THE IMPACT OF ECONOMIC GROWTH ON UNEMPLOYMENTIN SOUTH AFRICA: 1994 – 2012

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Abstract

One of the most pressing problems facing the South African economy is unemployment, which has been erratic over the past few years. This study examined the impact of economic growth on unemployment, using quarterly time series data for South Africa for the period 1994 to 2012.Johansen Co-integration reflected that there is stable and one significant long run relationship between unemployment and the explanatory variables that is economic growth (GDP), budget deficit (BUG), real effective exchange rate (REER) and labour productivity (LP). The study utilized Vector Error Correction Model (VECM) to determine the effects of macroeconomic variables thus REER, LP, GDP and BUG on unemployment in South Africa. The results of VECM indicated that LP has a negative long run impact on unemployment whilst GDP, BUG and REER have positive impact. The study resulted in the following policy recommendation: South African government should re-direct its spending towards activities that directly and indirectly promote creation of employment and decent jobs; a conducive environment and flexible labour market policies or legislations without impediments to employment creation should be created; and lastly government should prioritise industries that promote labour intensive. All this will help in absorbing large pools of the unemployed population thereby reducing unemployment in South Africa.

Keywords: Unemployment, Economic Growth, Vector Error Correction, South Africa

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1 Introduction

South Africa is one of the African countries that is endowed with a lot of resources, both human and minerals. However due to activities such as increase in corruption, gross mismanagement and adverse policies of various governments, these resources have not been optimally utilised. For instance, Faul (2013) points out the controversial scenario of the misuse of taxpayer's money and government funds worth almost 250 million rands on the upgrade of President Zuma's private house in his home village. Osinubi (2005) adds that resources should be fully utilised and channelled to profitable investments so as to bring about maximum economic benefits. As a result of not fully utilising and channelling resources in the right direction then a nation with end up having continual problems of unemployment and poverty (Osinubi, 2005). This is true of South Africa which is facing the greatest challenge of chronic unemployment which has maintained a rising trend over the past years (Berkowitz, 2011). Unemployment is undesirable and it significantly contributes to widespread of poverty and income inequality in South Africa. Furthermore, unemployment and poverty have led to tremendous increases in crime rates, morbidity and unrests, just mentioning few.

The issue of unemployment in South Africa is well pronounced as evidenced by many schools leavers and even graduates who cannot find jobs and many engage in jobs in which their potentials are not fully utilised. Isobel (2006) highlights that the chronic nature of unemployment in South Africa is reflected by the fact that many unemployed people have never worked before. In addition, many people who are unemployed and are still actively looking for work have been looking for employment in excess of 3 years. The total labour force or economically active population in South Africa is comprised of all individuals of working age (between 15-64 years) who are either employed or unemployed. The youths consist of the large fraction of the unemployed population in South Africa.

According to Lings (2012), the released first quarter for 2012 of Labour Force survey (FLS) by Stats SA reflects that there were 32.786 million people aged between 15 and 64 years in South Africa (up by 116 000 relative to Q4 2011 and up by 472 000 year on year). The number of economically active people was 17.948 million for comparison purposes with 2011 reflecting an increase by 207 000 relative to Q4 2011 and up by 466 000 on year to year. From this group, 13.497 million were employed, reflecting a decrease of 75 000 of employed people relative to Q4 2011 and up by 304 000 year on year. On the hand

4.526 million were unemployed, reflecting an increase of 282 000 relative to Q4 2011 and up by 162 000 year on year (Lings, 2012).

The problems that were inherited from apartheid to a greater extent had and continue to have an influence on the nature of development in South Africa in terms of post-apartheid policies to subdue problems such as of unemployment, poverty and income inequality. The advent of democracy in 1994 created hope for better living standards and other expectations among previously disadvantaged population. Chikulo (2003), states that in an effort to reduce not only socio-economic imbalances in South Africa but also to meet these high expectations among the majority of the black population. The new government pledged rapid socio-economic development by prioritising reduction in unemployment, poverty alleviation and income inequality in its development strategy agenda. In the early years of a democratically elected government entering into power, the issue of unemployment, poverty and income inequality needed immediate attention. The South African government thus introduced various development polices and strategies namely (i) Redistribution Development Programme (RDP), (ii) Growth Employment and Redistribution Policy (GEAR), (iii) Accelerated and Shared Growth Initiative of South Africa (ASGISA), and (iv) Joint Initiative for Priority Skills Acquisition (JIPSA). These policies were introduced to combat challenges of chronic unemployment, poverty and income inequality.

Theoretically, economic growth is viewed as the most prominent instrument for reducing unemployment, poverty and to help improve the living standards of people. Kreishan (2010) states that an increase in the growth rate of GDP of an economy is expected to increase employment levels thus reducing unemployment. This is a widely accepted view in economics theory;hence the theoretical proposition relating output and unemployment is referred to as Okun's Law. Okun's law describes one of the famous empirical relationships of output and unemployment in macroeconomics theory and has been found to hold for several countries mainly in developed countries (Lee, 2000; Fariso and Quade, 2003 and Daniels and Ejara, 2009). Osinubi (2005) observed that although economic growth is necessary for trimming down unemployment and poverty alleviation, it is not sufficient because growth alone cannot overcome all the crucial factors that contribute to unemployment and poverty. Therefore there is need to adopt more policies that help to construct investment programs which enable job creation, thus spurring economic growth and eradicating of poverty.

2 Literature review

The theoretical underpinnings discussed in this study are the unemployment theories (Classical and Keynesian) and economic growth theories (Neoclassical and Endogenous). The classical theory of unemployment based its argument based on the assumptions that full employment and flexibility of prices and wages are a remedy to correct any disequilibrium in labour market. Classical economists regarded the doctrine of the existence of full employment in the economy to be normal. Moreover, according to Samuel (1987), the classical theory postulated that they could never be a general over production or market glut in the economy. Hence, any deviation from the full employment was regard as abnormal. The classical theory suggested that any unemployment that exists in the economy would be short lived and the operation of the free market forces automatically restores full employment in the economy.

The Keynesian theory of unemployment hypothesized that unemployment arises due to insufficient aggregate demand (Keynes, 1936). Keynes criticized the classical assumption that unemployment can exist due to the interference with the workings of free market in the form of trade unions or minimum wage legislation imposed by the government. In turn, Keynes argued that unemployment was due to the view that aggregate demand was not sufficient to generate work for all those seeking to work at the going wage rate. The Keynesian approach assumed that wages were more inflexible downward than upward thus wages were rigid downwards. Keynes theory posited that wages were rigid downward due to the trade union and minimum wage legislation imposed by the government and these would not allow employers to reduce the wage rate. In addition, workers would strongly resist, not willing to accept any reduction in wages thus workers are reluctant to allow their nominal wages to reduce. However, workers would accept a wage increment thus wages tends followed an upward direction with time. As a result of inflexibility downward of wages (rigidity downwards of wages), Keynes (1936) believed that involuntary unemployment would occur in the economy.

The neo-classical growth model is also known as the exogenous growth model or Solow growth model. The neoclassical growth presented addresses limitations in the Harrod-Domar model which places emphasis on exogenous factor accumulation as a determinant of knife-edge growth. In response to this, the Solow growth model depicts that steady state of growth is driven by technology progress while the adjustment to stable steady state growth is achieved by endogenous changes in factor accumulation. Aghion and Howiit (1997) argue that the most basic proposition of the growth theory is that in order to sustain a positive growth rate of output per capita in long run, there must be continual advances in the technological progress that offsets the dampening effects of diminishing returns. Hence the neoclassical growth model developed by Solow (1956) and Swan

(1956) shows that if there is no technological progress then the effects of diminishing returns to capital accumulation would eventually cause economic growth to cease (Aghion et al, 1997).

Modern endogenous growth theories attempt to explain the rate of technological progress, which the Solow model takes as exogenous. However, endogenous growth economists firmly believe that the sources of economic growth are endogenous. Accumulation of knowledge (learning by doing) and human capital are regarded as the driving forces of economic growth. Among the simple endogenous growth models that considered accumulation of human capital were the AK model of endogenous growth of Rebelo (1991) and the model of Mankiw, Romer and Weil (1992) that extended the Solow-Swan model by adding human capital. This study will consider the endogenous growth models, the so called AK model proposed by Rebelo (1991) and it assumes that the economy employs a single factor of production which is capital (*K*) to produce the total output (*Y*). Rebelo (1991)'s model, assumes that the production function is linear with respect to capital thus there is a linear relationship between output, *Y* and the single factor of production, capital *K*. Hence there are constant returns to scale and constant returns to capital.

There are many empirical studies that have been done in developed countries helped spur economic growth, in turn reducing unemployment levels and improving living standards of fellow citizens. These empirical studies include the works of Walterskirchen (1999), Swane and Vistrand (2006), Sawtelle (2007) and Yerdelen Tatoglu (2011). Most studies found that the relationship between GDP growth and change in unemployment was divided into two components: the link between GDP and change in employment is governed by economic factors whilst those between change in employment and unemployment rates are governed by demographic influences and labour market policies. Results obtained from the studies show a positive and significant relationship between GDP and employment. Many scholars and researchers have published and documented a lot of articles from developing countries. Hence this contributes to the studies focusing on the coherent relationship between economic growth and unemployment and even its effects amongst each other in the developing countries. These studies include the works by Hussain, Siddiqi and Iqbal (2010), Aktar and Ozturk (2009), Andrei, Vasile and Adrian (2010), Messkoub (2008) and Sodipe and Ogunrinola (2011).

Previous studies have examined the effects of economic growth on unemployment and its relationships in South Africa and how the post-apartheid government tried to lessen issues such as high unemployment, poverty, inequality and how to spur economic growth. These studies include works done by Biyase and Bonga-Bonga (2010), Mahadea (2003), Burger and Von Fintel (2009), Kingdon and Knight (2001), Marinkov and Geldenhuys (2007) and Mahadea and Simson (2010).

3 Methodology

3.1 Model specification

This study modifies the model adopted by Aktar and Ozturk (2009) of unemployment as a function of inter alia economic growth and foreign direct investment in Turkey? The model specified that:

$$UR_t = f(GDP_t, EXP_t, FDI_t) \quad (3.1)$$

Where t is time trend, UR_t,GDP_t, EXP_t, FDI_t are unemployment rate, gross domestic product, exports and foreign direct investment respectively.

In examining the impact of economic growth on unemployment in South Africa, the selection of variables was influenced by the literature reviewed and on the availability of data. In modifying the model in (3.1), this study adds three variables which are government deficit, labour productivity and real effective exchange rate. Equation (3.2) below is modelled with variables adjusted to suit this study, where unemployment is modelled as a function of gross domestic product, budget deficit, labour productivity and real effective exchange rate. The empirical model of the study therefore is specified as follows:

$$UR_t = \beta_0 + \beta_1 GDP_t + \beta_2 REER_t + \beta_3 BUG_t + \beta_4 LPt + \varepsilon_t \quad (3.2)$$

β_0, β_1, β_2, $\beta_3$and$\beta_4$are the parameter estimates or coefficients of explanatory variables and ε is the error term.

All the variables used in this study are converted to natural logarithms so as to minimise the impact of outliers and to obtain elasticity coefficients of these variables. Therefore, the model to be estimated is as follows:

. $$InUR_t = \beta_0 + \beta_1 InGDP_t + \beta_2 InREER_t + \beta_3 InBUG_t + \beta_4 InLP_t + \varepsilon_t \quad (3.3)$$

Where:

$InUR_t$ is the natural logarithm of unemployment in South Africa.

$InGDP_t$ is the natural logarithm of gross domestic product and is used as a proxy for economic growth

$InREER_t$ is the natural logarithm of real effective exchange rate, measured in foreign currency terms.

InBUG is the natural logarithm of budget deficit.

InLP is the natural logarithm of labour productivity.

4 Results

4.1 Stationarity results

The paper first examined the time series properties of data in order to detect if these variables were stationary or non-stationary. Two formal methods were used to test for stationarity; these include DF, ADF and P-P tests. Unit root test results based on the Augmented Dickey-Fuller and Phillips-Perron approach for the selected data series used in the study are presented in Tables 4.1(a) and 4.1(b). A typical unit root test is carried out using three kinds of regressions namely; without intercept and trend, with intercept but no trend, with both intercept and trend. Table 4.1(a) and 4.1(b) below display the results when there is intercept but no trend and also with both intercept and trend

Table 4.1(a) Stationarity results of augmented dickey-fuller test

Order of Integration	Variable	Intercept	Trend and Intercept
Level	LUN	-2.428105	-2.163671
1st differenced	DUN	-8.600376***	-8.787136***
Level	LGDP	-0.767991	-2.322597
1st differenced	DGDP	-2.859157*	-2.827792
Level	LREER	-2.767420*	-3.715454**
1st differenced	DREER	-9.452219	-9.389639***
Level	LLP	-0.718396	-4.318353*
1st differenced	DLP	-6.868514***	
Level	LBUG	-1.863169	-1.576961
1st differenced	DBUG	-3.215054**	-3.446540*
1 %	Critical Value	-3.520307	-4.094550
5 %		-2.900670	-3.475305
10 %		-2.587691	-3.165046
Values marked with a *** represent stationary variables at 1% significance level, ** represent stationary at 5% and * represent stationary variables at 10%.			

Table 4.1(b) Stationarity results of phillips-perron test

Order of Integration	Variable	Intercept	Trend and Intercept
Level	LUN	-2.387832	-2.002433
1st differenced	DUN	-10.51225***	-11.32200***
Level	LGDP	-0.588012	-5.134607***
1st differenced	DGDP	-18.97381***	
Level	LREER	-2.758381*	-2.709520
1st differenced	DREER	-9.454330	-9.391353***
Level	LLP	-0.698362	-3.403712*
1st differenced	DLP	-6.917136***	-6.876002***
Level	LBUG	-6.247430***	-6.227271***
1 %	Critical Value	-3.520307	-4.085092
5 %		-2.900670	-3.470851
10 %		-2.587691	-3.162458
Values marked with a *** represent stationary variables at 1% significance level, ** represent stationary at 5% and * represent stationary variables at 10%.			

Most variables failed to pass both the ADF and P-P tests when they are in level expect the REER and BUG. Failure to reject the null hypothesis (failing to pass units tests) implies that the variables are non-

stationary at level and this requires first or higher order differencing in order to make them stationary. The null hypothesis is rejected if the value of test statistic has a more absolute value than that of critical value. The other variables: GDP, LP and UN only became stationary after the first differencing. This reflected that null hypothesis was rejected in favour of alternative hypothesis and making the series to be stationary. Therefore it can be concluded that the variables used are integrated in the same order I(1). Since the variables are stationary and integrated in order of one, one can employ co-integration tests between variables.

4.2 Tests for co-integration

Given that the variables used in this study are integrated of the same order, it is important to perform co-integration tests so as to determine whether there exists long run equilibrium amongst the variables. This paper employed the Johansen's (1991, 1995) maximum likelihood method to test for co-integration. The Johansen technique requires an indication of lag of the lag order and the deterministic trend assumption of the VAR. In order to select the lag order for the VAR, this study applied the information criterion approach as a direction to choose the lag order. Table 4.2 confirms the lag lengths selected by different information criterion.

Table 4.2 Lag selection criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-776.5719	NA	3433.208	22.33063	22.49123	22.39442
1	-493.8867	516.9102	2.183465	14.96819	15.93183	15.35096
2	-461.3659	54.82071	1.780788	14.75331	16.51999	15.45506
3	-400.2641	94.27131	0.652822	13.72183	16.29154	14.74255
4	-318.5443	114.4078	0.136296	12.10126	15.47401*	13.44096
5	-265.6853	66.45131*	0.067368*	11.30529	15.48107	12.96396*
6	-238.9146	29.83017	0.073869	11.25470*	16.23351	13.23235

The results for lag length selection criteria reported in Table 4.2 highlighted that the criteria selected lag 5. Information criterion- LR, FPE and HQ selected the most lag order of 5.

Table 4.3 Unrestricted co-integration rank tests (trace) results

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None*	0.391669	79.70581	68.81889	0.0066
At most 1	0.283952	42.92512	47.856143	0.1344
At most 2	0.164315	18.20856	29.7977	0.5507
At most 3	0.064359	4.925260	15.49471	0.8167
At most 4	3.42E-05	0.002528	3.841466	0.9575

Trace test indicates 1 co-integration eqn(s) at the 0.05 level, *denotes rejection of the hypothesis at the 0.05 level, ** MacKinnon-Haug-Michelis (1999) p-values

Table 4.4 Unrestricted co-integration rank test (maximum eigenvalue) results

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None*	0.391669	36.78069	33.87687	0.0066
At most 1	0.283952	24.71656	27.58434	0.1344
At most 2	0.164315	13.28330	21.13162	0.5507
At most 3	0.064359	4.922732	14.26460	0.8167
At most 4	3.42E-05	0.002528	3.841466	0.9575

Max-eigenvalue test indicates 1 co-integration eqn(s) at the 0.05 level, * denotes rejection of the hypothesis at the 0.05 level, ** MacKinnon-Haug-Michelis (1999) p-values

The results of trace tests that are reported in Table 4.3 reflect that at least one co-integration equation exists at 5% significant level. The null hypothesis of no co-integrating vectors is rejected

since the trace (test) statistic of 79.70581 is greater than the 5% critical value of approximately 68.81889. The results of maximum Eigenvalue test in Table 4.4 achieved similar results to that of the trace test as it rejects the null hypothesis of no co-integration. Therefore one can reach a conclusion that there is stable and one significant long run relationship between unemployment and the explanatory variables, these are GDP, BUG, REER and LP. Since variables can either have short or long run effects, a vector error correction model (VECM) was used to disaggregate these effects.

4.3 The vector error correlation model (vecm)

After establishing that all variables are stationary and co-integrated in the previous section, the next step in this study is to apply the VECM. The purpose of VECM technique is that it allows us to distinguish between long and short run impacts of variables for the unemployment model. Using the results obtained from co-integration tests, the VECM was specified and the results of VECM are reported in Table 4.5 and 4.6.

Table 4.5 Long run co-integration equation results

Variables	Coefficient	Standard error	t-statistic
Constant	-286.3074		
UN(-1)	1.000000	-	-
GDP(-1)	19.49725	21.4227	0.91012
REER(-1)	0.446199	0.05322	8.38481
LP(-1)	-0.288840	0.19680	-1.46771
BUG(-1)	0.609186	0.21191	2.87472

The long run impact of explanatory variables (GDP, REER, LP, and BUG) on unemployment as shown in Table 5.5 is illustrated using equation 5.1:

$$UN = -286.307 + 19.497GDP + 0.446REER - 0.289LP + 0.609BUG \quad (4.1)$$

The equation 5.1 reflects that GDP, REER and BUG have a positive long run relationship with unemployment. It is worth mentioning that REER and BUG are statistically significant in explaining unemployment since they have absolute t-values greater 2.

The results therefore suggest that a one percent unit increase in REER (an appreciation) increases unemployment by approximately 0.446. The results also suggest that an appreciation leads to reduction on job creation in the long run. Depreciation in REER is usually associated with lower levels of unemployment since depreciated REER incentivises more intensive use of labour due to fact that the relative price of that production factor (where price of labour measure in the international currency) has fallen (Frenkel, 2004).

The results reported in Table 4.5 suggest that a unit increase in GDP increases unemployment by approximately 19.497. Usually an increase in economic growth is accompanied by a decline in unemployment. However when growth is not accompanied with job creations, this is regarded as a "jobless growth" phenomenon. Mahadea (2003) produced similar results and emphasised that positive economic growth rates have been associated with shrinking job creation. Samson, Quene and Niekerk (2001) also pointed out that the Reserve Bank's 2001 Annual Report revealed fallen fall in the rates of job creation even as GDP growth rates rose during the 1990s. This was attributed to a number of combined factors such as pressure on domestic producers to be competitive in an increasingly globalised market, increasing rates of capital intensity, slow pace of foreign direct investment among others. The results confirm the jobless growth hypothesis that states South African GDP growth is failing to create jobs.

On the other hand, equation 4.1 also reflects that only LP has a negative long run relationship with unemployment. Consequently the results suggest that a one per cent unit increase in LP reduces unemployment by approximately -0.289. This relationship is compatible with the economics theory. Marginal productivity theory, specify that as long as the marginal product of the extra worker is increasing this induces firms or businesses to hire more workers hence reflecting a negative relationship between LP and unemployment. Furthermore, the results suggest that a per cent unit increase in BUG increases unemployment by approximately 0.609. This relationship does not concur with the economic theory. For instance based on the Keynesian theory, policymakers recommended the use of a budget deficit policy, when government spends more than the revenue it collects so as to boost employment creation and reduces unemployment levels. Higher government spending might be on things such as on infrastructure, education, employment inducing programmes among others that lead to reduction in

unemployment levels. The VECM results suggested evidence of error correction as depicted in Table 4.6.

Table 4.6 Error correction results

Variable	Coefficient	Standard Error	t-statistic
D(UN)	-0.431765	0.15212	-2.83832
D(GDP)	0.002450	0.00073	3.34783
D(REER)	-1.070730	0.57300	-1.86863
D(LP)	0.671146	0.19927	3.36797
D(BUG)	0.440239	0.13679	3.21832

The error corrections results shown in Table 4.6 reflect a correct sign (negative) and significant which indicates that any short-term fluctuations between the explanatory variables and the dependant variable will give rise to a stable long run relationship between the variables. Results reported in Table 4.6 depict that the coefficient of the differenced dependent variable (UN) is -0.431765 reflect that the speed of adjustment is approximately 43.177 per cent. This implies that if there is a deviation from equilibrium, approximately 43.177% of unemployment is corrected in one year as the variable moves towards restoring equilibrium.

4.4 *Diagnostic checks*

In order to validate the parameter evaluation of the outcomes attained by the unemployment model employed in this paper, diagnostic checks were performed. The model was tested for fitness using three tests, namely white test for heteroskedasticity, langrage multiplier (LM) test for serial correlation and the Jarque-Bera (JB) test for normality. In a nutshell the results of the diagnostic checks suggest that there is no serial correlation, no conditional heteroskedasticity and normal distribution in the unemployment model.

Table 4.7 Diagnostic checks results

Test	**Null hypothesis**	**T-statistic**	**Probability**
Langrage Multiplier (LM)	No serial correlation	30.03959	0.2228
White (CH-sq)	No conditional heteroskedasticity	32.39	0.0657
Jarque-Bera(JB)	There is a normal distribution	2.000358	0.3678

5 Conclusions

This study examined the impact of unemployment on economic growth in South Africa using time series data for the period from 1994 to 2012.The study was motivated by the growing importance of unemployment and growth relationship in developing countries. A significant amount of research has been conducted in developed countries examining the unemployment-growth nexus and this has yield different results based on the period and country of study. However, little has been done to explore the unemployment-growth nexus in developing countries especially in Africa. The South African economy is currently experiencing problems of job shortage and the rate of unemployment has been erratic over the past years. This led to policymakers and economists to construct sets of possible reasons why the level of

5.1 Policy implications and recommendations

In light of the above summary, the results suggest several policy recommendations that can be drawn in order to reverse the trend of erratic unemployment. These recommendations are expected to significantly contribute to employment generation in South Africa:

- After apartheid the South African government promulgated several laws that have significantly changed the labour market institutions. Arora and Ricci (2006) argues that aspects of some labour practices and regulations such as laws governing collective bargaining processes, labour standards and working conditions have contributed to high unemployment by rendering the labour market inflexible. In addition changes in the labour market institutions consist of significant costs to employers and consequently deter employment creation. An important issue raised in this study was that government alone cannot combat high level of unemployment that is in South Africa. The government needs to create conducive environment and flexible labour market policies or legislations that entice many private sector and small businesses, thus consolidating the existing entrepreneurship with the new entrepreneurial so as to creates more employment and absorbing a large pool of unemployed group.

- Attainment of high growth and creation of decent employment still remains a challenge in South Africa. The study revealed that economic growth plays a vital role in curtailing down unemployment levels. However, in order to achieve impressive growth rates that will help to boon the nation or economy and boost the demand for labour and decent employment creation. Policymakers should create policies that support and promotes accelerated and sustained economic growth.
- The study revealed that a one per cent increase in BUG increases unemployment by approximately 0.609. In contrary, some economists and policymakers acclaimed the use of adopting a budget deficit policy; when government spends more than the revenue it collects so as to promote and boost employment creation thus reduces unemployment levels. However to curtail down the unemployment levels, the study suggest that the South African government should re-direct its spending towards activities that directly or indirectly promote the creation of employment through improving healthcare facilities, infrastructure development strategy, education and employment inducing programmes. Even activities that help in crime fighting can assist in creating a good reputation for South Africa and to be a safe investment destination for many investors (whether they are domestic or international investors), consequently reducing unemployment levels.
- Unemployment has been persistent for quite some time. Samson et al (2001) elucidated that the technological production method employed within the South African economy is more capital intensity rather than labour intensity and also increasing the demanding for skilled labour. This tend to be a challenging factor since the most unemployed groups are unskilled and less skilled labour therefore job creation policies on sectors that employ these groups should be prioritised through engaging in labour intensive industries.

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