

Connectivity Scorecard 2011

Malaysia



	Score	Weight
Consumer Infrastructure	0.74 (0.88)*	0.09
Consumer Usage and Skills	0.67 (0.70)*	0.09
Business Infrastructure	0.64 (0.64)*	0.59
Business Usage and Skills	0.71 (0.71)*	0.18
Public sector Infrastructure	0.53 (0.83)*	0.04
Public sector Usage and Skills	0.62 (0.68)*	0.01

*The score of the leading performer for this component

Table 1: Component Scores & Weights 2011

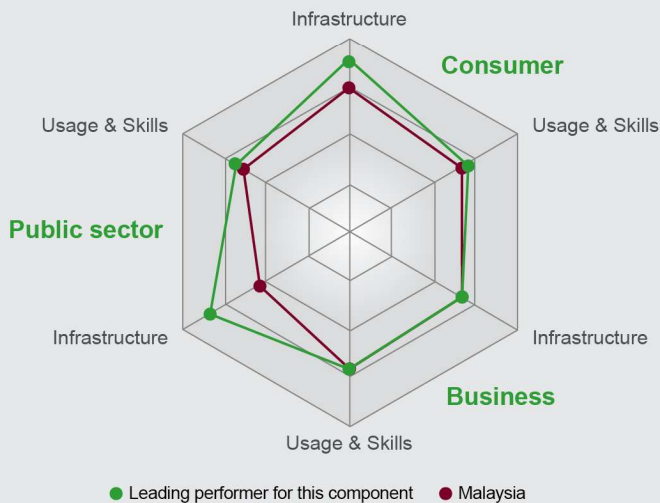


Fig 1: Component Scores 2011

Overview

Malaysia scores 6.61 and retains 1st place among the resource and efficiency-driven¹ economies on the Connectivity Scorecard 2011 index.

Malaysia has been a consistent performer in the Scorecard, and has maintained its position at the top of the rankings for the last four years. However, unlike previous years, due to the addition of some new metrics this year, Malaysia's lead over other countries has reduced substantially. On the other hand, these new metrics have also played to Malaysia's advantage in some areas.

Strengths

The newly added metrics, that include measuring ICT exports and imports, have greatly benefitted Malaysia — it is not just the top performer (when measured in per capita dollar terms) on these measures, but is so, by a long margin. The effect of adding these metrics however, weakens the scores of several other nations.

On the consumer infrastructure components, Malaysia performs respectably well on most metrics and is one of the leaders in internet penetration (internet subscribers per 100 households) and a reasonably good performer on broadband penetration. In terms of consumer usage, the country has a high rate of adult literacy and is also a leader in terms of internet users as a share of the population. On the newly introduced measure of messaging and email use among consumers, Malaysia performs rather well, though it is not quite a front-runner.

On the business components, not only is Malaysia a front-runner on ICT exports, but is also a leader in personal computer penetration. The country also performs strongly in terms of spending on IT hardware and software by businesses. This strength is maintained

¹ As defined by The World Economic Forum www.weforum.org

in several aspects of business usage: for example, spending in telecom and corporate data services.

On the public sector components of the Scorecard, Malaysia shows some elements of strength in the area of government spending on hardware and software, and it performs well on the two components of the U.N. e-government ranking included in the Scorecard this year—the availability of and participation in online services.

Weaknesses

There are, however, some areas in which Malaysia does not perform quite as well. For instance, it only scores moderately in mobile data services usage by enterprises, international internet bandwidth, and even secondary school enrolment, where it has clear room for improvement. Surprisingly, Malaysia also does not perform well in terms of estimated spending on ICT by the healthcare and educational sectors.

Conclusions

Malaysia remains the top performing “resource and efficiency” economy in this year’s Scorecard, and remains a very consistent performer across all components. However, Malaysia arguably gets a slice of luck in terms of the data that the report included on ICT exports and imports. These new metrics were actually designed to overcome data constraints that did not provide a sufficient picture of ICT spending, investment and usage in several resource and efficiency economies. Additionally, there are several new measures, such as measures of mobile data usage and penetration, where Malaysia’s supremacy is not so clear cut. In general, however, it can be concluded that Malaysia is almost certainly one of the top few “emerging” nations in the usage and deployment of ICT. Even taking into account data constraints that introduce a certain amount of variability into the resource and efficiency scorecard, Malaysia would remain one of the top few performers regardless of the precise data used to measure performance. That said, it should be remembered that the benchmarking of Malaysia is done against low and middle-income countries, not against richer countries that would still far outstrip Malaysia in terms of key variables such as broadband penetration, ICT spending, etc. Therefore, in absolute terms, Malaysia has lots of scope to improve.

2011 vs. 2010

Malaysia retains the 1st position once again in 2011, although its score slips from 7.14 to 6.61. The difference

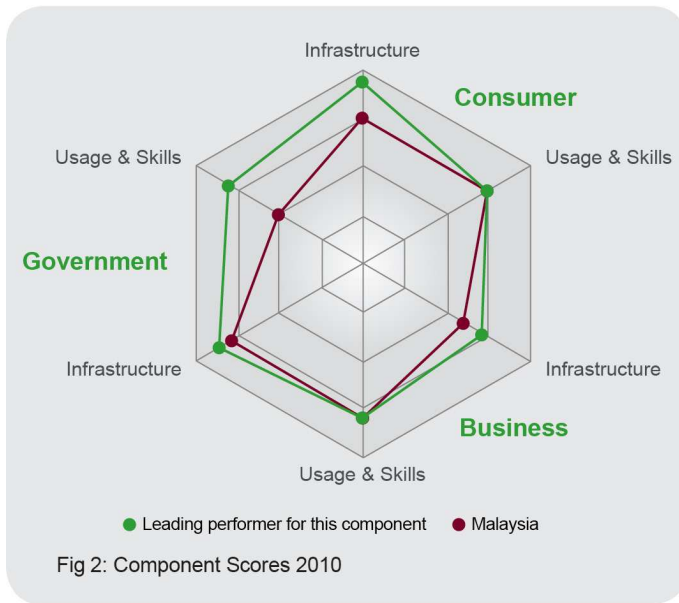
Rank [2010]	Country	Connectivity Score
1 [1]	Malaysia	6.61
2 [3]	Chile	6.21
3 [5]	Russia	5.68
4 [7]	Turkey	5.51
5 [4]	Argentina	5.46
6 [6]	Brazil	5.14
7 [8]	Mexico	4.87
8 [10]	Ukraine	4.81
9 [2]	South Africa	4.68
10 [9]	Colombia	4.06
11 [12]	Thailand	3.68
12 [13]	Tunisia	2.79
13 [15]	Vietnam	2.73
14 [17]	China	2.72
15 [14]	Iran	2.41
16 [19]	Philippines	2.15
17 [n/a]	Syria	2.11
18 [20]	Indonesia	2.01
19 [16]	Sri Lanka	2.01
20 [18]	Egypt	1.89
21 [21]	India	1.25
22 [25]	Pakistan	1.14
23 [23]	Nigeria	1.09
24 [22]	Kenya	0.95
25 [24]	Bangladesh	0.90

*last year’s rank in parenthesis

Table 2: Connectivity Scorecard 2011 Results – Resource & Efficiency-driven Economies

between scores and rankings this year² as compared to the previous year is explained by two factors: first, there is a change in the weighting system, and second, there have been extensive changes to the data indicators used. With respect to the resource and efficiency economies, for the first time ever, the report used specific data on the relative contributions of ICT investment (i.e., “ICT capital deepening”) and human capital (i.e., “labour composition”) to GDP growth. These new weightings place substantially more weight on the “infrastructure” as opposed to the “usage and skills” components for the business and public sector parts of the Scorecard. Had the report used the same weights as in 2010, Malaysia would have still finished first in the Scorecard, with a score of 6.84, as the previous weighting would have played to Malaysia’s relatively greater strength in business usage and skills.

² For more information download the Connectivity Scorecard 2011 Report from www.connectivityscorecard.org



Owing to data constraints relating to other indicators in the business infrastructure, usage and skills components, the report included data on ICT exports of goods (under infrastructure), and ICT imports of goods and exports of services (under usage). The justification for these seemingly odd choices is as follows: high levels of ICT exports are likely to be quite correlated with the development of a reasonably strong ICT ecosystem. Similar to the car industry, ICT manufacturing in one area is likely to spawn spill-over effects into ICT in other manufacturing and ICT investment in complementary areas. For instance, an initial advantage in computer assembly might lead to the location of mobile handset assembly in the country. This in turn will likely have positive spill-over effects into the wider economy. However, not all countries are ICT exporters or need to have ICT or export-led growth strategies. In this case, high levels of ICT imports might suggest a high level of domestic demand for ICT and thus be correlated with high levels of usage.³ High levels of ICT service exports are very likely to correlate with the presence of a critical mass of ICT user skills in the economy, which in turn could enable countries to support strong ICT sectors despite large sections of the population lacking ICT skills. Malaysia greatly benefits from the inclusion of ICT export and import data in the 2011 Connectivity Scorecard. It could be legitimately argued that the high level of imports in

³ In fact, a good argument could be made that the "ICT imports" indicator should be stuck under the "business infrastructure" category since they could also be correlated with business investment. This does not, however, make much of a difference to the overall scores.

Malaysia's case essentially reflects the import of components that are then assembled together into final products in Malaysia, and thus is less likely to reflect usage of ICT in Malaysia. Even without this indicator, however, Malaysia would still finish first.

The overall effect of using this trade data in the Scorecard was increase in Malaysia's lead over other countries. This also had the effect of reducing average scores on the business components of the Scorecard due to the skewed nature of the distribution of relative scores on the measures of ICT trade used. For instance, Malaysia has a sizeable lead over other countries on these metrics, and as a consequence, the other countries tend to get low relative scores on this metric, which pulls down their overall business performance).

The Connectivity Scorecard is based on comparative scores between countries, and, therefore, each country's performance is measured in relation to the best performing nation in each component at a given point of time. As with other indices of relative rankings, it is difficult to interpret the Connectivity Scorecard in terms of absolute "improvements" or "deteriorations" and to make comparisons of scores over time.

About Connectivity Scorecard

The Connectivity Scorecard is a global ICT index which, unlike other available research, is the first of its kind to rank countries in terms of "useful connectivity". That is, not only on the deployment of ICT infrastructure but also to measure the extent to which consumers, businesses and the public sector "make use" of connectivity technologies to enhance social and economic prosperity. This "useful connectivity" is defined as the bundle of infrastructure, complementary skills, software and informed usage that makes ICT the key driver of productivity and economic growth.

Commissioned by Nokia Siemens Networks, the study was created by Professor Leonard Waverman, Dean, Haskayne School of Business, University of Calgary, and Fellow, London Business School. The study was conducted by the consulting firms Berkeley Research Group and Communicea.

For more information on the Connectivity Scorecard, visit www.connectivityscorecard.org

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