

JUNE 2022

# FACT SHEET

2021 GLOBAL COMPETITIVENESS RANKINGS

Authors: Mamphokhu Khuluvhe and Elvis Ganyaupfu



higher education  
& training

Department:  
Higher Education and Training  
REPUBLIC OF SOUTH AFRICA

Department of Higher Education and Training  
123 Francis Baard Street  
Pretoria  
South Africa

Private Bag X174  
Pretoria  
0001

Tel: 0800 87 22 22

[www.dhet.gov.za](http://www.dhet.gov.za)

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Khuluvhe, M. and Ganyaupfu, E.M. (2022). *South Africa's 2021 Global Competitiveness Rankings*. Department of Higher Education and Training, Pretoria.

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Enquiries:

Tel.: 012 312 5465/5345

Fax: 086 457 0289

Email: [khuluvhe.m@dhet.gov.za](mailto:khuluvhe.m@dhet.gov.za) and [ganyaupfu.e@dhet.gov.za](mailto:ganyaupfu.e@dhet.gov.za)

Date of publication: June 2022

## 1. BACKGROUND

The World Competitiveness Yearbook (WCY) report is published annually by the Institute for Management Development (IMD)<sup>1</sup> World Competitiveness Centre and presents global rankings of competitiveness<sup>2</sup> of countries. The report uses a combination<sup>3</sup> of hard statistics and survey data in computing countries' rankings based on how they manage their competencies towards achieving long-term competitiveness. The 2021 World Competitiveness Rankings report, released on 17 June 2021, explores multiple factors that affect the prosperity of sixty-four (64) economies.

The indicators used to measure the competitiveness of countries are organised into four primary (4) factors, whose data is analysed to rank countries according to the way they exhibit their value creation competencies. The four factors and their related sub-factors are as follows:

- (a) **Economic performance:** domestic economy, foreign investment, employment and prices.
- (b) **Government efficiency:** finance, tax policy, institutional framework, business legislation and societal framework.
- (c) **Business efficiency:** productivity and efficiency, labour market, finance, management practices, and attitude and values.
- (d) **Infrastructure:** basic infrastructure, technological infrastructure, scientific infrastructure, *education and training*, and health and environment.

The primary sub-factor that is of relevance to the mandatory work of the DHET is “**education and training**” and its related indicators. The indicators include employee training, total expenditure on education (as a percentage of gross domestic product (GDP)), higher education achievement, graduates in sciences, women with degrees, and pupil-to-teacher ratio (tertiary education).

## 2. PURPOSE

The purpose of this fact sheet is to provide an overview of South Africa's global competitiveness rankings based on the *2021 World Competitiveness Rankings* report released by the IMD World Competitiveness Centre<sup>4</sup>. It focuses on the education and training dimension of South Africa's global competitiveness rankings. The fact sheet presents rankings of overall competitiveness for South Africa and selected nations, and South Africa's competitiveness rankings of the knowledge

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<sup>1</sup> IMD is an independent academic institution founded by business leaders 75 years ago in Switzerland.

<sup>2</sup> Competitiveness refers to a country's productivity level defined by a set of institutions, policies and production factors.

<sup>3</sup> See Appendix 1 for the totals of indicators of hard statistics, survey data and background data per each factor.

<sup>4</sup> <https://www.imd.org/centers/world-competitiveness-center/rankings/world-competitiveness/>

factor and its associated sub-factors (education and training, scientific concentration, and talent), and indicators of the education and training sub-factor.

### 3. METHODOLOGY

#### 3.1. Data<sup>5</sup>

The IMD World Competitiveness Centre used secondary and primary data to compute rankings collected across sixty-four (64) economies. The latter were selected based on the availability of comparable international statistics, and collaborations that IMD had with partner institutes. The secondary data comprised hard statistics collected from numerous official sources listed in Appendix 2, while primary survey data was collected through an Executive Opinion Survey (EOS) conducted among business executives by partner institutes operating in the countries studied.

South Africa's IMD's partner institute, Productivity SA<sup>6</sup>, surveyed business executives for their perspectives on a range of issues such as management practices, adaptive attitudes, corruption, and the agility of firms. Samples of respondents in each surveyed country were representative of their respective entire economies, and covered cross-sections of business communities in all economic sectors of each economy studied.

A total of two hundred and fifty-five (255) indicators were used to compute countries' rankings. Of these, the majority **64 percent** (163) were **hard statistics** indicators, while **36 percent** (92) of indicators were derived from **survey data**. More than 5 800 responses were received from the surveys conducted in the 64 countries, averaging about 90 responses per nation. Secondary data (hard statistics) were collected from several international organisations listed in Appendix 2

#### 3.2. Computation of the rankings

Standardized values for indicators were computed using the data available for **all** economies. Countries were then ranked based on the aggregation of a combination of secondary data and primary data. In most cases, a higher standardized value was better; for example, GDP - an economy with the highest standardized value was ranked the first, while a country with the lowest standardized value was ranked the last.

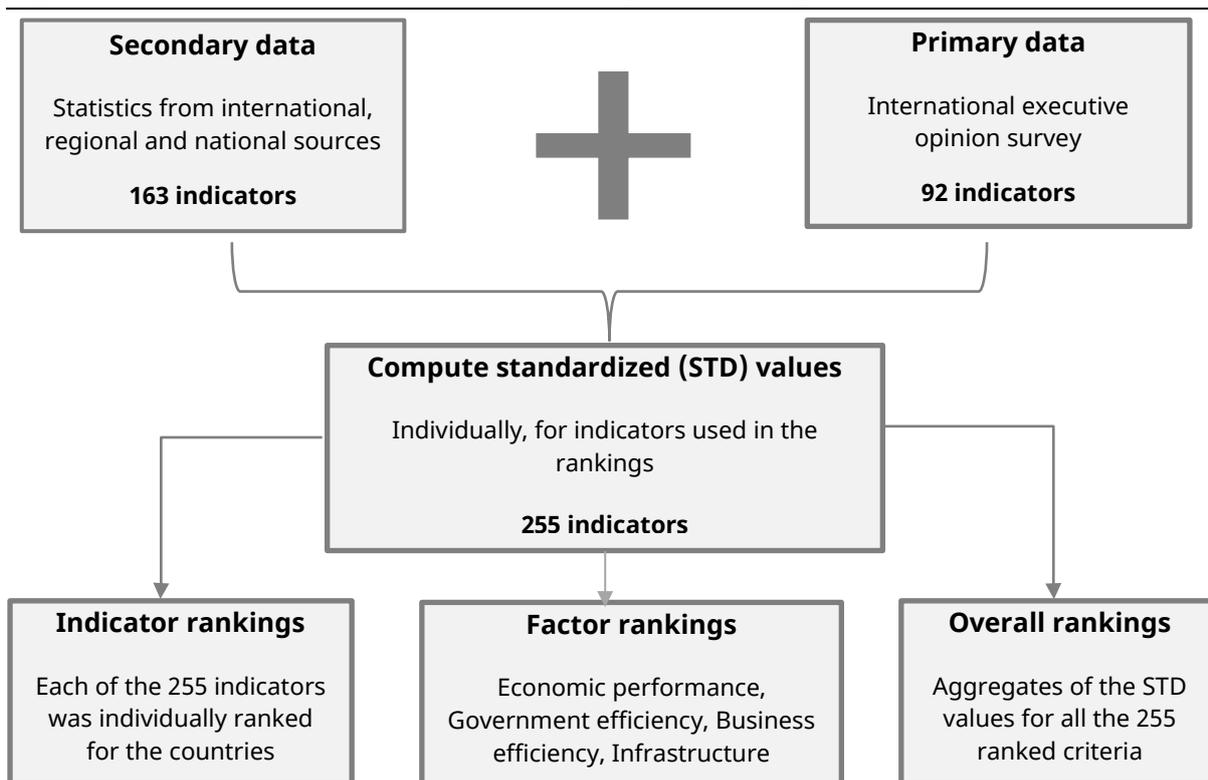
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<sup>5</sup> See Appendix 1 for the totals of indicators of hard statistics, survey data and background data used for computations.

<sup>6</sup> Productivity SA is established in terms of section 31 (1) of the Employment Services Act, No. 4 of 2014 as a juristic person with a mandate to promote employment growth and productivity.

However, the inverse was true for some indicators, where the lowest value indicated the most competitive position; for example, software piracy – an economy with the highest standardized value was ranked last, and a country with the lowest standardized value was ranked the first. Standardized statistics of all economies were aggregated to compute indices. Index values were used to compute overall competitiveness rankings, competitiveness factor rankings, and sub-factor rankings. Figure 1 presents the data and approach used in computing the rankings.

**Figure 1: Data and approach used in computing the rankings**



#### 4. INDICATORS MEASURING THE EDUCATION AND TRAINING SUB-FACTOR

- a) *Employee training*: training provided to employees by companies employing them;
- b) *Education expenditure*: Total public expenditure on education, as a percentage of GDP.
- c) *Higher education achievement*: Percentage of 25-34 year old persons in the population that have attained at least tertiary education.
- d) *Pupil-to-teacher ratio*: Ratio of students to teaching staff (tertiary education).
- e) *Women with a degree*: Share of women in the 25-65 year old population who have a degree.
- f) *Graduates in sciences*: Percentage of graduates in ICT, Engineering, Mathematics and Natural Sciences.

## 5. SUMMARY OF FINDINGS

Table 1 shows South Africa's overall and factor competitiveness rankings in terms of the 64 countries surveyed between 2020 and 2021. Of the 64 countries surveyed in 2021 based on the availability of accurate and reliable primary and secondary data, South Africa's overall competitiveness ranked 62<sup>nd</sup> in 2021, dipping 3 points from 59<sup>th</sup> position in 2020. In 2021, the country ranked 61 in the areas of economic performance, government efficiency, and infrastructure, while business efficiency ranked 58 out of 64 nations.

**Table 1: South Africa's overall and factor competitiveness rankings, 2020 - 2021**

Country	Year		Change in position
	2020	2021	
Overall performance	59	62	▼ -3
Economic performance	61	61	▬ 0
Government efficiency	54	61	▼ -7
Business efficiency	56	58	▼ -2
Infrastructure	61	61	▬ 0

Table 2 presents South Africa's global competitiveness rankings for knowledge and its sub-factors (education and training, scientific concentration and talent) in 2020 and 2021. The country ranked 62 out of 64 in the **knowledge**, and **education and training** sub-factors in 2021, each dipping 2 places from 60<sup>th</sup> position in 2020. **The scientific concentration** ranking remained constant at 53 out of 64 nations in 2020 and 2021, and **talent** ranked 58 out of 64 countries in 2021.

**Table 2: South Africa's knowledge and associated sub-factor rankings, 2020 - 2021**

Knowledge and associated sub-factors	Year		Change in position
	2020	2021	
Knowledge	60	62	▼ -2
Education and training	60	62	▼ -2
Scientific concentration	53	53	▬ 0
Talent	59	58	▲ 1

Notes:

**Note 1:** Education and training comprises the following indicators – employer training, total public expenditure, higher education, pupil-to-teacher ratio (tertiary education), graduates in sciences, and women with degrees.

**Note 2:** Scientific concentration consists of the following indicators – total expenditure of research and development (R & D), total R & D personnel per capita, female researchers, R & D productivity by publication, high-tech patent grants, scientific and technical employment, and robots in education and R & D.

**Note 3:** Talent comprises the following indicators – educational assessment PISA – Math, international experience, foreign highly-skilled personnel, management of cities, digital/technical skills, and net flow of international students.

Table 3 compares countries' global competitiveness rankings in **education and training** between 2020 and 2021. South Africa ranked 62 out of 64 countries for the education and training

sub-factor in 2021, plunging 2 positions from its 60<sup>th</sup> position in 2020. South Africa's ranking in 2021 was relatively close to countries such as Indonesia (64<sup>th</sup>), Turkey (63<sup>rd</sup>), Philippines (61<sup>st</sup>) and Italy (60<sup>th</sup>), but far below middle income countries like Malaysia and Russia, and below Botswana.

**Table 3: Countries' education and training rankings, 2020 - 2021**

Country	Year		Change in position
	2020	2021	
South Africa	60	62	▼ -2
Botswana	No data	48	Not computable
Brazil	61	58	▲ 3
China	40	35	▲ 5
India	51	43	▲ 8
Indonesia	63	64	▼ -1
Italy	58	60	▼ -2
Malaysia	8	9	▼ -1
Norway	10	11	▼ -1
Philippines	59	61	▼ -2
Russia	13	6	▲ 7
Turkey	62	63	▼ -1

Table 4 shows South Africa's rankings in **education and training** indicators for 2020 and 2021. South Africa ranked 1<sup>st</sup> and 2<sup>nd</sup> globally in 2020 and 2021, respectively, for the indicator ***total public expenditure on education as a percentage of GDP*** indicating the country's strong international competitiveness and commitment to investing in human capital by global standards. However, South Africa's 2021 rankings in other education and training indicators were predominantly poor, with **higher education achievement**, 60<sup>th</sup>, **graduates in sciences and women with degrees**, 55<sup>th</sup>, **employee training**, 52<sup>nd</sup>, and **pupil-to-teacher ratio (tertiary)**, 46<sup>th</sup>. These statistics reveal that South Africa's investment in education and training is not concomitant to its performance in education and training.

**Table 4: South Africa's education and training sub-factor indicators rankings, 2020 - 2021**

Indicators	Year		Change in position
	2020	2021	
Employee training	57	52	▲ 5
Total expenditure on education	1	2	▼ -1
Higher education achievement	60	60	▬ 0
Pupil-to-teacher ratio (tertiary education)	45	46	▼ -1
Graduates in Sciences	52	55	▼ -3
Women with degrees	54	55	▼ -1

Table 5 presents countries' global competitiveness rankings in scientific concentration between 2020 and 2021. Of 64 countries, South Africa's ranking remained constant at the 53<sup>rd</sup> position in both 2020 and 2021. South Africa's competitiveness ranking in 2021 was relatively close to that of Philippines, but significantly below other BRICS countries such as China and Russia.

**Table 5: Countries' scientific concentration rankings, 2020 - 2021**

Country	Year		Change in position
	2020	2021	
South Africa	53	53	0
Botswana	No data	63	Not computable
Brazil	27	21	6
China	2	1	1
India	29	47	-18
Indonesia	51	44	7
Italy	22	25	-3
Malaysia	26	32	-6
Norway	23	22	1
Philippines	56	56	0
Russia	24	24	0
Turkey	45	41	4

Table 6 shows countries' rankings in **talent** between 2020 and 2021. Of 64 countries, South Africa ranked 58 in 2021, showing an improvement by one place from the 59<sup>th</sup> position in 2020. South Africa's 2021 ranking was slightly higher than Brazil which ranked 62 and 63 in 2020 and 2021, but far below other countries such as Malaysia, India and China.

**Table 6: Countries' talent rankings, 2020 - 2021**

Country	Year		Change in position
	2020	2021	
South Africa	59	58	1
Botswana	No data	53	Not computable
Brazil	62	63	-1
China	13	12	1
India	41	38	3
Indonesia	43	48	-5
Italy	42	40	2
Malaysia	30	30	0
Norway	16	16	0
Philippines	55	55	0
Russia	47	44	3
Turkey	38	49	-11

## 6. CONCLUSION

South Africa's overall competitive performance remained poor in 2021, at 62 out of 64 countries. The country's global rankings show a poor outlook in economic performance, government efficiency, infrastructure, and business efficiency. The country's global competitiveness ranking was also poor in education and training, where it ranked 62 out of 64 countries in 2021.

The only education and training indicator in which South Africa performed very well was that on **total expenditure on education**. South Africa ranked 2<sup>nd</sup> out of 64 countries for its expenditure on education, but it ranked very poorly in all other education and training indicators, pointing to an imbalance between investment and achievement. The need to improve South Africa's global rankings, especially in education and training, is therefore quite evident. So is the need to improve how education and training resources are used in the country. Research<sup>7</sup> indicates that dropout rates are high in South Africa, while throughput rates are poor, suggesting low levels of efficiency in the South African education and training system and thus the need for appropriate policy interventions.

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<sup>7</sup> Department of Higher Education and Training (2020). 2000 to 2007 first time entering undergraduate cohort studies for public higher education institutions. Republic of South Africa.  
<https://www.dhet.gov.za/HEMIS/2000%20TO%202017%20FIRST%20TIME%20ENTERING%20UNDERGRADUATE%20COHORT%20STUDIES%20FOR%20PUBLIC%20HEIs.pdf>

## Appendix 1: Rankings of world competitiveness factors, and criteria of data used, 2021

Factors and elements	Rank	Hard statistics (ranked)	Survey data (ranked)	Background data (not ranked)	Total
<b>Economic performance</b>					
Domestic economy	60	9	1	16	26
International trade	42	12	0	13	25
International investment	46	10	1	4	15
Employment	64	8	0	2	10
Prices	5	5	0	1	6
		<b>44</b>	<b>2</b>	<b>36</b>	<b>82</b>
<b>Government efficiency</b>					
Public finance	60	4	3	3	10
Tax policy	28	6	1	4	11
Institutional framework	58	7	7	2	16
Business legislation	60	6	13	0	19
Societal framework	59	9	4	3	16
		<b>32</b>	<b>28</b>	<b>12</b>	<b>72</b>
<b>Business efficiency</b>					
Productivity and efficiency	56	3	4	3	10
Labour market	59	11	10	3	24
Finance	38	9	7	3	19
Management practices	52	4	10	0	14
Attitude and values	61	0	7	0	7
		<b>27</b>	<b>38</b>	<b>9</b>	<b>74</b>
<b>Infrastructure</b>					
Basic infrastructure	62	8	5	7	20
Technological infrastructure	61	11	7	0	18
Scientific infrastructure	47	15	3	4	22
Health and environment	62	14	5	9	28
Education and training	63	12	4	3	19
		<b>60</b>	<b>24</b>	<b>23</b>	<b>107</b>
<b>Total Criteria</b>		<b>163</b>	<b>92</b>	<b>80</b>	<b>335</b>

## Appendix 2: International organisations sources of hard data

- BMI Research,
- Educational Testing Service (ETS),
- Economist Intelligence Unit (EIU),
- Euromonitor International,
- Eurostat,
- Fitch,
- Food and Agriculture Organization (FAO),
- Global Entrepreneurship Monitor (GEM),
- Global Footprint Network (GFN),
- International Civil Aviation Organization (ICAO),
- International Energy Agency (IEA),
- International Labour Office (ILO),
- International Monetary Fund (IMF),
- International Union of Railways (IUR),
- Moody's,
- Organisation for Economic Co-operation and Development (OECD),
- PricewaterhouseCoopers,
- Reporters Without Borders,
- Standard and Poor's,
- The World Justice Project,
- Thomson Reuters,
- Times Higher Education: World University Ranking,
- United Nations Conference on Trade and Development (UNCTAD),
- United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics,
- United Nations Industrial Development Organization (UNIDO),
- World Bank (WB), World Health Organization (WHO),
- World Intellectual Property (WIP),
- World Tourism Organization (UNWTO), and
- World Trade Organization (WTO).