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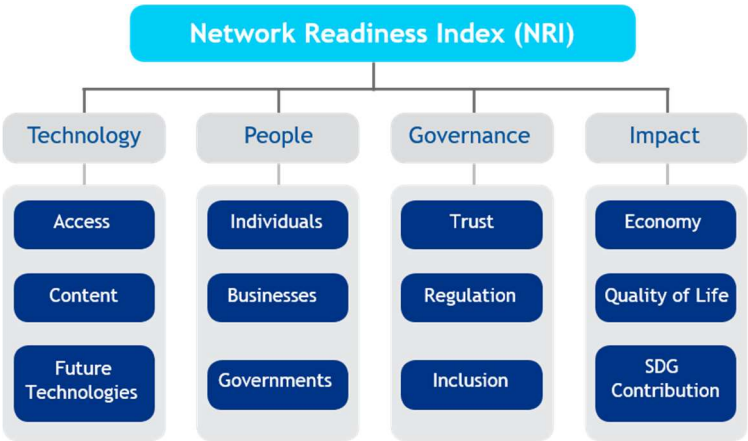
Network Readiness Index 2019 Tanzania

The Network Readiness Index (NRI) is one of the leading global indices on the application and impact of information and communication technology (ICT) in economies around the world. In its latest version of 2019 the NRI Report maps the network-based readiness landscape of 121 economies based on their performances in four different pillars: Technology, People, Governance, and Impact. Each of these pillars is itself comprised of three sub-pillars (see Figure 1) that have been populated by a total of 62 variables.

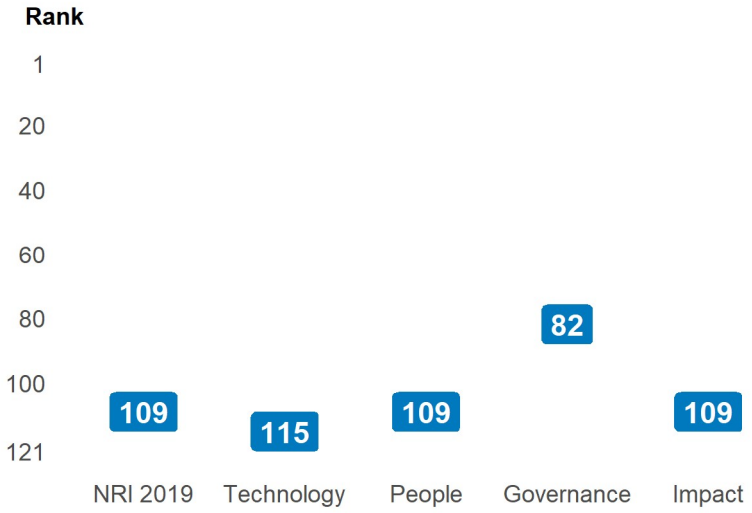
Figure 1: The NRI 2019 model



Global NRI position of Tanzania

Tanzania ranks 109th out of the 121 economies included in the NRI 2019 (Figure 2). Its main strength relates to Governance. The greatest scope for improvement, meanwhile, concerns Technology.

Figure 2: Tanzania global ranking, overall and by pillar



Performance at sub-pillar level

When it comes to sub-pillars, the strongest showings of Tanzania relate to Trust, Future Technologies and Inclusion, among others (Table 1). More could be done, though, to improve the economy's performances in the Content, Businesses and Access sub-pillars.

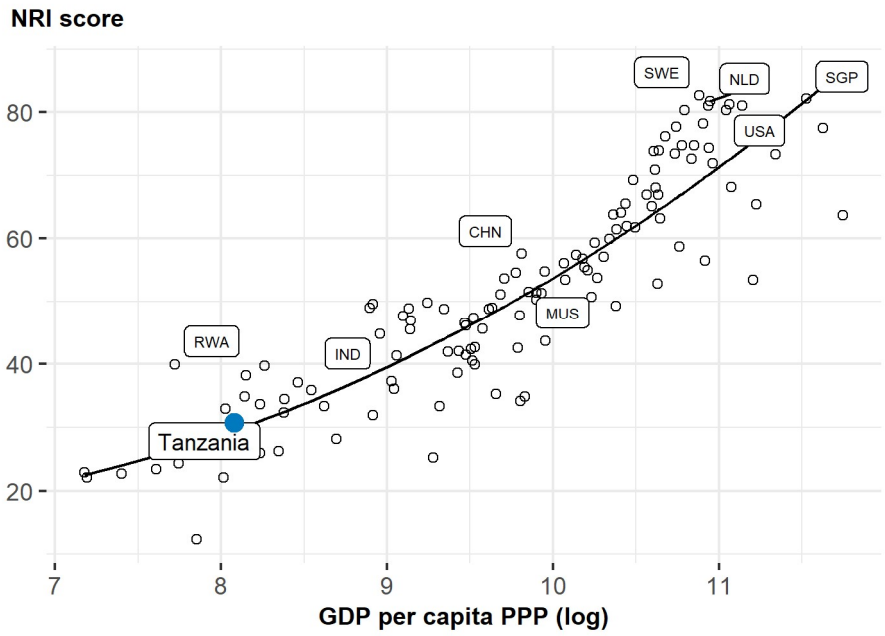
Table 1: Tanzania rankings by sub-pillar

Sub-pillar	Rank	Sub-pillar	Rank
Trust	66	Economy	104
Future Technologies	75	SDG Contribution	111
Inclusion	75	Individuals	113
Governments	76	Content	115
Regulation	102	Businesses	115
Quality of Life	103	Access	118

NRI score and income

Figure 3 shows the position of Tanzania in terms of both NRI score and GDP per capita (PPP). The trend line shows the expected NRI score given an economy's income level. As can be seen, Tanzania is slightly above the trend line, which suggests that its network readiness is more or less in line with what would be expected given its income level.

Figure 3: NRI score and GDP per capita PPP (log)



Note: SWE = Sweden (rank: 1), SGP = Singapore (2), NLD = Netherlands (3), CHN = China (41), IND = India (79). USA is ranked 8th. Tanzania belongs to the group of low-income countries, where the best performer is Rwanda (RWA). The top performer of its region—Africa—is Mauritius (MUS).

Performance against its income group and region

Low-income countries

Tanzania is ranked 4th in the group of low-income countries (Figure 4, left panel). In terms of pillar performance, it has a score higher than the income group average in three of the four pillars: Score, People, Governance and Impact. At the sub-pillar level, it outperforms low-income countries in eight of the twelve sub-pillars: Future Technology, Individuals, Governments, Trust, Regulation, Inclusion, Economy and SDG Contribution.

Africa

Tanzania is ranked 9th within Africa (Figure 4, right panel). It has a score above the regional average in one of the four pillars: Governance. With regard to sub-pillars, it outperforms the average in Africa in four of the twelve sub-pillars: Governments, Trust, Inclusion and Quality of Life.

Figure 4: Performance of Tanzania against its income group and region, overall and by pillar

Table 2: Tanzania scores vs. averages of its income group and region, overall and by pillar

Dimension	Tanzania	Low-income countries	Africa
NRI	30.73	26.91	31.07
Technology	18.49	20.09	26.03
People	23.12	18.24	23.76
Governance	53.06	41.33	45.32
Impact	28.26	27.97	29.15

Strongest and weakest indicators

The indicators where Tanzania performs particularly well include Online trust and safety, R&D expenditure by governments and higher education, and Government procurement of advanced technology products (Table 3). By contrast, the economy's weakest indicators include International Internet bandwidth, Active mobile-broadband subscriptions, and Happiness.

Table 3: Top-ranked and bottom-ranked indicators of Tanzania

Strongest indicators	Rank	Weakest indicators	Rank
Online trust and safety	12	Internet access	112
R&D expenditure by governments and higher education	33	Use of virtual social networks	112
Government procurement of advanced technology products	46	Mobile apps development	113
Reading proficiency in schools	52	Tertiary enrolment	114
Maths proficiency in schools	53	Professionals	116
Rural gap in use of digital payments	55	Access to basic services	116
Company investment in emerging technology	58	4G mobile network coverage	117
Social safety net protection	60	Happiness	119
ICT regulatory environment	60	Active mobile-broadband subscriptions	120
Cybersecurity	62	International Internet bandwidth	121

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NRI 2019 At-A-Glance: Tanzania

Network Readiness Index — Rank: 109 (out of 121) — Score: 30.73

Pillar/sub-pillar	Rank	Score
A. Technology pillar	115	18.49
1st sub-pillar: Access	118	16.77
2nd sub-pillar: Content	115	10.90
3rd sub-pillar: Future Technologies	75	27.80
B. People pillar	109	23.12
1st sub-pillar: Individuals	113	18.38
2nd sub-pillar: Businesses	115	10.17
3rd sub-pillar: Governments	76	40.80
C. Governance pillar	82	53.06
1st sub-pillar: Trust	66	54.85
2nd sub-pillar: Regulation	102	46.51
3rd sub-pillar: Inclusion	75	57.80
D. Impact pillar	109	28.26
1st sub-pillar: Economy	104	8.06
2nd sub-pillar: Quality of Life	103	41.68
3rd sub-pillar: SDG Contribution	111	35.04

The Network Readiness Index in detail

Indicator	Rank	Score
A. Technology pillar		
1st sub-pillar: Access		
1.1.1 Mobile tariffs	104	36.07
1.1.2 Handset prices	102	26.12
1.1.3 Internet access	112	8.67
1.1.4 4G mobile network coverage	117	13.00
1.1.5 Fixed-broadband subscriptions	NA	NA
1.1.6 International Internet bandwidth	121	0.00
1.1.7 Internet access in schools	NA	NA
2nd sub-pillar: Content		
1.2.1 Digital participation and content creation	*	*
1.2.2 Mobile apps development	113	23.50
1.2.3 Intellectual property receipts	90	0.01
3rd sub-pillar: Future Technologies		
1.3.1 Availability of latest technologies	108	28.58
1.3.2 Company investment in emerging technology	58	36.70
1.3.3 Government procurement of advanced technology products	46	45.93
1.3.4 ICT PCT patent applications	NA	NA
1.3.5 Computer software spending	97	0.00
1.3.6 Robot density	NA	NA
B. People pillar		
1st sub-pillar: Individuals		
2.1.1 Internet users	107	16.92
2.1.2 Active mobile-broadband subscriptions	120	1.27
2.1.3 Use of virtual social networks	112	5.61
2.1.4 Tertiary enrolment	114	2.35
2.1.5 Adult literacy rate	79	65.76
2.1.6 ICT skills	NA	NA
2nd sub-pillar: Businesses		
2.2.1 Firms with website	104	5.19
2.2.2 Internet shopping	83	6.82
2.2.3 Professionals	116	0.00
2.2.4 Technicians and associate professionals	106	8.17
2.2.5 Extent of staff training	87	30.65
2.2.6 R&D expenditure by businesses	NA	NA
3rd sub-pillar: Governments		
2.3.1 Government online services	93	51.54
2.3.2 Publication and use of open data	65	21.73
2.3.3 ICT use and government efficiency	64	42.19
2.3.4 R&D expenditure by governments and higher education	33	47.75

Indicator	Rank	Score
C. Governance pillar		
1st sub-pillar: Trust		
3.1.1 Rule of law	95	40.68
3.1.2 Software piracy rate	NA	NA
3.1.3 Secure Internet servers	110	28.07
3.1.4 Cybersecurity	62	68.31
3.1.5 Online trust and safety	12	82.34
2nd sub-pillar: Regulation		
3.2.1 Regulatory quality	102	37.92
3.2.2 Ease of doing business	109	42.86
3.2.3 Legal framework's adaptability to digital business models	63	42.91
3.2.4 E-commerce legislation	110	25.00
3.2.5 Social safety net protection	60	44.69
3.2.6 ICT regulatory environment	60	85.72
3rd sub-pillar: Inclusion		
3.3.1 E-Participation	86	56.69
3.3.2 Socioeconomic gap in use of digital payments	64	67.56
3.3.3 Availability of local online content	86	37.27
3.3.4 Gender gap in internet use	NA	NA
3.3.5 Rural gap in use of digital payments	55	69.69
D. Impact pillar		
1st sub-pillar: Economy		
4.1.1 Medium and high-tech industry	105	8.44
4.1.2 High-tech exports	65	13.05
4.1.3 PCT patent applications	NA	NA
4.1.4 Labour productivity per employee	101	2.68
2nd sub-pillar: Quality of Life		
4.2.1 Happiness	119	8.07
4.2.2 Freedom to make life choices	71	64.50
4.2.3 Income inequality	63	66.32
4.2.4 Healthy life expectancy at birth	107	27.84
3rd sub-pillar: SDG Contribution		
4.3.1 Access to basic services	116	25.20
4.3.2 Pollution	84	77.59
4.3.3 Road safety	111	17.19
4.3.4 Reading proficiency in schools	52	55.99
4.3.5 Maths proficiency in schools	53	34.28
4.3.6 Use of clean fuels and technology	111	0.00

* Confidential data

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