



GKI RANK 41 /141

GKI SCORE 54.8

WORLD AVERAGE 47.8

COUNTRY PERFORMANCE SUMMARY

Saudi Arabia is a strong performer in terms of its knowledge infrastructure. It ranks 41st out of 141 countries in the Global Knowledge Index 2024 and 40th out of the 59 countries with very high human development.

SAUDI ARABIA

KEY INDICATORS

GDP (US\$ billions): 1,831.379

Population: 33,264,292

HDI: 0.875

AREAS OF STRENGTH

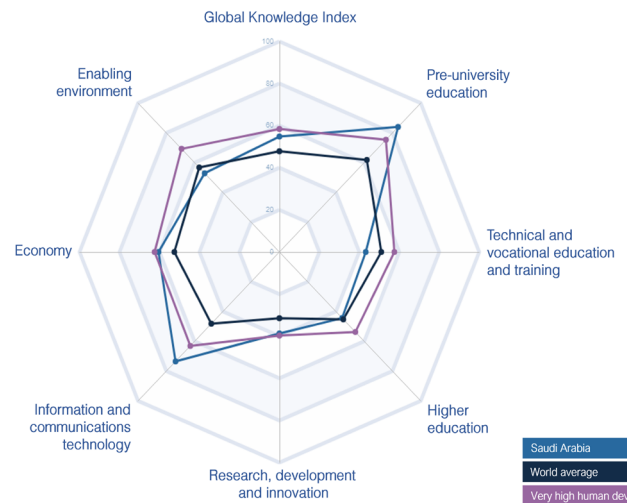
- + Firms with products and services new to the market (%)
- + Households with Internet access at home (%)
- + State of cluster development
- + Growth of innovative companies
- + Mobile broadband Internet traffic per subscription

AREAS OF IMPROVEMENT

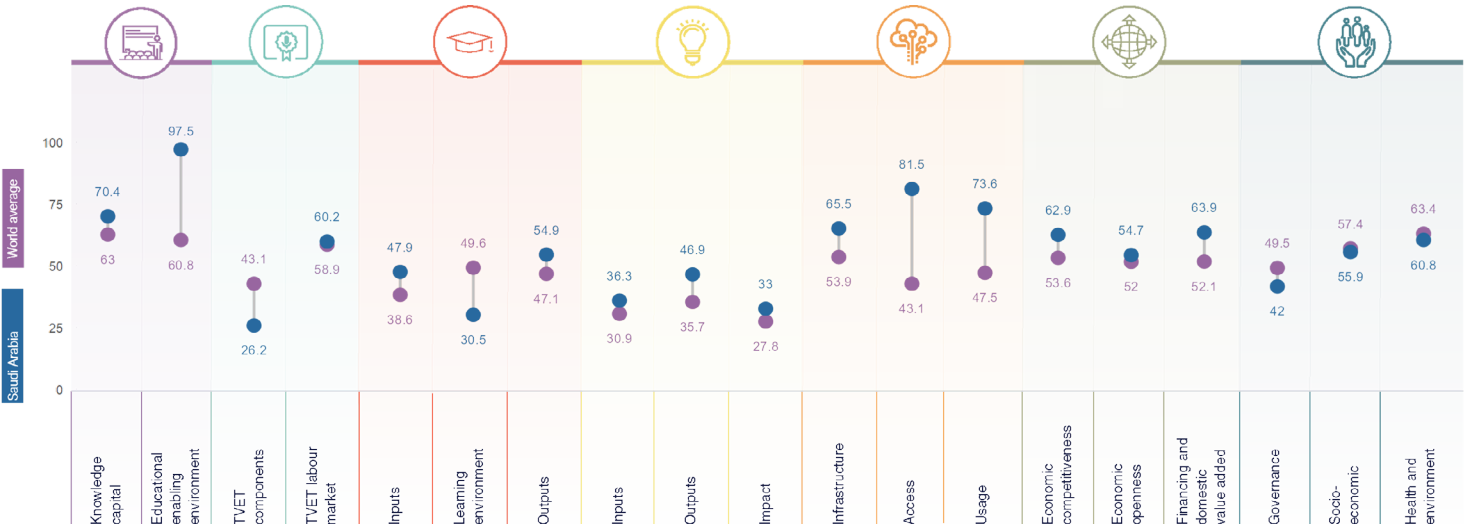
- Firms offering formal training (%)
- Share of students enrolled in post-secondary vocational programmes
- Enrolment in vocational education, gender parity
- Renewable energy consumption (%)
- Ratio of medium-skill TVET occupations earnings to average wage

SECTORAL INDICES

| | RANK | VALUE |
|---|------|-------|
| PRE-UNIVERSITY EDUCATION | 4 | 84 |
| TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING | 112 | 43.2 |
| HIGHER EDUCATION | 77 | 44.4 |
| RESEARCH, DEVELOPMENT AND INNOVATION | 33 | 38.7 |
| INFORMATION AND COMMUNICATIONS TECHNOLOGY | 7 | 73.5 |
| ECONOMY | 38 | 60.5 |
| ENABLING ENVIRONMENT | 77 | 52.9 |



GKI PILLARS





SAUDI ARABIA

| | Rank Value | |
|---|------------|-------------|
| PRE-UNIVERSITY EDUCATION | 4 | 84 |
| Knowledge capital | 66 | 70.4 |
| Enrolment | 17 | 97.6 |
| Net enrolment rate in primary education | 59 | 95.2 |
| Net enrolment rate in lower secondary education | 26 | 99 |
| Net enrolment rate in upper secondary education | 8 | 98.5 |
| Completion | 42 | 76.6 |
| Years of compulsory education in primary and secondary | 68 | 69.2 |
| Completion rate in upper secondary education | n/a | n/a |
| Gross intake ratio to the last grade of lower secondary education | 4 | 84.1 |
| Outcomes | 88 | 37.1 |
| Assessment of 15-year-old students in math, science and reading | 66 | 20.6 |
| Learning-adjusted years of schooling | 77 | 53.6 |
| Educational enabling environment | 1 | 97.5 |
| Expenditure | n/a | n/a |
| Government expenditure on primary education (% GDP) | n/a | n/a |
| Government expenditure on secondary education (% GDP) | n/a | n/a |
| Government funding per primary student (% GDP per capita) | n/a | n/a |
| Government funding per secondary student (% GDP per capita) | n/a | n/a |
| Resources | 28 | 97.9 |
| Pupil-trained teacher ratio in primary education | 13 | 96.5 |
| Pupil-trained teacher ratio in secondary education | 20 | 95 |
| Schools with access to computers in primary education (%) | 1 | 100 |
| Schools with access to computers in secondary education (%) | 1 | 100 |
| Early learning | 1 | 97.1 |
| Gross enrolment ratio in early childhood education | n/a | n/a |
| Proportion of children who are developmentally on track | n/a | n/a |
| Proportion of children with stimulating home learning environments | n/a | n/a |
| Pupil-trained teacher ratio in pre-primary education | 9 | 97.1 |
| Equity and inclusiveness | n/a | n/a |
| Completion rate in upper secondary education, gender parity | n/a | n/a |
| Completion rate in upper secondary education, wealth parity | n/a | n/a |
| Completion rate in upper secondary education, location parity | n/a | n/a |
| TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING | 112 | 43.2 |
| TVET components | 137 | 26.2 |
| Continuous training and skilling | 94 | 37.6 |
| Firms offering formal training (%) | 125 | 0 |
| Labour force participation rate with short-cycle tertiary education | 16 | 86.9 |
| Participation rate in formal and non-formal education and training | 73 | 26 |
| TVET structure | 137 | 0.3 |
| Government expenditure on vocational education (%) | n/a | n/a |
| Share of students enrolled in secondary vocational programmes | 123 | 0.5 |
| Share of students enrolled in post-secondary vocational programmes | 83 | 0 |
| TVET quality and qualifications | 81 | 40.7 |
| Extent of staff training | 28 | 67.3 |
| Quality of vocational training | 24 | 66.2 |
| Ratio of high-skill TVET occupations earnings to average wage | 49 | 28.6 |
| Ratio of medium-skill TVET occupations earnings to average wage | 121 | 0.9 |
| TVET labour market | 74 | 60.2 |
| Efficiency of the labour market | 51 | 71.7 |
| Firms constrained with inadequately educated workforce (%) | 5 | 96.8 |
| Employment educational mismatch (%) | n/a | n/a |
| Proportion of skilled production workers | 96 | 46.6 |
| Unemployment rate with vocational education | n/a | n/a |
| Post-TVET employment | 53 | 48.5 |
| Share of TVET occupations | 30 | 69.1 |
| Manufacturing employment (%) | 88 | 28 |
| Equity and inclusiveness | 100 | 60.4 |
| Enrolment in vocational education, gender parity | 117 | 22.5 |
| Vulnerable employment rate | 3 | 98.2 |

| | Rank Value | |
|--|------------|-------------|
| HIGHER EDUCATION | 77 | 44.4 |
| Inputs | 35 | 47.9 |
| Expenditure | n/a | n/a |
| Government expenditure per tertiary student | n/a | n/a |
| Teaching staff compensation (% tertiary expenditure) | n/a | n/a |
| Enrolment | 55 | 25.8 |
| Enrolment in bachelor's or equivalent level (%) | 16 | 37.8 |
| Enrolment in master's, doctoral or equivalent (%) | 60 | 13.7 |
| Resources | 46 | 70 |
| Pupil-teacher ratio in tertiary education | 76 | 70 |
| Researchers in higher education (%) | n/a | n/a |
| Learning environment | 118 | 30.5 |
| Diversity and academic freedom | 118 | 30.5 |
| Teachers in tertiary education, gender parity | 52 | 74.9 |
| Inbound mobility rate | 61 | 10.2 |
| Academic freedom | 136 | 6.4 |
| Equity and inclusiveness | n/a | n/a |
| Gross attendance ratio for tertiary education, gender parity | n/a | n/a |
| Gross attendance ratio for tertiary education, wealth parity | n/a | n/a |
| Gross attendance ratio for tertiary education, location parity | n/a | n/a |
| Outputs | 38 | 54.9 |
| Attainment | 55 | 29.3 |
| Educational attainment rate, bachelor's or equivalent | 28 | 50.5 |
| Educational attainment rate, master's or equivalent | 64 | 12.2 |
| Educational attainment rate, doctoral or equivalent | 39 | 25.3 |
| Employment | 75 | 79.4 |
| Labour force participation rate with advanced education | 61 | 78 |
| Unemployment rate with advanced education | 82 | 80.9 |
| Impact | 13 | 56 |
| University-industry collaboration in R&D | 35 | 56 |
| Citable documents per R&D personnel in higher education | n/a | n/a |
| RESEARCH, DEVELOPMENT AND INNOVATION | 33 | 38.7 |
| Inputs | 40 | 36.3 |
| Inputs of R&D institutions | 61 | 31.3 |
| GERD (% GDP) | 61 | 8.2 |
| GERD per researcher | 20 | 39.6 |
| Researchers per thousand labour force | 61 | 9.2 |
| Tertiary graduates from STEM programmes (%) | 29 | 68.3 |
| Inputs of RDI in business enterprises | 111 | 11 |
| GERD performed by business enterprises (%) | n/a | n/a |
| GERD financed by business enterprises (%) | n/a | n/a |
| Researchers in business enterprises (%) | n/a | n/a |
| Firms that spend on R&D (%) | 94 | 11 |
| Inputs of societal innovation | 7 | 71.8 |
| High-skilled employment (%) | n/a | n/a |
| Intellectual property payments (% total trade) | n/a | n/a |
| State of cluster development | 2 | 71.8 |
| Outputs | 23 | 46.9 |
| Outputs of R&D institutions | 3 | 72.8 |
| Average documents per researcher | 6 | 69.6 |
| Citations per document | 3 | 88.5 |
| Resident patent applications (per 100 billion GDP) | 34 | 60.2 |
| Outputs of RDI in business enterprises | 100 | 20.5 |
| Intellectual property receipts (% total trade) | n/a | n/a |
| Industrial design applications (per 100 billion GDP) | 80 | 49.6 |
| PCT applications (per 100 billion GDP) | 50 | 5.2 |
| Firms producing new products and services (%) | 110 | 6.7 |
| Outputs of societal innovation | 118 | 21.5 |
| Trademark applications (per 100 billion GDP) | 106 | 6.8 |
| Cultural goods exports (% exports) | 114 | 4.3 |
| Printing and publishing output (% manufactured output) | 60 | 14.8 |
| Impact | 45 | 33 |
| Quality | 51 | 28.6 |
| Research institutions prominence | 26 | 28.3 |
| Growth of innovative companies | 2 | 71.9 |
| ISO 9001 quality certificates (per billion GDP) | 81 | 6.5 |
| ISO 14001 environmental certificates (per billion GDP) | 65 | 7.9 |
| Linkages | 58 | 18.5 |
| GERD financed from abroad (%) | n/a | n/a |
| Joint ventures per strategic alliance deals (per billion GDP) | 50 | 8.9 |
| Computer software spending (% GDP) | 37 | 28.1 |
| Business development | 21 | 51.8 |
| New business density per thousand population | 97 | 3.6 |
| Firms with products and services new to the market (%) | 1 | 100 |



SAUDI ARABIA

| | Rank | Value |
|---|-----------|-------------|
| INFORMATION AND COMMUNICATIONS TECHNOLOGY | 7 | 73.5 |
| Infrastructure | 42 | 65.5 |
| Coverage | 79 | 55.6 |
| 3G/4G mobile network coverage (% population) | 1 | 100 |
| Secure Internet servers per 1 million population | 93 | 42 |
| Investment in telecommunication services (% GDP) | 64 | 24.7 |
| Quality | 19 | 54 |
| Mobile upload and download speeds | 9 | 46 |
| Fixed-broadband upload and download speeds | 53 | 27.8 |
| Fixed-broadband subscriptions by speed per hundred people | 13 | 88.2 |
| Affordability | 57 | 86.9 |
| Fixed broadband basket (% GNI per capita) | 77 | 64.7 |
| Mobile broadband basket (% GNI per capita) | 50 | 96 |
| Internet and telephony competition | 1 | 100 |
| Access | 1 | 81.5 |
| Subscriptions | 4 | 85 |
| Active mobile-broadband subscriptions per hundred inhabitants | 6 | 83.7 |
| International Internet bandwidth per user | 11 | 71.2 |
| Households with Internet access at home (%) | 1 | 100 |
| Skills and employment | 1 | 78 |
| Individuals with standard ICT skills (%) | 2 | 98.5 |
| Tertiary graduates from ICT programmes (%) | 5 | 57.6 |
| ICT employment (%) | n/a | n/a |
| Usage | 9 | 73.6 |
| Services | 1 | 93.7 |
| Government online services | 4 | 99 |
| Fixed broadband Internet traffic per subscription | 3 | 79.8 |
| Mobile broadband Internet traffic per subscription | 2 | 95.8 |
| Internet users (%) | 1 | 100 |
| Outcomes | 47 | 53.5 |
| ICT PCT patent applications (per 100 billion GDP) | 68 | 41.1 |
| E-participation | 6 | 95.9 |
| Internet activities by individuals (%) | 48 | 52.6 |
| Trade in digitally deliverable services (% total trade) | 91 | 24.4 |
| ECONOMY | 38 | 60.5 |
| Economic competitiveness | 35 | 62.9 |
| Infrastructure investment | 30 | 61 |
| Gross fixed capital formation (% GDP) | 20 | 49.4 |
| Logistics performance | 35 | 60 |
| Transport productive capacity | 36 | 54.7 |
| Building quality control | 46 | 80 |
| Business agility | 46 | 64.8 |
| Ease of starting a business | 31 | 93.1 |
| Insolvency recovery rate | n/a | n/a |
| Entrepreneurial employee activity rate | 86 | 1.4 |
| Extent of corporate transparency | 1 | 100 |
| Economic openness | 63 | 54.7 |
| Trade and diversification | 124 | 39.6 |
| Trade (% GDP) | 101 | 12.6 |
| High-technology trade (% total trade) | 88 | 13.8 |
| Product concentration | 130 | 40.9 |
| Market concentration | 61 | 91.2 |
| Financial openness | 41 | 69.8 |
| Chinn-Ito financial openness | 57 | 70.1 |
| Foreign direct investment, net inflows (% GDP) | 85 | 39.3 |
| Debt dynamics | 1 | 100 |
| Financing and domestic value added | 17 | 63.9 |
| Financing and taxes | 28 | 68.2 |
| Domestic credit to private sector (% GDP) | 62 | 21 |
| MSME financing gap (% GDP) | n/a | n/a |
| Tax and contribution rate (% profit) | 8 | 89.9 |
| Bank non-performing loans (%) | 21 | 93.7 |
| Domestic value added | 30 | 59.6 |
| Medium- and high-tech activities value added | 49 | 31.2 |
| Industry and services value added (% GDP) | 14 | 83.1 |
| Labour underutilization rate | 56 | 74.6 |
| Output per worker | 13 | 49.3 |

| | Rank | Value |
|--|------------|-------------|
| ENABLING ENVIRONMENT | 77 | 52.9 |
| Governance | 75 | 42 |
| Political environment | 122 | 19.9 |
| Peace and stability | 92 | 32.1 |
| Voice and accountability | 137 | 7.7 |
| Quality of institutions | 49 | 64.2 |
| Rule of law | 55 | 58 |
| Control of corruption | 48 | 63.7 |
| Government effectiveness | 41 | 70.8 |
| Socio-economic | 77 | 55.9 |
| Gender equity | 115 | 55.9 |
| Female-to-male ratio in parliament | 102 | 24.8 |
| Female-to-male labour force participation | 130 | 43 |
| Female-to-male ratio in Internet usage | 1 | 100 |
| Social inclusion | 59 | 74.7 |
| Social protection coverage (% population) | 58 | 63.1 |
| Adult literacy rate | 31 | 97.2 |
| Youth not in employment, education or training (%) | 77 | 63.7 |
| Standard of living | 78 | 37 |
| Poverty headcount ratio (% population) | n/a | n/a |
| GDP per capita | 28 | 37 |
| Health and environment | 98 | 60.8 |
| Health | 46 | 80.9 |
| Universal health coverage | 64 | 74.4 |
| Healthy life expectancy (years) | 42 | 72.4 |
| Under-five mortality rate | 47 | 96.1 |
| Environmental performance | 125 | 40.7 |
| Renewable energy consumption (%) | 138 | 0.1 |
| Ecological footprint per capita | 116 | 55.9 |
| Natural hazard exposure | 55 | 66 |

* All values are normalized to a scale from 0 (worst) to 100 (best).