	100.0	100.0	

1.9 Availability of skilled labour

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	2	1.3	1.3	1.3
Neutral	2	1.3	1.3	2.6
Agree	54	35.5	35.5	38.2
Strongly agree	94	61.8	61.8	100.0
Total	152	100.0	100.0	

1.10 Investment by government in Health and Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Neutral	11	7.2	7.2	7.9
Agree	51	33.6	33.6	41.4
Strongly agree	89	58.6	58.6	100.0
Total	152	100.0	100.0	

Test – one sample t-test

The tables below are output from SPSS and only used for interpretation and reporting. They do NOT go into the chapter. Significant results that must be reported are in red

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
1.1 Political willingness to make decisions on investment	152	4.45	.821	.067
1.2 Investment by government in the economic infrastructure	152	4.65	.578	.047
1.3 improved governance in the province	152	4.66	.553	.045
1.4 Support from government	152	4.46	.597	.048
1.5 Investment incentives	152	4.61	.600	.049
1.6 Policy certainty	152	4.43	.716	.058
1.7 Higher savings rate across the country	152	4.00	.854	.069
1.8 Higher return on Investment	152	4.60	.712	.058
1.9 Availability of skilled labour	152	4.58	.593	.048
1.10 Investment by government in Health and Education	152	4.49	.690	.056

One-Sample Test

		Test Value = 3					
						95% Confidence Interval of the Difference	
		t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
1.1	Political willingness to make decisions on investment	21.845	151	.000	1.454	1.32	1.59
1.2	Investment by government in the economic infrastructure	35.197	151	.000	1.651	1.56	1.74
1.3	improved governance in the province	36.948	151	.000	1.658	1.57	1.75
1.4	Support from government	30.177	151	.000	1.461	1.36	1.56
1.5	Investment incentives	32.998	151	.000	1.605	1.51	1.70
1.6	Policy certainty	24.707	151	.000	1.434	1.32	1.55

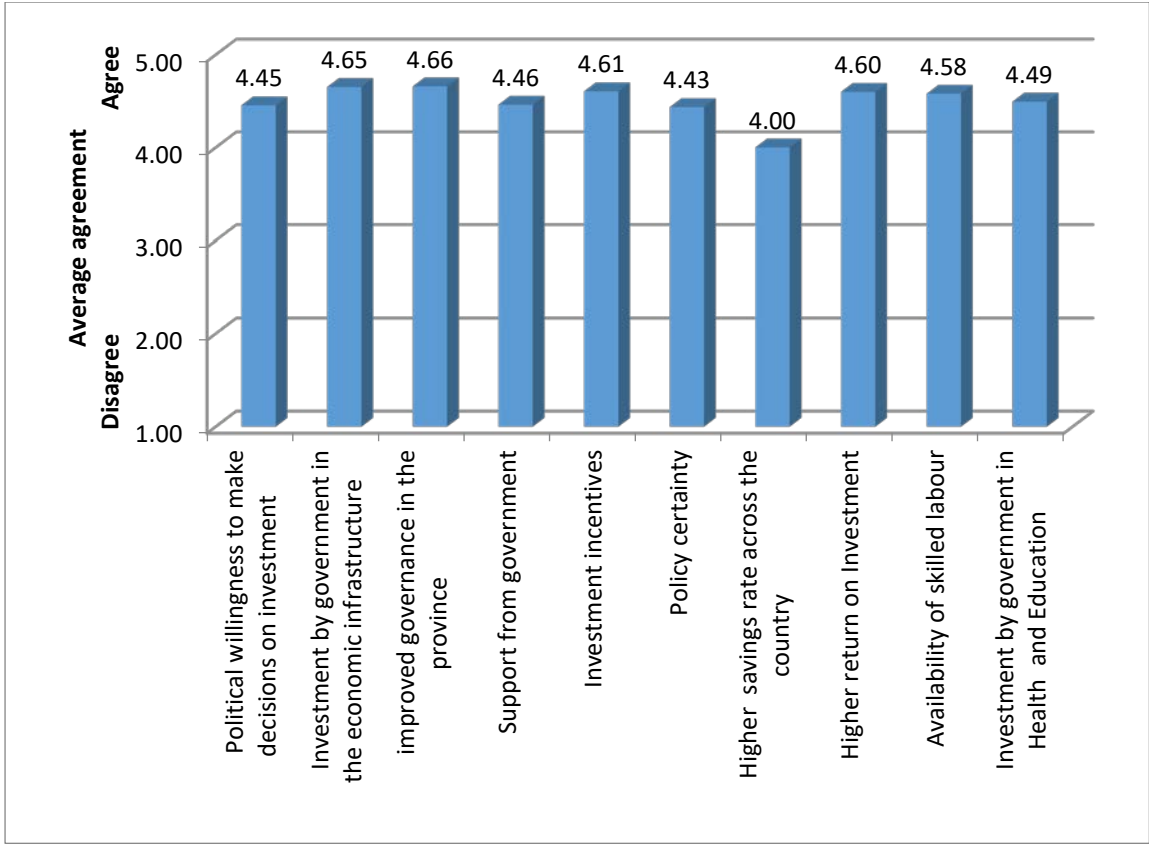
1.7	Higher savings rate across the country	14.445	151	.000	1.000	.86	1.14
1.8	Higher return on Investment	27.688	151	.000	1.599	1.48	1.71
1.9	Availability of skilled labour	32.842	151	.000	1.579	1.48	1.67
1.10	Investment by government in Health and Education	26.665	151	.000	1.493	1.38	1.60

In the table above all p values (Sig.) are <.05 and thus need reporting. [NOTE in SPSS a p value given as .000 is reported as p<.0005. a value of e.g. .016 is reported as p=.016]

For sig p values, look at the mean value in the top table to interpret agreement (if mean >3) and disagreement (if mean <3).

There is significant agreement that factors that would entice investment in the province are: political willingness to make decisions on investment (t (151) = 21.845, p<.0005); investment by Government in the economic infrastructure (t(151) = 35.197, p<.0005); etc continue...

Below I have graphed the average agreement scores for comparative purposes...



2.1 Lack of sufficient political will

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	6	3.9	3.9	4.6
Neutral	3	2.0	2.0	6.6
Agree	59	38.8	38.8	45.4
Strongly agree	83	54.6	54.6	100.0
Total	152	100.0	100.0	

2.2 Lack of skilled labour

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	2	1.3	1.3	1.3
Disagree	14	9.2	9.2	10.5
Neutral	18	11.8	11.8	22.4
Agree	64	42.1	42.1	64.5
Strongly agree	54	35.5	35.5	100.0
Total	152	100.0	100.0	

2.3 Lack of sufficient funding

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	3	2.0	2.0	2.0
Disagree	6	3.9	3.9	5.9
Neutral	13	8.6	8.6	14.5
Agree	67	44.1	44.1	58.6
Strongly agree	63	41.4	41.4	100.0
Total	152	100.0	100.0	

2.4 Lack of infrastructure

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	3	2.0	2.0	2.0
Disagree	1	.7	.7	2.6
Neutral	5	3.3	3.3	5.9
Agree	65	42.8	42.8	48.7
Strongly agree	78	51.3	51.3	100.0
Total	152	100.0	100.0	

2.5 Lack of forward planning and implementation

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	1	.7	.7	1.3
Neutral	1	.7	.7	2.0
Agree	68	44.7	44.7	46.7
Strongly agree	81	53.3	53.3	100.0
Total	152	100.0	100.0	

2.6 Lack of monitoring and evaluation by government

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	3	2.0	2.0	2.0
Neutral	5	3.3	3.3	5.3
Agree	46	30.3	30.3	35.5
Strongly agree	98	64.5	64.5	100.0
Total	152	100.0	100.0	

2.7 Lack of efficiency in spending investment funding and grants

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	1	.7	.7	1.3
Neutral	9	5.9	5.9	7.2
Agree	50	32.9	32.9	40.1
Strongly agree	91	59.9	59.9	100.0
Total	152	100.0	100.0	

2.8 Low per capita income levels across the province

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	14	9.2	9.2	9.9
Neutral	32	21.1	21.1	30.9
Agree	56	36.8	36.8	67.8
Strongly agree	49	32.2	32.2	100.0
Total	152	100.0	100.0	

2.9 Challenges related to Land reform

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	2	1.3	1.3	1.3
Disagree	9	5.9	5.9	7.2
Neutral	15	9.9	9.9	17.1
Agree	66	43.4	43.4	60.5
Strongly agree	60	39.5	39.5	100.0
Total	152	100.0	100.0	

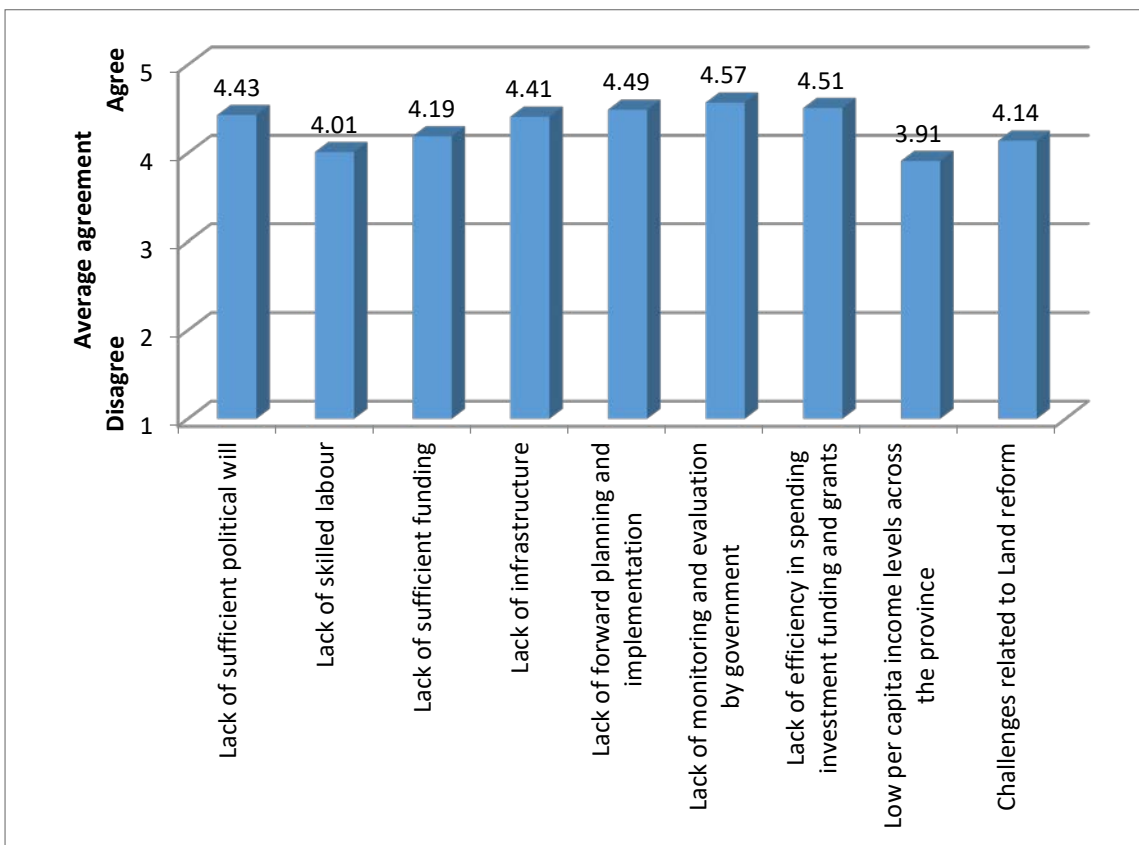
One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
2.1 Lack of sufficient political will	152	4.43	.777	.063
2.2 Lack of skilled labour	152	4.01	.983	.080
2.3 Lack of sufficient funding	152	4.19	.897	.073
2.4 Lack of infrastructure	152	4.41	.766	.062
2.5 Lack of forward planning and implementation	152	4.49	.620	.050
2.6 Lack of monitoring and evaluation by government	152	4.57	.657	.053
2.7 Lack of efficiency in spending investment funding and grants	152	4.51	.700	.057
2.8 Low per capita income levels across the province	152	3.91	.979	.079
2.9 Challenges related to Land reform	152	4.14	.914	.074

One-Sample Test

	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
2.1 Lack of sufficient political will	22.647	151	.000	1.428	1.30	1.55
2.2 Lack of skilled labour	12.704	151	.000	1.013	.86	1.17
2.3 Lack of sufficient funding	16.369	151	.000	1.191	1.05	1.33
2.4 Lack of infrastructure	22.646	151	.000	1.408	1.29	1.53
2.5 Lack of forward planning and implementation	29.710	151	.000	1.493	1.39	1.59
2.6 Lack of monitoring and evaluation by government	29.500	151	.000	1.572	1.47	1.68

2.7 Lack of efficiency in spending investment funding and grants	26.534	151	.000	1.507	1.39	1.62
2.8 Low per capita income levels across the province	11.434	151	.000	.908	.75	1.06
2.9 Challenges related to Land reform	15.355	151	.000	1.138	.99	1.28



3.1 Increase in fiscal budget allocation to province

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	3	2.0	2.0	2.0
Disagree	8	5.3	5.3	7.2
Neutral	27	17.8	17.8	25.0
Agree	53	34.9	34.9	59.9
Strongly agree	61	40.1	40.1	100.0
Total	152	100.0	100.0	

3.2 Strong implementation of plans and policies by government

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Neutral	2	1.3	1.3	2.0
Agree	30	19.7	19.7	21.7
Strongly agree	119	78.3	78.3	100.0
Total	152	100.0	100.0	

3.3 Strengthening of the political will

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	2	1.3	1.3	1.3
Neutral	6	3.9	3.9	5.3
Agree	35	23.0	23.0	28.3
Strongly agree	109	71.7	71.7	100.0
Total	152	100.0	100.0	

3.4 Acceleration of the formation of public-private partnerships

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	2	1.3	1.3	1.3
Disagree	6	3.9	3.9	5.3
Neutral	4	2.6	2.6	7.9
Agree	54	35.5	35.5	43.4
Strongly agree	86	56.6	56.6	100.0
Total	152	100.0	100.0	

3.5 Increase in private sector investment on infrastructure

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	6	3.9	3.9	3.9
Disagree	2	1.3	1.3	5.3
Neutral	6	3.9	3.9	9.2
Agree	44	28.9	28.9	38.2
Strongly agree	94	61.8	61.8	100.0
Total	152	100.0	100.0	

3.6 Increase in public sector Investment on infrastructure

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	2	1.3	1.3	1.3
Neutral	7	4.6	4.6	5.9
Agree	36	23.7	23.7	29.6
Strongly agree	107	70.4	70.4	100.0
Total	152	100.0	100.0	

3.7 Attraction of foreign direct investment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	2	1.3	1.3	2.0
Neutral	6	3.9	3.9	5.9
Agree	38	25.0	25.0	30.9
Strongly agree	105	69.1	69.1	100.0
Total	152	100.0	100.0	

3.8 Increase in the skills base of the province

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Neutral	3	2.0	2.0	2.0
Agree	50	32.9	32.9	34.9
Strongly agree	99	65.1	65.1	100.0
Total	152	100.0	100.0	

3.9 Involvement of the chiefs and the community in attracting investments

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	4	2.6	2.6	3.3
Neutral	11	7.2	7.2	10.5
Agree	60	39.5	39.5	50.0
Strongly agree	76	50.0	50.0	100.0
Total	152	100.0	100.0	

3.10 Establishment of a provincial investment agency

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	4	2.6	2.6	3.3
Neutral	15	9.9	9.9	13.2
Agree	54	35.5	35.5	48.7
Strongly agree	78	51.3	51.3	100.0
Total	152	100.0	100.0	

3.11 Increase in the role of organised labour and civil society in attracting investment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	2	1.3	1.3	1.3
Disagree	2	1.3	1.3	2.6
Neutral	15	9.9	9.9	12.5
Agree	71	46.7	46.7	59.2
Strongly agree	62	40.8	40.8	100.0
Total	152	100.0	100.0	

3.12 Efficient investment on funding by government

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	1	.7	.7	.7
Neutral	2	1.3	1.3	2.0
Agree	66	43.4	43.4	45.4
Strongly agree	83	54.6	54.6	100.0
Total	152	100.0	100.0	

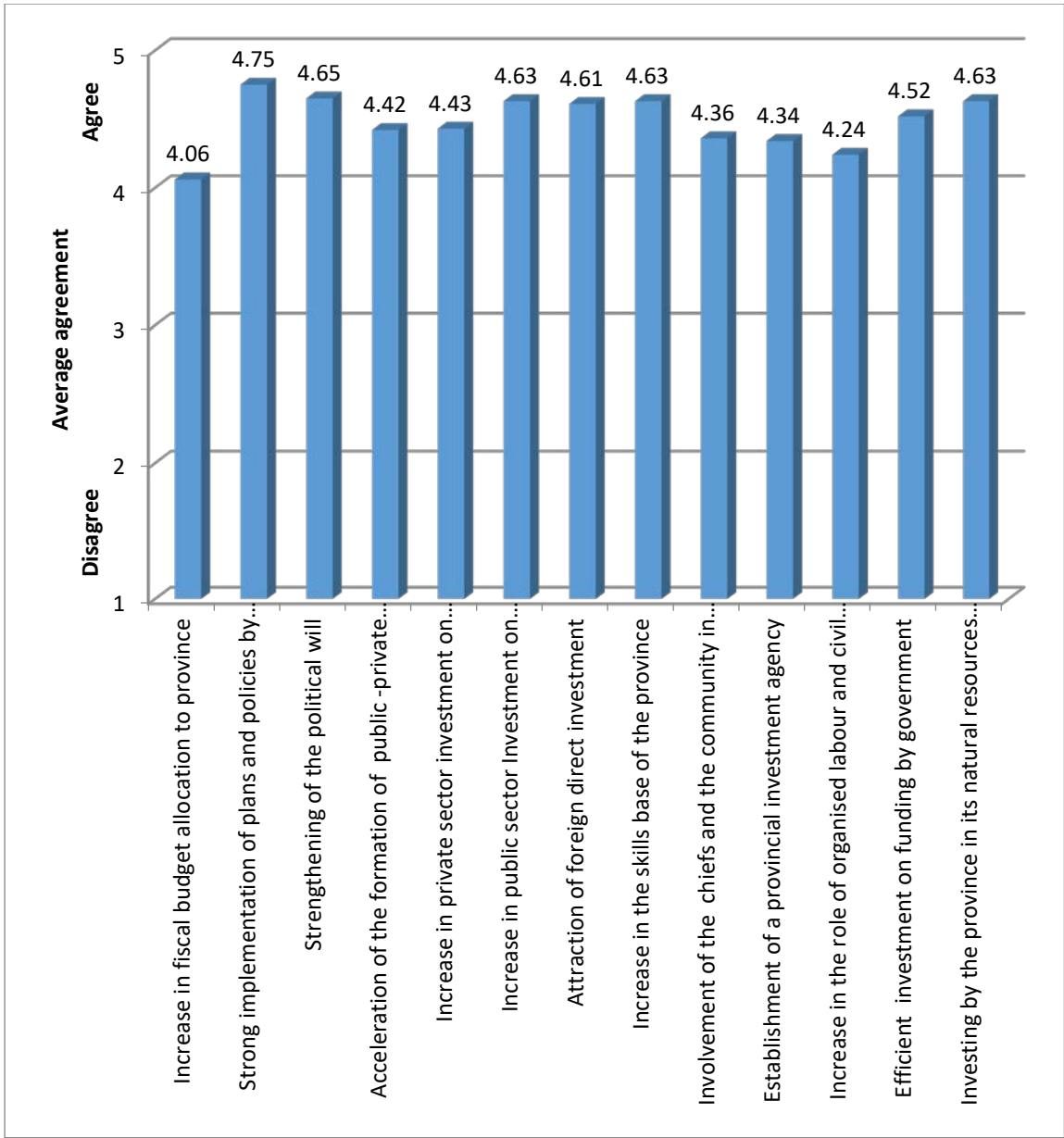
3.13 Investing by the province in its natural resources (Land, tourism, Beaches, culture heritage)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	1	.7	.7	1.3
Neutral	2	1.3	1.3	2.6
Agree	46	30.3	30.3	32.9
Strongly agree	102	67.1	67.1	100.0
Total	152	100.0	100.0	

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
3.1 Increase in fiscal budget allocation to province	152	4.06	.985	.080
3.2 Strong implementation of plans and policies by government	152	4.75	.543	.044
3.3 Strengthening of the political will	152	4.65	.623	.050
3.4 Acceleration of the formation of public -private partnerships	152	4.42	.834	.068
3.5 Increase in private sector investment on infrastructure	152	4.43	.940	.076
3.6 Increase in public sector Investment on infrastructure	152	4.63	.638	.052
3.7 Attraction of foreign direct investment	152	4.61	.692	.056
3.8 Increase in the skills base of the province	152	4.63	.523	.042
3.9 Involvement of the chiefs and the community in attracting investments	152	4.36	.784	.064
3.10 Establishment of a provincial investment agency	152	4.34	.815	.066

3.11 Increase in the role of organised labour and civil society in attracting investment	152	4.24	.789	.064
3.12 Efficient investment on funding by government	152	4.52	.563	.046
3.13 Investing by the province in its natural resources (Land, tourism, Beaches, culture heritage)	152	4.63	.618	.050



One-Sample Test

	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
3.1 Increase in fiscal budget allocation to province	13.259	151	.000	1.059	.90	1.22
3.2 Strong implementation of plans and policies by government	39.744	151	.000	1.750	1.66	1.84
3.3 Strengthening of the political will	32.703	151	.000	1.651	1.55	1.75
3.4 Acceleration of the formation of public -private partnerships	21.005	151	.000	1.421	1.29	1.55
3.5 Increase in private sector investment on infrastructure	18.817	151	.000	1.434	1.28	1.58
3.6 Increase in public sector Investment on infrastructure	31.553	151	.000	1.632	1.53	1.73
3.7 Attraction of foreign direct investment	28.598	151	.000	1.605	1.49	1.72

3.8 Increase in the skills base of the province	38.431	151	.000	1.632	1.55	1.72
3.9 Involvement of the chiefs and the community in attracting investments	21.312	151	.000	1.355	1.23	1.48
3.10 Establishment of a provincial investment agency	20.311	151	.000	1.342	1.21	1.47
3.11 Increase in the role of organised labour and civil society in attracting investment	19.430	151	.000	1.243	1.12	1.37
3.12 Efficient investment on funding by government	33.253	151	.000	1.520	1.43	1.61
3.13 Investing by the province in its natural resources (Land, tourism, Beaches, culture heritage)	32.431	151	.000	1.625	1.53	1.72

4.1 Do you think the province will reach the 30% National Development Plan investment target by 2030?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	23	15.1	15.1	15.1
No	129	84.9	84.9	100.0
Total	152	100.0	100.0	

Binomial Test

	Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
4.1 Do you think the province will reach the 30% National Development Plan investment target by 2030?	Group 1 No	129	.85	.50	.000 ^a
	Group 2 Yes	23	.15		
	Total	152	1.00		

a. Based on Z Approximation.

Report same as before

4.2 Is there any investment model which is currently used by the province?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	1	.7	.7	.7
No	52	34.2	34.2	34.9
Don't know	99	65.1	65.1	100.0
Total	152	100.0	100.0	

Test = chi-square goodness of fit test to test whether any response option is selected significantly more often than others.

Output tables for interpretation and reporting ONLY below

4.2 Is there any investment model which is currently used by the province?

	Observed N	Expected N	Residual
Yes	1	50.7	-49.7
No	52	50.7	1.3
Don't know	99	50.7	48.3
Total	152		

Test Statistics

	4.2 Is there any investment model which is currently used by the province?
Chi-Square	94.829 ^a
df	2
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 50.7.

Report as:

A significant number (99 (65.1%)) do not know if there is any investment model currently used by the province ($\chi^2 (2) = 94.829, p < .0005$).

ONLY ONE RESPONDENT RESPONDED TO THE FOLLOWING QUESTIONS- SEE BELOW...

4.2.1 Are/were your investment decisions informed by the model?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	1	.7	100.0	100.0
Missing System	151	99.3		
Total	152	100.0		

4.2.2.1 The current model is not interlinked with provincial/ government objectives

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	1	.7	100.0	100.0
Missing System	151	99.3		
Total	152	100.0		

4.2.2.2 There are no specific time frames aligned to the medium term strategic framework

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	1	.7	100.0	100.0
Missing System	151	99.3		
Total	152	100.0		

4.2.2.3 The current model is not monitored by government

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Agree	1	.7	100.0	100.0
Missing System	151	99.3		
Total	152	100.0		

4.2.2.4 There are no specific investment targets

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	1	.7	100.0	100.0
Missing System	151	99.3		
Total	152	100.0		

4.3 Do you think there is an investment gap in the province?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	150	98.7	98.7	98.7
No	2	1.3	1.3	100.0
Total	152	100.0	100.0	

Test = Binomial test – used in a dichotomous variable to test for a sig proportion selecting either yes or no.

Binomial Test

	Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
4.3 Do you think there is an investment gap in the province?	Group 1 Yes	150	.99	.50	.000 ^a
	Group 2 No	2	.01		
	Total	152	1.00		

a. Based on Z Approximation.

A significant 150 (99%) of the sample think there is an investment gap in the province ($p < .0005$).

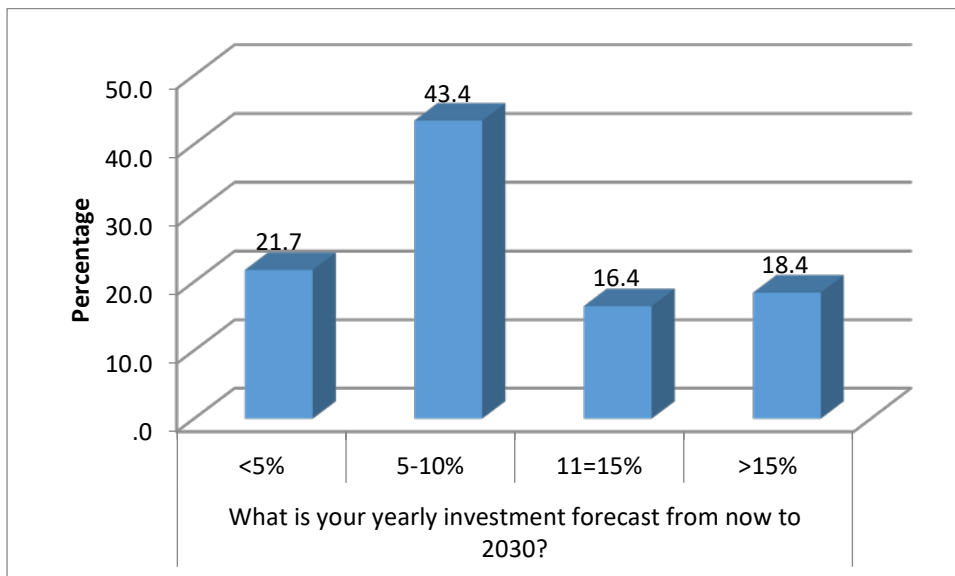
4.4 Are you aware of the provincial investment target?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	1	.7	.7	.7
No	151	99.3	99.3	100.0
Total	152	100.0	100.0	

Clearly a significant 151 (99.3%) responded that they are not aware of the provincial investment target.

4.5 What is your yearly investment forecast from now to 2030?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <5%	33	21.7	21.7	21.7
5-10%	66	43.4	43.4	65.1
11=15%	25	16.4	16.4	81.6
>15%	28	18.4	18.4	100.0
Total	152	100.0	100.0	



4.5 What is your yearly investment forecast from now to 2030?

	Observed N	Expected N	Residual
<5%	33	38.0	-5.0
5-10%	66	38.0	28.0
11=15%	25	38.0	-13.0
>15%	28	38.0	-10.0
Total	152		

Test Statistics

	4.5 What is your yearly investment forecast from now to 2030?
Chi-Square	28.368 ^a
df	3
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 38.0.

Importance of investment area...

4.6.1 Agriculture, forestry, fishing and mining

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	1	.7	.7	.7
2	5	3.3	3.3	3.9
3	9	5.9	5.9	9.9
4	34	22.4	22.4	32.2
5	103	67.8	67.8	100.0
Total	152	100.0	100.0	

4.6.2 Manufacturing, transport, logistics, agro-processing

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	3	2.0	2.0	2.0
2	12	7.9	7.9	9.9
3	19	12.5	12.5	22.4
4	34	22.4	22.4	44.7
5	84	55.3	55.3	100.0
Total	152	100.0	100.0	

4.6.3 Bulk & Economic infrastructure

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	1	.7	.7	.7
2	3	2.0	2.0	2.6
3	17	11.2	11.2	13.8
4	55	36.2	36.2	50.0
5	76	50.0	50.0	100.0
Total	152	100.0	100.0	

4.6.4 Buildings, & Industrial hubs

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	2	1.3	1.3	1.3
2	6	3.9	3.9	5.3
3	18	11.8	11.8	17.1
4	59	38.8	38.8	55.9
5	67	44.1	44.1	100.0
Total	152	100.0	100.0	

4.6.5 Health and Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	3	2.0	2.0	2.0
2	2	1.3	1.3	3.3
3	13	8.6	8.6	11.8
4	34	22.4	22.4	34.2
5	100	65.8	65.8	100.0
Total	152	100.0	100.0	

Test = one sample t-test..

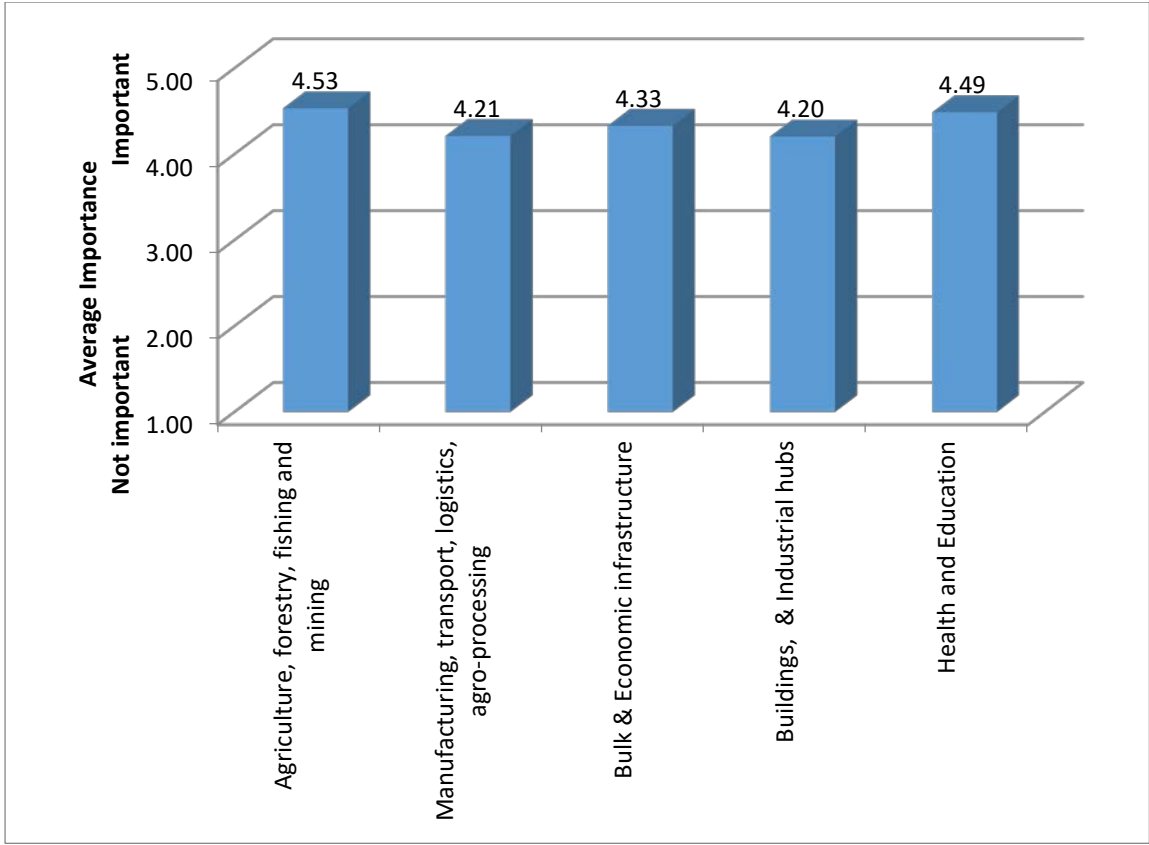
One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
4.6.1 Agriculture, forestry, fishing and mining	152	4.53	.805	.065
4.6.2 Manufacturing, transport, logistics, agro-processing	152	4.21	1.065	.086
4.6.3 Bulk & Economic infrastructure	152	4.33	.804	.065
4.6.4 Buildings, & Industrial hubs	152	4.20	.894	.073
4.6.5 Health and Education	152	4.49	.861	.070

One-Sample Test

	Test Value = 3						
						95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper	
4.6.1 Agriculture, forestry, fishing and mining	23.479	151	.000	1.533	1.40	1.66	
4.6.2 Manufacturing, transport, logistics, agro-processing	14.014	151	.000	1.211	1.04	1.38	
4.6.3 Bulk & Economic infrastructure	20.384	151	.000	1.329	1.20	1.46	
4.6.4 Buildings, & Industrial hubs	16.604	151	.000	1.204	1.06	1.35	
4.6.5 Health and Education	21.287	151	.000	1.487	1.35	1.62	

Because all mean value > 4, we can conclude that these areas are all significantly important...



4.7.1 An increase in public sector investment of...

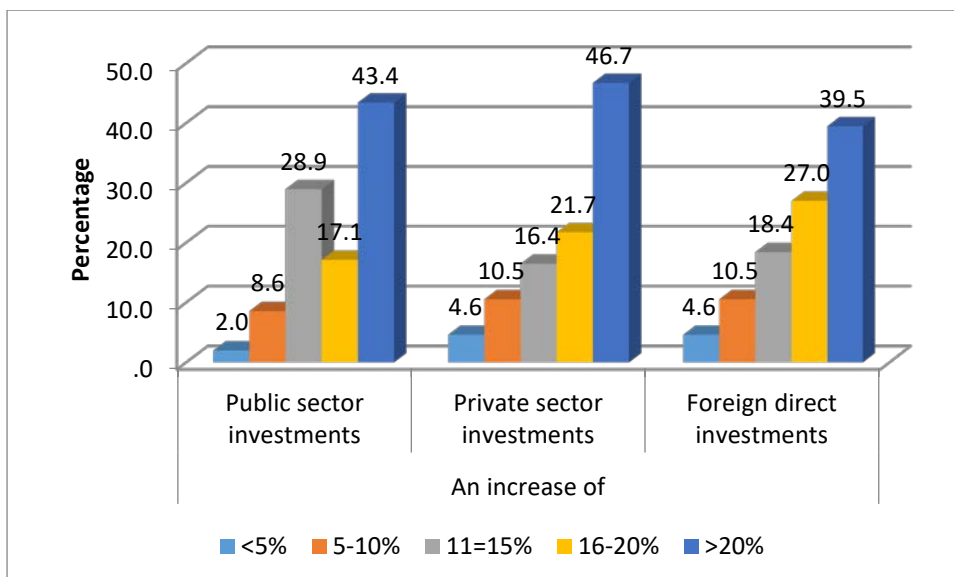
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <5%	3	2.0	2.0	2.0
5-10%	13	8.6	8.6	10.5
11-15%	44	28.9	28.9	39.5
16-20%	26	17.1	17.1	56.6
>20%	66	43.4	43.4	100.0
Total	152	100.0	100.0	

4.7.2 An increase in private sector investment of...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <5%	7	4.6	4.6	4.6
5-10%	16	10.5	10.5	15.1
11-15%	25	16.4	16.4	31.6
16-20%	33	21.7	21.7	53.3
>20%	71	46.7	46.7	100.0
Total	152	100.0	100.0	

4.7.3 An increase in foreign direct investments of...

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <5%	7	4.6	4.6	4.6
5-10%	16	10.5	10.5	15.1
11=15%	28	18.4	18.4	33.6
16-20%	41	27.0	27.0	60.5
>20%	60	39.5	39.5	100.0
Total	152	100.0	100.0	



Test – chi-square gof...

4.7.1 An increase in public sector investment of...

	Observed N	Expected N	Residual
<5%	3	30.4	-27.4
5-10%	13	30.4	-17.4
11=15%	44	30.4	13.6
16-20%	26	30.4	-4.4
>20%	66	30.4	35.6
Total	152		

4.7.2 An increase in private sector investment of...

	Observed N	Expected N	Residual
<5%	7	30.4	-23.4
5-10%	16	30.4	-14.4
11=15%	25	30.4	-5.4
16-20%	33	30.4	2.6
>20%	71	30.4	40.6
Total	152		

4.7.3 An increase in foreign direct investments of...

	Observed N	Expected N	Residual
<5%	7	30.4	-23.4
5-10%	16	30.4	-14.4
11=15%	28	30.4	-2.4
16-20%	41	30.4	10.6
>20%	60	30.4	29.6
Total	152		

Test Statistics

	4.7.1 An increase in public sector investment of...	4.7.2 An increase in private sector investment of...	4.7.3 An increase in foreign direct investments of...
Chi-Square	83.066 ^a	80.237 ^a	57.539 ^a
df	4	4	4
Asymp. Sig.	.000	.000	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 30.4.

4.8.1 Increased public sector Investment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	1	.7	.7	.7
Neutral	2	1.3	1.3	2.0
Agree	55	36.2	36.2	38.2
Strongly agree	94	61.8	61.8	100.0
Total	152	100.0	100.0	

4.8.2 Increased private sector Investment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	2	1.3	1.3	1.3
Neutral	7	4.6	4.6	5.9
Agree	37	24.3	24.3	30.3
Strongly agree	106	69.7	69.7	100.0
Total	152	100.0	100.0	

4.8.3 Increased foreign direct investments

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	4	2.6	2.6	2.6
Neutral	12	7.9	7.9	10.5
Agree	45	29.6	29.6	40.1
Strongly agree	91	59.9	59.9	100.0
Total	152	100.0	100.0	

4.8.4 A dedicated provincial agency to deal with Investment promotion in the province

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	4	2.6	2.6	3.3
Neutral	5	3.3	3.3	6.6
Agree	42	27.6	27.6	34.2
Strongly agree	100	65.8	65.8	100.0
Total	152	100.0	100.0	

4.8.5 Involvement of traditional leaders in promoting investment in the province

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	1	.7	.7	.7
Disagree	3	2.0	2.0	2.6
Neutral	16	10.5	10.5	13.2
Agree	65	42.8	42.8	55.9
Strongly agree	67	44.1	44.1	100.0
Total	152	100.0	100.0	

Test – one sample t-test

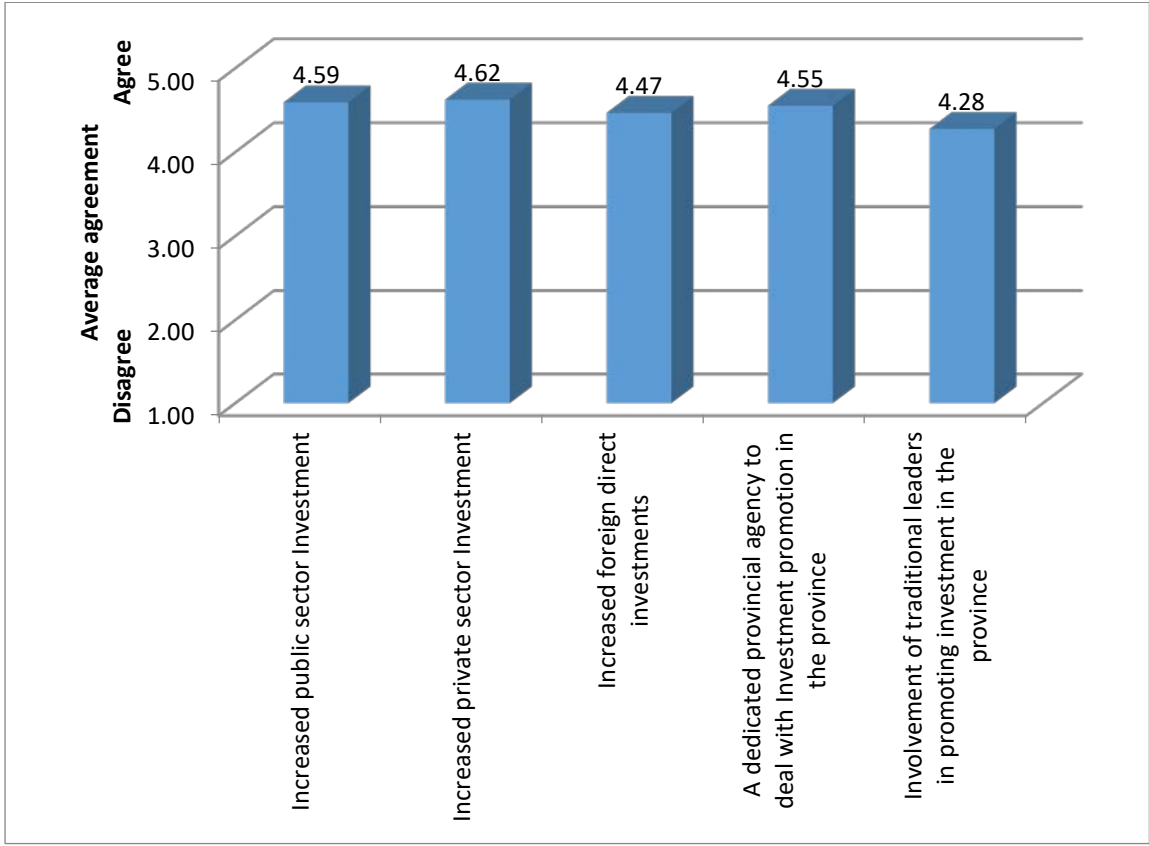
One-Sample Statistics

		N	Mean	Std. Deviation	Std. Error Mean
4.8.1	Increased public sector Investment	152	4.59	.556	.045
4.8.2	Increased private sector Investment	152	4.63	.639	.052
4.8.3	Increased foreign direct investments	152	4.47	.754	.061
4.8.4	A dedicated provincial agency to deal with Investment promotion in the province	152	4.55	.744	.060
4.8.5	Involvement of traditional leaders in promoting investment in the province	152	4.28	.782	.063

One-Sample Test

		Test Value = 3					
						95% Confidence Interval of the Difference	
		t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
4.8.1	Increased public sector Investment	35.292	151	.000	1.592	1.50	1.68
4.8.2	Increased private sector Investment	31.361	151	.000	1.625	1.52	1.73
4.8.3	Increased foreign direct investments	23.990	151	.000	1.467	1.35	1.59
4.8.4	A dedicated provincial agency to deal with Investment promotion in the province	25.729	151	.000	1.553	1.43	1.67

4.8.5	Involvement of traditional leaders in promoting investment in the province	20.116	151	.000	1.276	1.15	1.40
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5.1 There is a strong relationship between Political leadership and investment growth

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	3	2.0	2.0	2.0
Neutral	9	5.9	5.9	7.9
Agree	38	25.0	25.0	32.9
Strongly agree	102	67.1	67.1	100.0
Total	152	100.0	100.0	

5.2 There is adequate political leadership at municipal level to promote investment

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	48	31.6	31.6	31.6
Disagree	69	45.4	45.4	77.0
Neutral	9	5.9	5.9	82.9
Agree	17	11.2	11.2	94.1
Strongly agree	9	5.9	5.9	100.0
Total	152	100.0	100.0	

5.3 The current political leadership is successful in promoting investments locally and abroad

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	29	19.1	19.1	19.1
Disagree	76	50.0	50.0	69.1
Neutral	36	23.7	23.7	92.8
Agree	6	3.9	3.9	96.7
Strongly agree	5	3.3	3.3	100.0
Total	152	100.0	100.0	

5.4 The current political leadership makes decisive decisions when addressing matters of investments

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	57	37.5	37.5	37.5
Disagree	61	40.1	40.1	77.6
Neutral	22	14.5	14.5	92.1
Agree	8	5.3	5.3	97.4
Strongly agree	4	2.6	2.6	100.0
Total	152	100.0	100.0	

One-Sample Statistics

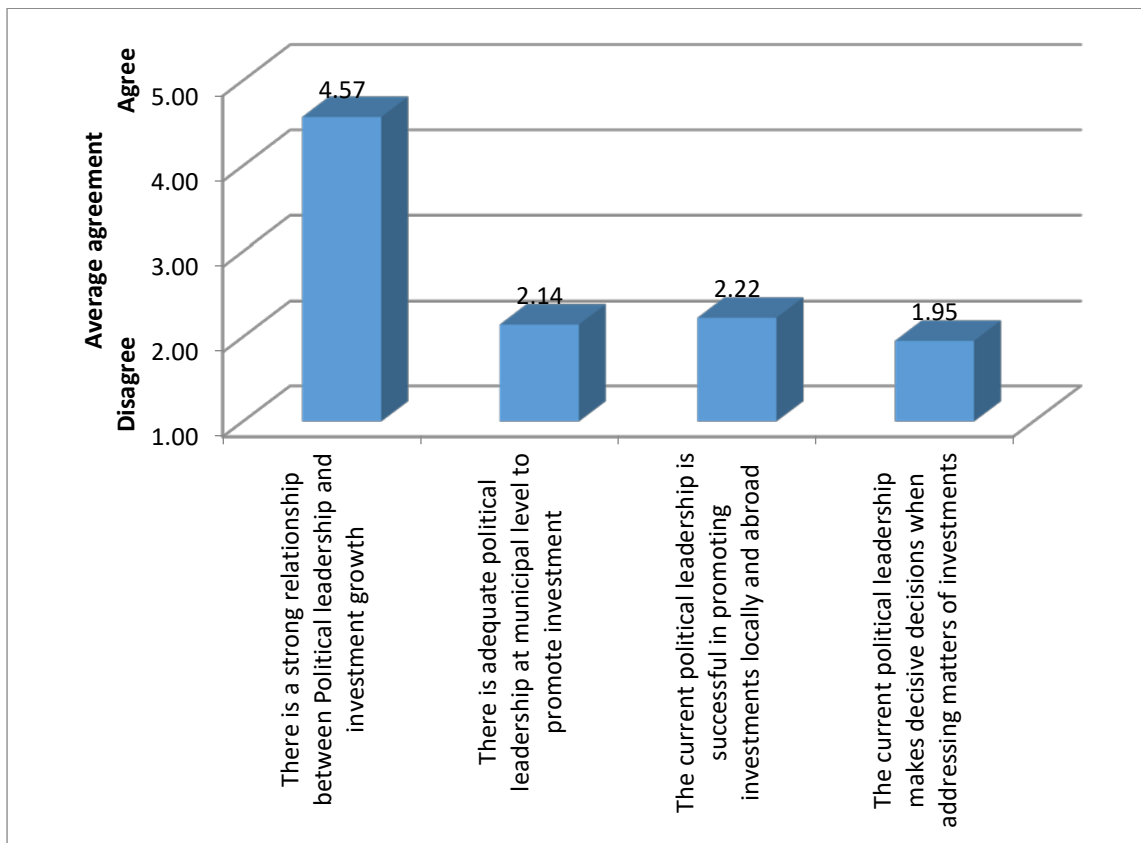
	N	Mean	Std. Deviation	Std. Error Mean
5.1 There is a strong relationship between Political leadership and investment growth	152	4.57	.696	.056
5.2 There is adequate political leadership at municipal level to promote investment	152	2.14	1.159	.094
5.3 The current political leadership is successful in promoting investments locally and abroad	152	2.22	.915	.074
5.4 The current political leadership makes decisive decisions when addressing matters of investments	152	1.95	.986	.080

One-Sample Test

	Test Value = 3					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
5.1 There is a strong relationship between Political leadership and investment growth	27.842	151	.000	1.572	1.46	1.68
5.2 There is adequate political leadership at municipal level to promote investment	-9.098	151	.000	-.855	-1.04	-.67
5.3 The current political leadership is successful in promoting investments locally and abroad	-10.461	151	.000	-.776	-.92	-.63

5.4 The current political leadership makes decisive decisions when addressing matters of investments	-13.085	151	.000	-1.046	-1.20	-.89
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Report as before. NOTE that 5.2 – 5.4 are all sig DISAGREEMENT...



Bivariate analysis

Correlations between:

- 1.2 and 3.6
- 2.1 and 5.1
- 2.3 and 3.1
- 2.4 and 1.2
- 2.6 and 1.3
- 2.7 and 3.12

For all the correlations a Pearson's correlation is applied.

Correlations

		1.1 Political willingness to make decisions on investment	3.6 Increase in public sector Investment on infrastructure
1.1 Political willingness to make decisions on investment	Pearson Correlation	1	.360**
	Sig. (2-tailed)		.000
	N	152	152
3.6 Increase in public sector Investment on infrastructure	Pearson Correlation	.360**	1
	Sig. (2-tailed)	.000	
	N	152	152

** . Correlation is significant at the 0.01 level (2-tailed).

There is a significant positive correlation between these two items ($r=.360$, $p<.0005$).

Interpret a positive correlation as: agreement on one item is associated with agreement on the other item.

Correlations

		5.1 There is a strong relationship between Political leadership and investment growth
	2.1 Lack of sufficient political will	
2.1 Lack of sufficient political will	Pearson Correlation	.389**
	Sig. (2-tailed)	.000
	N	152
5.1 There is a strong relationship between Political leadership and investment growth	Pearson Correlation	.389**
	Sig. (2-tailed)	.000
	N	152

** . Correlation is significant at the 0.01 level (2-tailed).

Correlations

		3.1 Increase in fiscal budget allocation to province
	2.3 Lack of sufficient funding	
2.3 Lack of sufficient funding	Pearson Correlation	.025
	Sig. (2-tailed)	.763
	N	152
3.1 Increase in fiscal budget allocation to province	Pearson Correlation	1
	Sig. (2-tailed)	.763
	N	152

NOT a sig correlation

Correlations

			1.2 Investment by government in the economic infrastructure		
2.4 Lack of infrastructure	Pearson Correlation	1	.188*		
	Sig. (2-tailed)		.020		
	N	152	152		
1.2 Investment by government in the economic infrastructure	Pearson Correlation	.188*	1		
	Sig. (2-tailed)	.020			
	N	152	152		

*. Correlation is significant at the 0.05 level (2-tailed).

Correlations

	2.6 Lack of monitoring and evaluation by government	1.3 improved governance in the province
2.6 Lack of monitoring and evaluation by government	Pearson and Correlation by Sig. (2-tailed) N	1 .196* .015 152 152
1.3 improved governance in the province	Pearson and Correlation Sig. (2-tailed) N	.196* 1 .015 152 152

*. Correlation is significant at the 0.05 level (2-tailed).

Correlations

	2.7 Lack of efficiency in spending investment funding and grants	3.12 Efficient investment on funding by government
2.7 Lack of efficiency in investment and grants	Pearson Correlation Sig. (2-tailed) N	1 .252** .002 152
3.12 investment on funding by government	Pearson Correlation Sig. (2-tailed) N	.252** 1 .002 152

** . Correlation is significant at the 0.01 level (2-tailed).

Dear Bhasela,

Thank you for your e-mail.

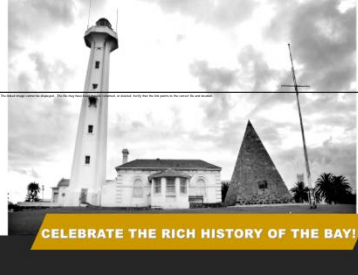
Regret, we are unable to assist.

Kind Regards

Kevin Hustler

Chief Executive Officer

Coffee Table Book



APPENDIX C PERMISSION TO CONDUCT RESEARCH LETTERS

PERMISSION TO CONDUCT RESEARCH LETTERS



Graduate School of Business & Leadership
Private Bag X54001
Durban
4001
16 November 2015

OR Tambo District Municipality Chambers of Business
Sir/Madam

RE: PERMISSION TO CONDUCT RESEARCH

I am Bhasela Yalezo, currently a lecturer and a PHD candidate at University of KwaZulu-Natal (UKZN); Graduate School of Business & Leadership. After having worked for the (ECPC) as an Economic Research Assistant, I became more interested in ways of attracting investment to the province, hence my study is titled:

“Advancing Gross Fixed Capital Formation (Investment) Paradigm in the Eastern Cape Province of South Africa: Historical Trends and Prospects”.

I would like to request a permission to conduct such research in ORTDM Chambers of Business, as a business sector organisation that plays an integral part in attracting investments. I will be administering a questionnaire to members within the chamber.

UKZN requires such a letter, before they can grant me a research ethical clearance to continue with the study, from the body/ entity that is regarded as significant participant in the study.

Yours sincerely

Mr Bhasela Yalezo

Tel: 0312607038

Email: Yalezob@ukzn.ac.za



Graduate School of Business & Leadership
Private Bag X54001
Durban
4000

12 November 2015

ORTDM

Dear Mr Buso

RE: PERMISSION TO CONDUCT RESEARCH

I am Bhasela Yalezo, currently a lecturer and a PHD candidate at University of KwaZulu-Natal (UKZN); Graduate School of Business & Leadership. After having worked for the (ECPC) as an Economic Research Assistant, I became more interested in ways of attracting investment to the province, hence my study is titled:

“Advancing Gross Fixed Capital Formation (Investment) Paradigm in the Eastern Cape Province of South Africa: Historical Trends and Prospects”.

I would like to request a permission to conduct such research in ORTDM economic development unit, I will be administering a questionnaire to selected district municipalities and entities that play an integral part in attracting investments.

UKZN requires such a letter, before they can grant me a research ethical clearance to continue with the study, from the body/ entity that my research is based on.

Yours sincerely

Mr Bhasela Yalezo

Tel: 0312607038

Email: **Yalezob@ukzn.ac.za**



Graduate School of Business & Leadership
Private Bag X54001
Durban
4000
02 November 2015

OFFICE OF THE PREMIER (OTP)

Dear Ms Marion Mbina-Mthembu

RE: PERMISSION TO CONDUCT RESEARCH

I am Bhasela (Bhaso) Yalezo, currently a lecturer and a PHD candidate at University of KwaZulu-Natal (UKZN); Graduate School of Business & Leadership. After having worked for the (ECPC) as an Economic Research Assistant, I became more interested in ways of attracting investment to the province, hence my study is titled:

“Advancing Gross Fixed Capital Formation (Investment) Paradigm in the Eastern Cape Province of South Africa: Historical Trends and Prospects”.

I would like to request a permission to conduct such research in the province, I will be administering a questionnaire to selected departments and entities that play an integral part in attracting investments.

UKZN requires such a letter, before they can grant me a research ethical clearance to continue with the study, from the body/ entity that my research is based on.

Yours sincerely

Mr Bhasela Yalezo

Tel: 0312607038

Email: Yalezob@ukzn.ac.za

**APPENDIX D PROPOSAL APPROVAL, TURNINIT REPORT AND ETHICAL
CLEARANCE**