The Effect of Socio-Economic Challenges of Youth Unemployment in Limpopo on the Economy of South Africa

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Abstract

Youth unemployment is rife in South Africa, especially in rural communities such as those in the Limpopo province. Young people in those areas therefore end up being affected by drugs, alcohol abuse, HIV/AIDS and crime. Young people in many parts of the country are unskilled or semi-skilled; those with tertiary education are in the minority. Many of these young people are therefore not participating actively in the economy of the country. They depend on the government to meet their basic needs. A study was conducted in the Capricorn District of Limpopo, with participants from two municipalities, namely, Polokwane and Lepelle-Nkumpi. These municipalities were identified because of their number of active youth programmes. A total of 54 individuals participated in the study. They included the municipality officials and young people. A quantitative research approach was used to collect and analyse the data. A Likert scale was used as a research instrument to collect the data. Self-administered questionnaires were distributed to the selected participants. The Statistical Package for the Social Sciences version 25 was used to analyse the data. The results indicated that poverty as a socio-economic factor affects the development of youth and their prospects of meaningful contribution to the economy of South Africa. The study therefore recommended that changes be effected in the education system. The youth will have to develop entrepreneurship skills through rigorous programmes.

Keywords: inequality; poverty; unemployment; socio-economic challenges

26 Introduction

27 One of the major socio-economic challenges that young South Africans face is
28 unemployment. Pasara and Garidzirai (2020) maintain that high levels of youth
29 unemployment in South Africa serves as an area for concern, especially against the
30 backdrop of stagnant economic growth and decreasing foreign direct investments. The
31 situation has worsened under the Covid-19 pandemic, which saw many people including
32 the youth lose their jobs as companies collapsed under the difficult economic
33 environment.

34 Naidoo and Wilson (2021) reported that youth unemployment in South Africa is at a
35 new high of 32.6 per cent and has steadily been on the rise for the past two and half
36 decades. The statistics of youth unemployment in South Africa stands at 46.3 per cent
37 during the first quarter of 2021. The statistics refers to the age group 15–34 years who
38 are actively seeking employment. The total number of unemployed youths in South
39 Africa is 7.2 million. The education level of 52.4 per cent is less than matric and
40 37.7 per cent have matric. Only 2.1 per cent of unemployed persons were graduates and
41 7.5 per cent had other tertiary qualifications (*Businesstech* 2021).

42 In South Africa, unemployment is not the only challenge that the youth faces; other
43 challenges include HIV/AIDS, drug abuse, crime, illiteracy, alcohol abuse and teenage
44 pregnancies. These challenges have a negative impact on the South African economy;
45 HIV/AIDS is a typical example. Young girls, particularly underage girls, contract the
46 virus early in their lives when they get pregnant. The disease therefore affects their
47 prospects of leading a healthy life and participating actively in the economy. Disease
48 management compounds the fiscal problems of the country and stalls the government's
49 ability to focus on the triple challenges of poverty, inequality and unemployment. Stats
50 SA (2019) maintains that South Africa has purposed to improve the lives of its citizens
51 by targeting poverty, inequality and unemployment, especially unemployment among
52 the youth.

53 The challenges of youth unemployment affect all the provinces differently. The
54 provinces that are economically feasible such as Gauteng and the Western Cape are
55 commonly expected to have lower unemployment numbers, but that is not always the
56 case. Nevertheless, provinces such as Limpopo, the Eastern Cape and the Northern Cape
57 have high youth unemployment numbers because of their small economies. Stats SA
58 (2020a) reported that education and prior experience play an important role in getting
59 access to the labour market, irrespective of the provinces. More often than not, adults
60 who are well trained and have good qualifications therefore stand a better chance of
61 being employed as compared to the inexperienced youth, who may sometimes have
62 excellent technological skills.

63 The research has therefore looked into the statistics of youth unemployment in the nine
64 provinces and compared these statistics with the unemployed rates of adults in the same
65 provinces. This was done to highlight the scourge of youth unemployment in the

66 country. Table 1 presents the statistics of youth unemployment in the nine provinces of
67 South Africa.

68 **Table 1:** Statistics of youth unemployment across the nine provinces in South Africa

Names of provinces	Youth unemployment statistics (%)	Adult unemployment statistics (%)
Limpopo	30.4	11.0
Mpumalanga	38.8	17.5
Northern Cape	45.1	22.3
Eastern Cape	41.0	18.3
Western Cape	29.9	13.6
Gauteng	39.8	19.5
Free State	39.4	21.3
North West	39.7	17.7
KwaZulu-Natal	33.4	13.8

69 Stats SA 2017

70 The statistics presented in Table 1 indicates that every province of South Africa
71 experience unemployment. However, the focus of this research was on the Limpopo
72 province. This study investigated the effect of socio-economic challenges of youth
73 unemployment in Limpopo on the economy of South Africa.

74 ## The Problem Statement

75 The South African economy is steadily declining and that affects the chances of job
76 opportunities for young people. Mathe (2020) reported in the *Mail and Guardian* (2020)
77 that the economy of South Africa is in a severe recession and is quickly declining. With
78 the declining economy, many young people hoping to get employment therefore may
79 become despondent. They may end up joining other young people who engage in illegal
80 activities such as drug abuse. Mazorodze (2020) observed that unemployed youths have
81 an inclination to engage in criminal offences owing to frustrations and that
82 unemployment is a catalyst for violent crime.

83 *Africa News* (2017) reported that drug abuse among the youth is on the rise, especially
84 in the areas in which unemployment is high; those areas also have a high rate of crime.
85 Unemployment therefore has a ripple effect on society. Kgotlane, Mudau and Ncube
86 (2018) agree that unemployed youths experience several challenges that also affect their
87 families and society. Most young people lack skills that can help them contribute to the
88 economy.

89 Nevertheless, young people should be encouraged to change their way of thinking and
90 begin to make a living for themselves. They should tap into different initiatives and
91 programmes that are meant to equip them with entrepreneurial skills. The government
92 has initiated several policies and strategies to redress youth challenges. Some of those
93 strategies include the formation of agencies such as the National Development Agency
94 and the National Youth Development Agency. These agencies have offices in all nine
95 provinces for ease of access. However, in rural provinces such as Limpopo, some youths
96 fail to access and benefit from such services. As a result, local municipalities facilitate
97 most youth development programmes.

98 Youth development programmes intrigued the researchers to investigate socio-
99 economic factors against several opportunities that government has created. The
100 question that remains, which can also serve as an area for further research, is how many
101 youth programmes focus on entrepreneurial skills that redress youth unemployment.
102 Most research studies focused on youth programmes without probing the impact of
103 socio-economic challenges of youth unemployment on the economy of the provinces.
104 There is a paucity of research on the effect of socio-economic factors on the economy
105 of Limpopo, hence this study.

The Aim of the Study

107 The aim of the study was to investigate the socio-economic effects of unemployment
108 on the economy of the Capricorn District Municipality in the Limpopo province.

Objectives of the Study

110 The objectives of the study are as follows:

111 • investigate the level of youth unemployment in the Capricorn District
112   Municipality, Limpopo;

113 • assess the effects of youth unemployment on the economy of the Capricorn
114   District Municipality, Limpopo; and

115 • suggest strategies that can mitigate unemployment challenges in the Capricorn
116   District Municipality, Limpopo.

The Socio-Economic Challenges Associated with Youth Unemployment

118 Socio-economic factors affect young people in several ways. The American
119 Psychological Association (2021) maintain that socio-economic challenges affect the
120 overall functioning of the youth, especially their physical and mental health and the way
121 in which they attain educationally and in the work environment. The same could be said

122 about the youth of the Capricorn District Municipality. The following challenges will
123 therefore be discussed:

124 •   health challenges associated with youth unemployment;

125 •   criminality among the youth; and

126 •   discouragement from the labour force.

Health Challenges Associated with Youth Unemployment

128 In the context of good health, young people who are not physically, mentally and
129 otherwise fit cannot enter the labour market with ease. They pass the fitness test with
130 difficulties. Companies need people who are healthy because those individuals will not
131 be a burden to them and will contribute positively towards production. The World
132 Health Organization (2020) agrees that physically fit and active individuals can ward
133 off sicknesses. Such individuals generally improve their mental health and overall well-
134 being.

Criminality among the Youth

136 Criminality prevents several young people from engaging in meaningful employment.
137 They join gangs and use drugs. As a result, they deprive the country of certain skills that
138 could have been developed. Yu (2018) observed that young people who engage in
139 criminal activities do not have certain skills that are necessary in certain job positions.
140 Such individuals end up considering crime as an alternative.

Discouragement from the Labour Market

142 The high unemployment rate in South Africa, especially among the youth, has
143 discouraged many young people from seeking employment. As a result, they do not
144 contribute to the growth of the economy. Stats SA (2020b) reported that in the first
145 quarter of 2020, 20.4 million young people between the ages of 15 and 34 years were
146 unemployed. The rate of unemployment among that group was 43.2 per cent with the
147 graduates standing a better chance of being employed. The less skilled individuals were
148 the vulnerable group that was discouraged from seeking employment. Many young
149 people have not been taught to become entrepreneurs. They rely on the government to
150 create jobs for them.

151 Suggested Solutions to Socio-Economic Challenges among the Youth

Education Reforms

153 South Africa has good legislation with regard to education reform; however, such
154 legislation is not implemented fully. For example, many children still do not complete
155 compulsory schooling. There is therefore a sizeable number of unskilled labour among
156 the youth. Enough resources should be allocated to reach poor provinces such as
157 Limpopo. Some schools in the province do not have running water, electricity or proper

158 ablution facilities. Effective education is therefore compromised in those areas.
159 Libraries, laboratories and good career guidance should be provided to all children
160 (Mlatsheni and Leibbrandt 2011). Children from poor families do not perform to their
161 maximum owing to a lack of essential resources. The Indian Economic Development
162 (2021) mentions there is a close link between unemployment and poverty; an
163 unemployed young person will not have the resources that will help them to realise their
164 potential.

Research Methodology

166 The term methodology in research encompasses the design, methods, approaches and
167 procedures to be followed in research. The methodology enables the researcher to plan
168 and execute the research in a meticulous manner.

Research Paradigm

170 The research paradigm provides a framework within which the researcher can view the
171 world. A positivism research paradigm was therefore used in this study to provide
172 principles of objectivity (Bryman et al. 2014).

Research Method

174 A quantitative research method was used in the study to collect the data. The research
175 method was determined by the nature of the study (Bryman et al. 2014).

Research Area

177 Limpopo is one of the nine provinces in South Africa and is bordered by Zimbabwe,
178 Mozambique and Botswana. Limpopo is predominantly rural and has three predominant
179 indigenous languages, namely Tshivenda, Sepedi and Xitsonga. The province is made
180 up of three former homelands, with the Sepedi-speaking people in Lebowa, the
181 Xitsonga-speaking people in Gazankulu and the Tshivenda-speaking people in Venda.
182 The capital is Polokwane. People have been migrating to Polokwane from other parts
183 of the province to seek economic opportunities and employment (Polokwane
184 Municipality 2021).

Population of the Study

186 A population refers to a large group of individuals, who together can be helpful in the
187 study (Creswell 2009). The population of the study consisted of officials working in the
188 youth programmes in the Capricorn District and young people participating in these
189 programmes.

190 **Sample, Sampling Method and Sample Size**

191 A sample was drawn from two municipalities in the Capricorn District, namely,
192 Polokwane and Lepelle-Nkumpi. The study used the stratified random sampling method
193 as a research sample tool.

194 The stratified random sampling method requires that the sample be divided into smaller
195 groups called strata. A total of 12 officials and 15 youths from each municipality
196 participated in the study. The total of the sample size was 54 participants (Table 2).

197 **Table 2:** Sample size

Name of municipality	Number of officials	Number of youths
Polokwane	12	15
Lepelle-Nkumpi	12	15
Total	24	39

198

199 **Research Instrument and Data Collection**

200 Walliman (2011) states that questionnaires can be used as research instruments to collect
201 data. Self-administered questionnaires were therefore used to collect the data for this
202 study. The participants voluntarily gave their consent to participate in the study
203 (Bhattacherjee 2020).

204 Data Presentation and Analysis

205 In this research, the Statistical Package for the Social Sciences (SPSS) software
206 version 25 was applied as a data manipulative technique. The researcher collected data
207 and obtained the services of a statistician to help with the statistical analysis (Johnson
208 and Onwuegbuzie 2004).

209 **Gender**

210 There was a need to determine the gender of the participants to enable the researcher to
211 make their biographical inferences. Figure 1 depicts the gender of the participants.

212 Figure 1 shows that the male participants constitute 30 (56%) of the participants and
213 surpass their female counterparts, who constitute the remaining 24 (44%) of the
214 participants. The results indicate that most participants in this study are males.
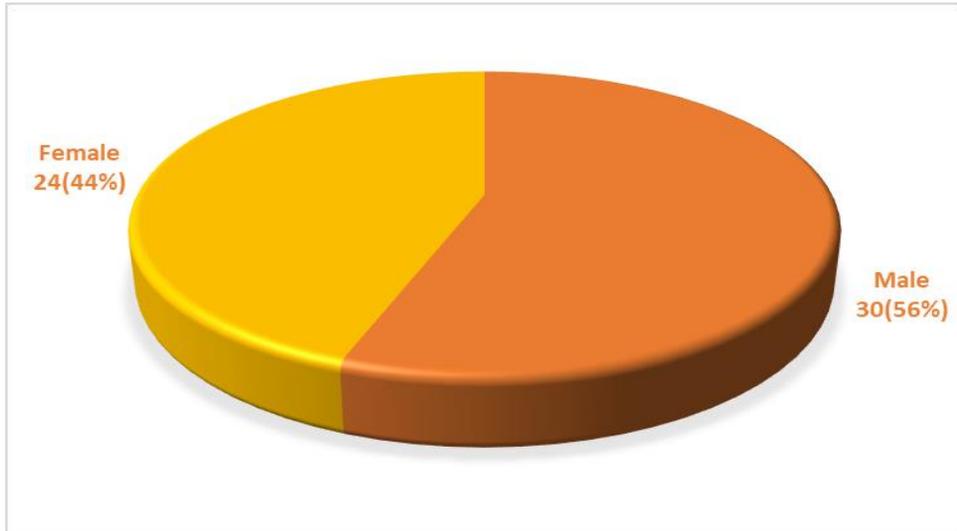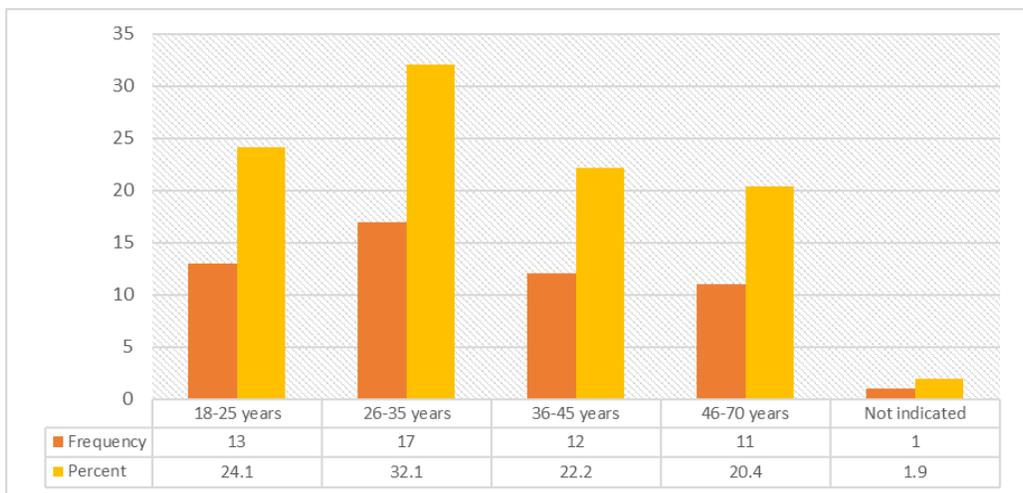
215 **Figure 1:** Gender of the participants

216 **Age Distribution**

217 The participants had to indicate their ages to establish whether age had any impact on
218 the effect of the socio-economic challenges of youth unemployment on the economy of
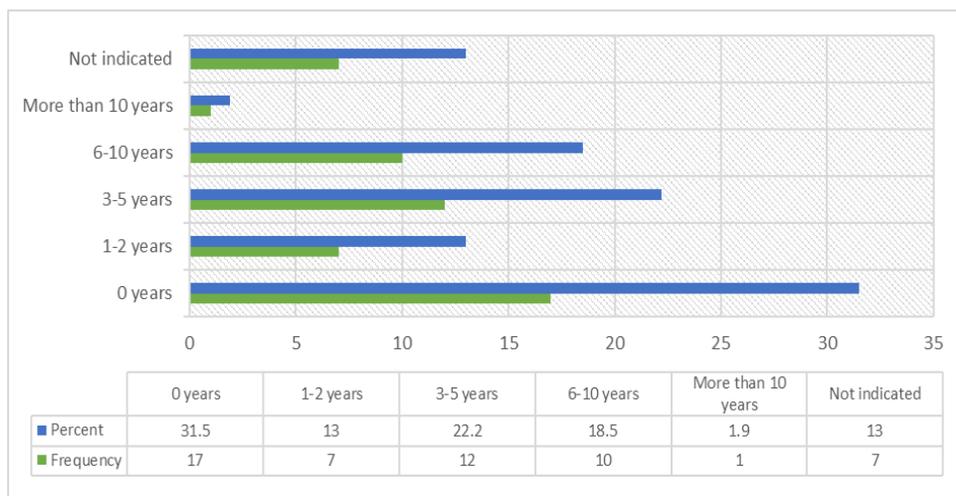219 South Africa.

220 Figure 2 shows that 32 per cent ($n = 17$) of the participants were between 26 and 35
221 years of age, 24 per cent ($n = 13$) were between 18 and 25 years of age, 22 per cent
222 ($n = 12$) were between 36 and 45 years of age, 20 per cent ($n = 11$) were between 46
223 and 70 years of age, and 2 per cent ($n = 1$) of the participants did not indicate their age.

	18-25 years	26-35 years	36-45 years	46-70 years	Not indicated
Frequency	13	17	12	11	1
Percent	24.1	32.1	22.2	20.4	1.9

224 **Figure 2:** Age distribution of participants

8

Work Experience

The researcher solicited information on the number of years of work experience that the participants have in their current position. The participants were asked to indicate the total number of years they had worked in South Africa. Figure 3 presents the results of the registry officers who participated in this study. It also demonstrates that most of the participants, 17 (32%), had minimal experience and just 7 (13%) had served for 1 to 2 years. The analysis also shows that only 12 (22%) served for 3 to 5 years, 10 (19%) served for 6 to 10 years and 1 (2%) worked for over 10 years. The overall results highlight that most of the youths are unemployed.

	0 years	1-2 years	3-5 years	6-10 years	More than 10 years	Not indicated
Percent	31.5	13	22.2	18.5	1.9	13
Frequency	17	7	12	10	1	7

**Figure 3:** Years of work experience

Educational Background

Table 3 indicates the level of education among the participants in the sample. The fact that most participants have a college education suggests the willingness of the participants to improve their knowledge. There has been no correlation between illiteracy and compliance with regard to literature on adherence; the contrary has been established (Heyer and Ogunbanjo 2006).

Table 3: Level of education

Education	Frequency	Percentage
High school	11	20.4
College diploma	23	42.6
University degree	15	27.8
Not indicated	5	9.3
Total	54	100

243 Figure 4 indicates that 43 per cent of the participants obtained college diplomas as their
244 highest qualification. It also indicates that 9 per cent of the participants did not reflect
245 their level of education. The pie chart further shows that at least 28 per cent of the
246 participants have a junior degree and 20 per cent of the participants have attended high
247 school.
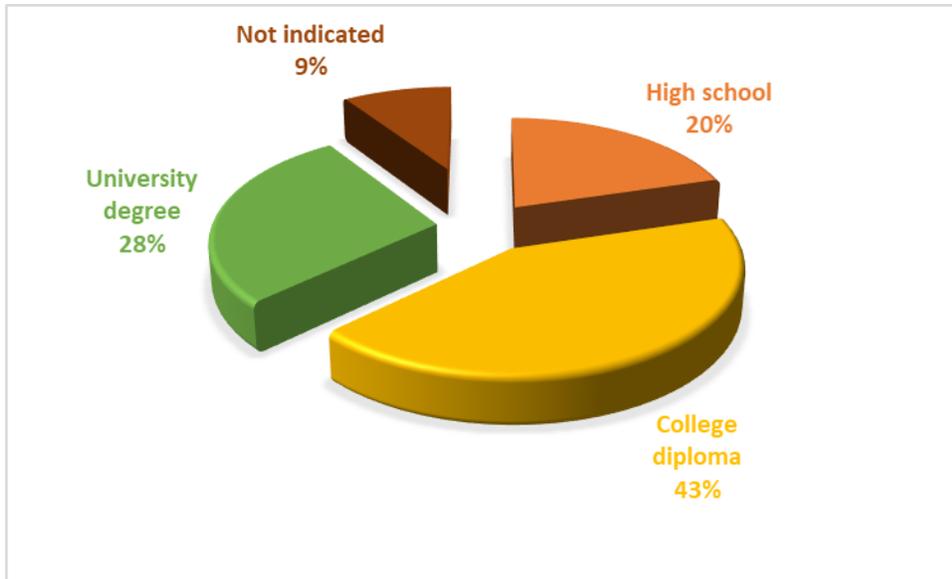
248 **Figure 4:** Level of education

249 Reliability Testing

250 Many mathematical measures can assess internal accuracy. Examples include Average
251 Inter-Item Correlation, Average Item Overall Correlation, Split-Half Precision, and
252 Cronbach's alpha (Wells and Wollack 2003). Throughout the process of this analysis,
253 Cronbach's alpha is used as an intrinsic accuracy test. Cronbach's alpha is also called a
254 test of the homogeneity of the element, i.e. high alpha values mean that the objects are
255 tapping a similar domain. The size of the Cronbach reliability measure varies from 0 to
256 1. Scores close to 1 mean that the instrument has good reliability and scores close to 0
257 suggest that the reliability of the instrument is poor (Wells and Wollack 2003). Most
258 researchers require a reliability of at least 0.7 before they can use the instrument. In this
259 study, the SPSS version 25 is used to test the reliability of the measuring instrument.
260 Once again, the test for Cronbach's alpha proved both appropriate and handy as it
261 summarised intercorrelations among the items on the grade 12 educators' perception of
262 their capacity to perform their duties.

263 Table 4 indicates that Cronbach's alpha for each test definition varies from 0.743 to
264 0.803 and is therefore all above the appropriate value of 0.6, while the average

265 Cronbach's alpha is 0.786, which is on the reasonable limit as suggested by Wells and
266 Wollack (2003). The significance of the typical inter-item correlation is higher than the
267 minimum reasonable value of the correlation.

268 **Table 4:** Reliability testing

Cronbach's alpha		Inter-item correlations	N of items
0.786		0.319	8
Item total statistics			
		Cronbach's alpha	
B1	Youths experience several challenges due to unemployment	0.752	
B2	Unemployment may lead to alcohol or drug abuse	0.755	
B3	Youth unemployment contributes to a high crime rate in your area	0.737	
B4	Many social ills and high pregnancy rates among underage girls are due to the high unemployment rate	0.803	
B5	Unemployed youths are generally discouraged in life	0.737	
B6	Unemployed youths do not contribute to the economic growth	0.743	
B7	Peer pressure contributes to unemployed youths making wrong choices in life	0.774	
B8	The economic impact by the youth contributes to a larger extent to the well-being of the country's economy if unemployment is reduced	0.790	

269

Exploratory Factor Analysis of the Effect of Unemployment on the Socio-Economics Factors of the Youth

272 An exploratory factor analysis is a statistical technique used to identify a set of latent
273 (hidden) constructs underlying a battery of measured variables (Norris and Lecavalier
274 2009). Howell, Breivik and Wilcox (2007) also describe exploratory factor analysis as
275 a set of procedures used to reduce, summarise and identify simple patterns and factors
276 underlying relationships between variables.

277 Grouping the variables and reducing them to a small set of factors will aid in
278 understanding the relationship between the variables (Williams, Edwards, and
279 Vandenberg 2003). In agreement, Toni and Tonchia (2001) highlight that the
280 exploratory factor analysis is conducted to uncover the underlying dimensions, to
281 eliminate problems of multicollinearity, and to reduce the number of variables to smaller
282 sets of factors, hence the name factor analysis. An exploratory factor analysis was
283 selected because it is applicable when the researcher does not have a priori hypothesis
284 about the factors or patterns of measured variables (Bandalos and Boehm-Kaufman
285 2009), which is the case in this study.

286 This study is an analysis of 28 variables associated with the effect of socio-economic
287 challenges of youth unemployment on the South African economy. The first step in
288 conducting a factor analysis was to produce a correlation matrix to determine if the
289 study variables are related and, if they are, to what extent. If no correlation exceeds 30
290 then the use of factor analysis is questionable (Williams, Edwards, and Vandenberg
291 2003). Bandalos and Boehm-Kaufman (2009) advise that researchers look for a
292 substantial number of large correlations, but add, "how large is somewhat arbitrary."
293 The correlation matrix showed the relationships of all 28 variables in this study. The
294 correlation matrix yielded a substantial number of large correlations indicating that
295 factor analysis is an appropriate statistical methodology.

296 The principal component analysis was carried out on the effect of socio-economic
297 challenges of youth unemployment on the South African economy. Table 4 indicates
298 that the scale obtained an acceptable Kaiser Mayer-Olkin (KMO) measure of sampling
299 adequacy value of 0.673 and that the value of Bartlett's test of sphericity was significant
300 at 180.375 (df = 28, $p = 0.000$). As expected, 2 factors with 18 values above 1 were
301 extracted, explaining approximately 86.54 per cent and 22.397 per cent of the variance
302 respectively. See also Table 5.

303 **Table 4:** KMO and Bartlett's tests

KMO and Bartlett's tests		
KMO test for sampling adequacy		.673
Bartlett's test of sphericity	Approx. chi-square	180.375
	Df	28
	Sig.	.000

304

305 **Table 5:** Exploratory factor analysis of the effect of unemployment on the socio-
306 economics factors of the youth

Component matrix	F1	F2	F3	F4
Youths experience several challenges due to unemployment	0.745	−0.482	−0.151	0.08
Unemployment may lead to alcohol or drug abuse	0.715	−0.368	0.03	0.484
Youth unemployment contributes to a high crime rate in your area	0.787	0.026	−0.392	0.306
Many social ills and a high pregnancy rate among underage girls are due to the high unemployment rate	0.371	0.779	0.193	0.312
Unemployed youths are generally discouraged in life	0.731	0.214	0.359	−0.33
Unemployed youths do not contribute to the economic growth	0.708	0.484	−0.303	−0.185
Peer pressure contributes to unemployed youths making wrong choices in life	0.602	−0.199	−0.082	−0.695
The economic impact by the youth contributes to a larger extent to the well-being of the country's economy if unemployment is eradicated	0.388	−0.175	0.849	0.073

307

Descriptive Statistics

309 The rewards scale shows that on average the participants had been neither satisfied nor
310 dissatisfied with their rewards, therefore ($\bar{x} = 1.96$; SD = 0.548). The mean for the
311 employee motivation scale showed that most participants' level of motivation was
312 neither high nor low ($\bar{x} = 1.83$; SD = .423). The acceptable values for skewness and
313 kurtosis fall within −2 and +2 (George and Mallery 2010). As indicated in Table 6, both
314 the rewards scale and the motivation scale had acceptable values of skewness and
315 kurtosis, thereby suggesting normality.

316 Table 6 presents the statements with mean and standard deviation results. Youth
317 experience has several challenges due to unemployment ($\bar{x} = 1.83$, SD = 0.423).
318 Unemployment may lead to alcohol or drug abuse ($\bar{x} = 1.85$, SD = 0.452). Youth
319 unemployment contributes to the high crime rate in the area ($\bar{x} = 1.89$, SD = 0.462).
320 Many social ills and the high pregnancy rates among underage girls are due to the high
321 unemployment rate ($\bar{x} = 1.96$, SD = 0.548). Unemployed youths are generally

322 discouraged in life ($\bar{x}$ = 1.83, SD = 0.466). Unemployed youths do not contribute to
323 economic growth ($\bar{x}$ = 1.98, SD = 0.532). Peer pressure contributes to unemployed
324 youths making wrong choices in life ($\bar{x}$ = 1.91, SD = 0.486). The economic impact on
325 the youth contributes to a larger extent to the well-being of the country's economy if
326 unemployment is eradicated ($\bar{x}$ = 1.89, SD = 0.372).

327 **Table 6:** Descriptive statistics

	Mean	Std deviation	Analysis N
Youths experience several challenges due to unemployment	1.83	0.423	54
Unemployment may lead to alcohol or drug abuse	1.85	0.452	54
Youth unemployment contributes to the high crime rate in your area	1.89	0.462	54
Many social ills and high pregnancy rates among underage girls are due to high unemployment rate	1.96	0.548	54
Unemployed youths are generally discouraged in life	1.83	0.466	54
Unemployed youths do not contribute to the economic growth	1.98	0.532	54
Peer pressure contributes to unemployed youths making wrong choices in life	1.91	0.486	54
The economic impact by the youth contributes to a larger extent to the well-being of the country's economy if unemployment is eradicated	1.89	0.372	54

328

Testing for Normality

330 An assumption in regression is that the dependent variable is normally distributed.
331 Normality is used to describe a symmetrical, bell-shaped curve, which has the greatest
332 frequency of scores around in the middle combined with smaller frequencies towards
333 the extremes (Pallant 2005). The histogram in Table 7 appears to be approximately
334 normally distributed. See also Table 8.

335 **Table 7:** Testing for normality

			Statistic	Std error
The effect of socio-economic challenges of the youth unemployment on the economy of South Africa	Mean		15.15	.324
	95% confidence interval for mean	Lower bound	14.50	
		Upper bound	15.80	
	5% Trimmed mean		15.30	
	Median		16.00	
	Variance		5.676	
	Std. deviation		2.382	
	Minimum		8	
	Maximum		20	
	Range		12	
	Interquartile range		2	
	Skewness		−1.321	.325
	Kurtosis		2.457	.639

336

337 **Table 8:** Tests of normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Effect of socio-economic challenges of the youth unemployment on the economy of South Africa	.325	54	.000	.795	54	.000
[a]Lilliefors significance correction						

338

339   The results as depicted in Figure 5 show that all variables are normally distributed.
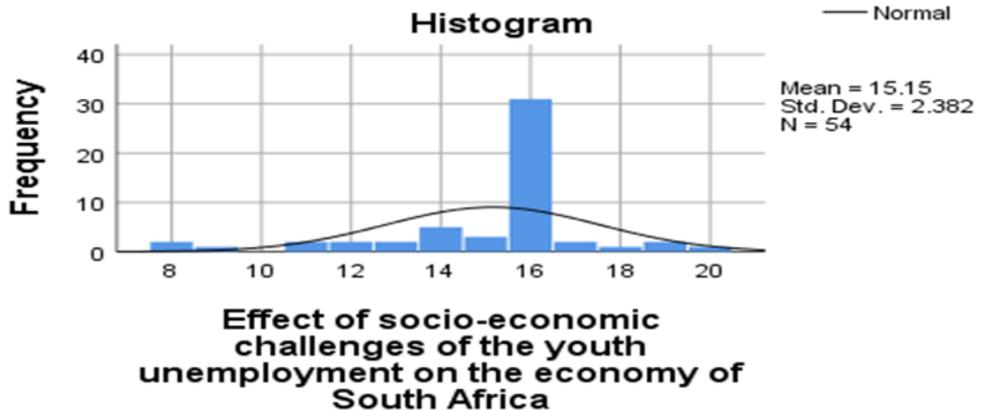
340   **Figure 5:** Normal distribution variables ($n = 54$)

The Status of Youth Unemployment in South Africa

342   South Africa has been a victim of high unemployment rates, with the official
343   unemployment rate rising from 15.6 per cent in 1995 to a peak of 30.3 per cent in 2001.
344   The unemployment rate minimally declined to 26.7 per cent, recording a differential of
345   11 percentage points since 1995. Limpopo has the highest proportion of rural dwellers
346   in South Africa; therefore it is expected that conditions in the province are inferior to
347   those of national average, implying a higher unemployment rate. After the demise of
348   apartheid (post-1994), the supply of labour exponentially increased. The nascent labour
349   entrants characterised as unskilled increased dramatically, but as the economy grew,
350   there was a drastic shift towards a more skill-based economy creating massive lay-offs.
351   This study attempts to find the determinants of unemployment in the Limpopo province
352   using the annual census data of 2008 from Global Insight.

Strategies that can Mitigate Unemployment Challenges

Regression Analysis

355   When running a regression, the main objective is to discover whether the coefficients
356   of the independent variables differ from 0 (the independent variables genuinely affect
357   the dependent variable). Regression seeks to establish whether any apparent differences
358   from 0 are due to random chance. The null hypothesis always shows that each
359   independent variable has no effect (has a coefficient of 0) and will be looking for a
360   reason to reject this theory. Several regression models were carried out to test the
361   relationship between the variables. The regression analysis was undertaken at a 5 per

362 cent significance level. The study obtained the model summary statistics as revealed in
363 Table 9.

A Model Summary

365 The study set out to investigate the effect of socio-economic challenges of youth
366 unemployment on the South African economy. The results reveal that there is a weak
367 positive correction of ($R = 0.023$) between the dependent variable (effects of youth
368 unemployment) and the predictors. The results further indicate that the value of the
369 adjusted R-square was −0.07. This implies that the predictors (gender, age, work
370 experience and level of education) can account for 7 per cent of the change effects of
371 youth unemployment. A Durbin-Watson statistic of 1.723 indicates that the variable
372 residuals were not serially correlated since the value was over 1.5.

373 **Table 9:** Model summary

Model	R	R-square	Adjusted R-square	Std. error of the estimate	R-square change	Sig. F change	Durbin-Watson
1	.151a	0.023	−0.07	2.445	0.023	0.912	1.723

374

Analysis of Variance

376 The study sought to confirm the goodness of the regression model through the analysis
377 of variance (ANOVA) test. The outcomes of the ANOVA test are provided in Table 10.

378 **Table 10:** ANOVA test

Model		Sum of Squares	Df	Mean square	F	Sig.
1	Regression	5.821	4	1.455	.244	.912[a]
	Residual	250.988	42	5.976		
	Total	256.809	46			
[a]Predictors: (Constant), educational background, gender, age, work experience						

379

380 Based on results of the ANOVA test as indicated in Table 10, it is determined that the
381 regression model had a significance level of 0.0 per cent which indicates that the model
382 was ideal for predicting the effect of youth unemployment on socio-economic

383 challenges because the value of significance ($P = 0.000$) was less than 5 per cent. This
384 means that the model is fit for the data.

385 Coefficients of Determination

386 The coefficients of determination was used as indicators of the direction of the
387 relationship between predictors (gender, age, work experience and level of education)
388 and the effect of youth unemployment. The P-value under the significance level section
389 was connected to demonstrate the importance of the connection between the response
390 and predictor factors. At a 95 per cent certainty level, a p-estimation of under 0.05 was
391 deciphered as a proportion of factual significance. A p-value above 0.05 shows a
392 statistically insignificant relationship between the dependent and the independent
393 variables. Table 11 gives the results.

394 **Table 11:** Coefficients of determination

Coefficients						
Model		**Unstandardised Coefficients**		**Standardised Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	14.433	1.874		7.701	.000
	Gender	.578	.756	.123	.765	.449
	Age	−.206	.391	−.096	−.528	.600
	Work experience	−.030	.358	−.016	−.083	.935
	Educational background	.118	.616	.037	.191	.849

395

396 Based on the results above, predictor factors such as gender and level of education
397 produced positive and statistically insignificant values of this study (high t-
398 value $= 0.765$ and $p = 0.449$ and t-value $= 0.191$ and $p = 0.849$ respectively). Age and
399 work experience produced negative but statistically insignificant values for this study
400 as evidenced by $t = -0.528$ and $p = 0.600$, t-value $= -016$ and $p = 0.935$ respectively.

401 The following regression equation was estimated:

402 $Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \epsilon_{ij}$
403 $= 14.43 + 0.578 x_1 - 0.206 x_2 - 0.030 x_3 + .0118 x_4$

404   Where

405   Y = effect of youth unemployment

406   x_1 = gender

407   x_2 = age

408   x_3 = work experience

409   x_4 = level of education

410   In the estimated regression model above, the constant 14.43 shows that if predictor
411   factors (gender, age, work experience and level of education) were rated zero, the effect
412   of youth unemployment would be 14.43. A unit increase in gender and level of
413   education would result in a decrease in the effect of youth unemployment by 0.578 and
414   0.0118 respectively. A unit increase in age and work experience would result in a
415   decrease in the effect of youth unemployment by 0.206 and 0.030 respectively.

416   ## Conclusion

417   Initially, the linear regression was computed to discriminate between two sets of the
418   effect of socio-economic challenges of youth unemployment on the economy of South
419   Africa. Subsequently, descriptive statistics were computed for all the constructs. The
420   discriminant validity test indicate that scales differed significantly from each other in
421   measurement theory, therefore there is no severe multicollinearity. In contrast,
422   reliability for all the constructs is greater than 70 indicating internal consistency of
423   variables in constructs. The results indicate that Cronbach's alpha value for each
424   construct range from 0.743 to 0.803, hence above 0.70 as recommended by the literature
425   (Gliem and Gliem 2003). Two statistical tests, namely, the KMO test and Bartlett's test
426   were computed to determine sampling adequacy and ascertain that the data captured in
427   this study were suitable for an exploratory factor analysis. The results indicate that the
428   KMO measure of sampling adequacy was calculated at 0.673 and Bartlett's test of
429   sphericity at a significant p-value = 0.000 supported by an approximated chi-square of
430   180.325 at 28 degrees of freedom (df). This result indicates that the data were suitable
431   for a factor analysis (Field 2009).

432   The normality tests indicate that the data collected were fairly distributed and therefore
433   appropriate for computing correlations and hierarchical regressions. The Shapiro-Wilk
434   results indicate that the p-value for all constructs was greater than the α-statistic for all
435   the constructs. The null hypothesis that the data came from a normally distributed
436   population is therefore not rejected. The Pearson correlation coefficients indicate
437   adequate linear and contingency relationships. Subsequently, the regression analysis
438   was computed. A regression analysis indicates that the effect of socio-economic
439   challenges of youth unemployment on the economy of South Africa was positively and
440   significantly influenced by socio-economic factors ($R = 0.023$ ($R^2 = 23\%$, $p = .000$)).

441 # Recommendations

442 **Strategies to Mitigate Youth Unemployment Challenges in Limpopo**

443 The government of South Africa has to develop strategies that can mitigate youth
444 unemployment. The African Development Bank group (2012) reported that many young
445 people in Africa find themselves unemployed owing to a lack of skills or being
446 vulnerable to informal employment; South Africa's youth is not an exception.

447 **Education**

448 The results indicate that a higher percentage of the participants have a college diploma
449 and a smaller percentage shows that some have a university degree. The problem here
450 is that even though they have tertiary education, they could be irrelevant to the working
451 environment. Programmes offered at institutions of higher learning should be aligned
452 with what the job market needs. Institutions should train students to become
453 entrepreneurs. This will help the students to not rely on jobs, but to start their own small
454 businesses.

455 **Entrepreneurship**

456 Successful governments are those that drive entrepreneurship at all levels of schooling;
457 not all learners can be doctors, nurses, teachers, or other professionals. Some learners
458 have to follow other career paths that can make them entrepreneurs. The government
459 has to encourage colleges to offer courses that redress a shortage of skills in some areas
460 by providing funds.

461 There is a higher rise in the volume of young people making their way into the labour
462 market than the available job opportunities (Perugini and Signorelli 2010).

463 **Technology and Innovation**

464 Innovation and technology are vital in the mitigation of youth unemployment. Good
465 telecommunication networks will help to alleviate the youth unemployment problem.
466 The internet, Wi-Fi and smartphones will help the youth to develop their knowledge and
467 skills. Today's world is full of many technological developments and innovations.
468 Innovation can be radical or incremental; time will be saved when young people use
469 technology in the workplace. Good technological infrastructure must expand to rural
470 communities. This will enable those communities to embrace the fourth industrial
471 revolution, which will help young people to be trained in robotics, 3D-printing and other
472 advancements.

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