THE UNCTAD B2C E-COMMERCE INDEX 2020
Spotlight on Latin America and the Caribbean

The UNCTAD B2C E-commerce Index 2020
Spotlight on Latin America and the Caribbean

Executive summary

In the 2020 edition of the UNCTAD Business-to-Consumer (B2C) E-commerce Index, Switzerland replaced the Netherlands as the country with the highest readiness to engage in and benefit from e-commerce. European economies dominate the top 10 list, which also features Singapore and China, Hong Kong SAR. At the other end of the spectrum, least developed countries (LDCs) take up 18 of the 20 bottom positions in the index. The wide gaps between countries with the highest and the lowest level of e-commerce readiness point to the need to address weaknesses in the countries trailing behind in order for further digital transformation to bring inclusive development gains. The COVID-19 pandemic has introduced a new dimension due to quarantine measures that have led to an uptick in e-commerce among those who have the ability to shop online.

About the index

The UNCTAD B2C E-commerce Index measures an economy's preparedness to support online shopping. The index consists of four indicators that are highly related to online shopping and for which there is wide country coverage (Box 1).[1] The extent to which people shop online in a country is highly correlated with the value of the index, with an adjusted R squared value of 0.79 (Figure 1).

The 2021 index includes the same number of economies as the last iteration (152). Data limitations affect compilation of the index. Internet user data for 2019 were limited at the time of index calculation and the latest data on accounts are for 2017 as the pandemic delayed the collection of data for the World Bank's Global Findex database. Hence, changes from the previous edition of the index are primarily influenced by changes in terms of secure servers and postal reliability. Inclusion of additional economies is dependent on the data sources. Account ownership data are generally not available for smaller economies and the postal reliability index does not include some economies. UNCTAD is investigating alternative index compositions with a view to widening the coverage and timeliness of the index.

Box 1: UNCTAD B2C E-commerce index methodology

The index is calculated as the average of four indicators (i.e., each indicator carries the same weight) using data for 2019 or the latest available.

- Account ownership at a financial institution or with a mobile-money-service provider (% of population ages 15+) (Source: World Bank)[2]
- Individuals using the Internet (% of population) (Source: International Telecommunication Union, ITU)[3]
- Postal Reliability Index (Source: Universal Postal Union, UPU)[4]

---

[1] For more information on the methodology see: UNCTAD. 2017. "UNCTAD B2C E-commerce Index 2017." *UNCTAD Technical Notes on ICT for Development*, No. 9.

[2] https://globalfindex.worldbank.org/#data_sec_focus.

[3] https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.

[4] http://www.upu.int/en/the-upu/strategy/2ipd.html.

- Secure Internet servers (per 1 million people) (Source: Netcraft retrieved from World Bank)[5]

Account ownership data are sourced from the World Bank Findex survey, which is carried out every three years. The latest survey data available are for 2017.

Secure Internet servers per 1 million people is normalized with this formula: Log (secure server penetration)-Log (maximum value) / Log (maximum value) - Log (minimum value) *100.

UPU postal reliability data are available for 2015-19, depending on the country. If there are no data for a country in 2019, the previous year's data are used in the UNCTAD index.

At the time of this report, 2019 Internet use data from the ITU were available for only around one third of the countries in the UNCTAD index. In some cases, official statistics have been used to update the data; otherwise the previous year's data are used.

Given revisions to 2018 data since the 2019 index was published, the change in score and rank between this index and that for 2019 is based on the index value based on the revised 2018 data.

Source: UNCTAD.

**Figure 1. Relationship between UNCTAD B2C E-commerce Index 2020 values and online shopping**

Source: UNCTAD.

---

[5] https://databank.worldbank.org/source/world-development-indicators#.
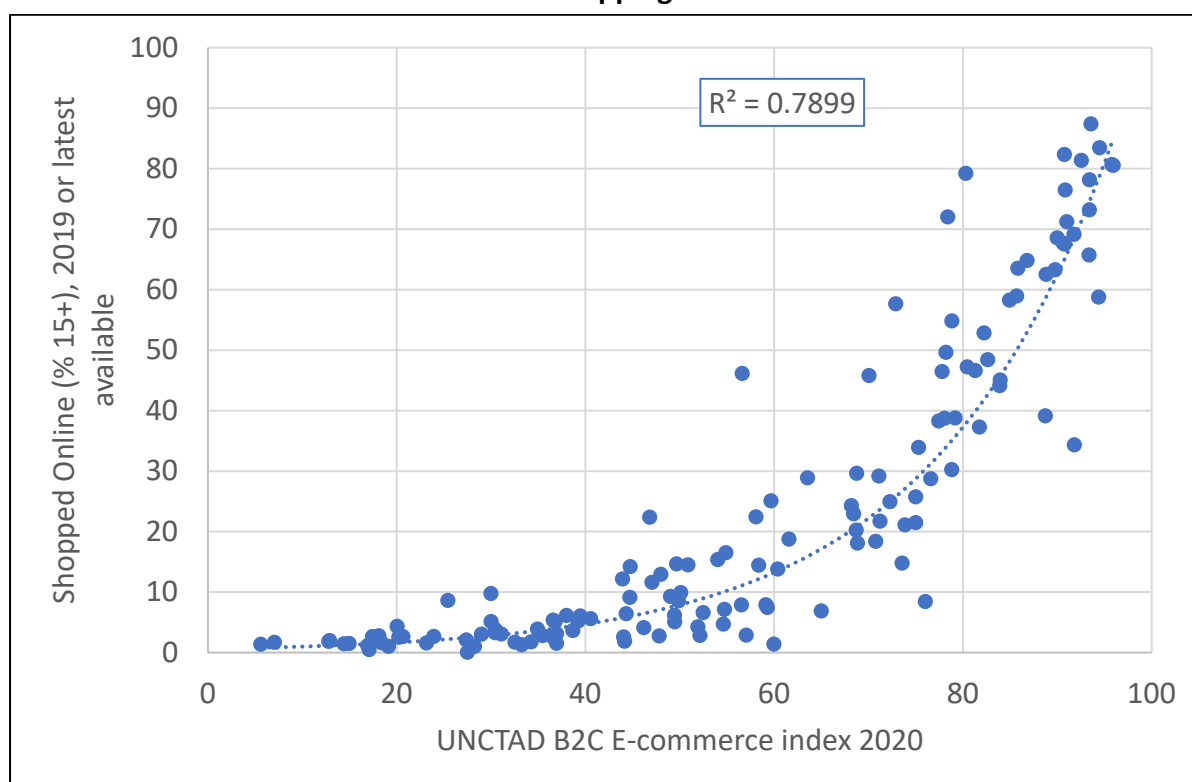
Some 1.5 billion people now shopping online

In 2019, an estimated 1.5 billion people, or 27 per cent of the world's population aged 15 years and older, shopped online (figure 2, left). This represented a 7 per cent increase over 2018. The proportion of those shopping online is much less in countries at low levels of income. While over half the population in high-income countries shopped online the figure was only 2 percent in low-income nations (figure 2, right).

Figure 2. Global online shoppers, 2017-19 and penetration by income group, 2019
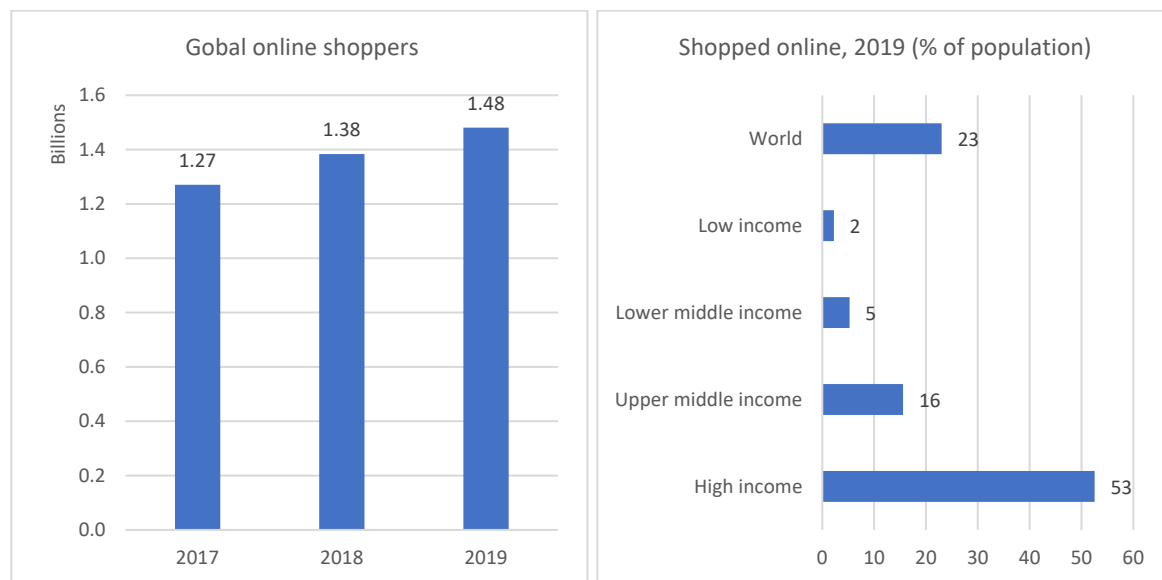
Note: Figures in the right chart refer to unweighted country averages. The weighted figure for the world is 27 per cent.
Source: UNCTAD.

Switzerland climbs to the top of the B2C E-Commerce Index 2020

Similar to the 2019 index, eight of the top ten economies are in Europe (Table 1). Index values are extremely close, with a range of just 4.1 points between first and tenth rank. Switzerland has narrowly displaced the Netherlands as the highest ranked country in the index (Box 2). There was just one change in the composition of the top ten with China, Hong Kong, SAR replacing Australia.

While China and the United States are the world's largest B2C markets, they rank 12th and 55th respectively in the index. One reason they are not ranked higher is that their scale is not factored into the index. Even if the two countries lead in a number of absolute measures they lag in relative comparisons. For instance, Internet penetration in the United States is less than any of the economies in the top 10 while China on this indicator ranks 87th in the world. With regard to online shopping penetration, the United States ranks 12th while China ranks 33rd.

Table 1. Top 10 economies in the UNCTAD B2C E-commerce Index 2020

2020 Rank	Economy	Share of individuals using the Internet (2019 or latest)	Share of individuals with an account (15+, 2017)	Secure Internet servers (normalized, 2019)	UPU postal reliability score (2019 or latest)	2020 Index value	Index value change (2018-19 data)	Rank 2019
1	Switzerland	97	98	92	97	95.9	0.6	2
2	Netherlands	96	100	94	93	95.8	0.1	1
3	Denmark	97	100	100	81	94.5	0.1	6
4	Singapore	89	98	94	97	94.4	-0.3	3
5	United Kingdom	96	96	84	98	93.6	0.1	4
6	Germany	93	99	90	91	93.4	-0.1	9
7	Finland	95	100	88	91	93.4	-0.1	5
8	Ireland	88	95	92	98	93.4	0.7	7
9	Norway	98	100	84	88	92.6	-0.1	8
10	China, Hong Kong SAR	92	95	88	92	91.8	0.3	14

Box 2: Why Switzerland is number one

Landlocked alpine Switzerland with four official languages takes the number one spot on the 2020 UNCTAD B2C e-commerce index. The confederation scores highly across all four dimensions of the index.

- Most of the Swiss population uses the Internet. According to Eurostat, 97 per cent of the population used the Internet in 2019.[6]
- Switzerland has high banking coverage, ranking 11th in the world by the density of bank branches.[7] The 2017 Findex survey found that 98 per cent of the population aged 15 and older had an account, placing it 12th in the world.
- The country ranks 5th among the countries included in the index in secure server density, a proxy for online shops in the country. According to the Swiss Distance Selling Association (ASVAD), there were at least 250 web shops with online sales in the country in 2019.[8] Linguistic affinity also means that the Swiss can easily shop from online stores available in the German, French and Italian languages.[9]
- Switzerland ranks 7th in the world in terms of postal reliability according to the UPU and number one for overall postal development.[10] Statistics from the postal regulator indicate that 99.9 per cent of households have home delivery; 95 per cent of priority packages are delivered within one working day and 96 per cent of other packages within two days; and all of the population is within a twenty minute walk or public transport trip to a postal office.[11] Increased online shopping due to the coronavirus broke records for parcel delivery with the Swiss Post delivering 183 million packages in 2020, up 23 per cent over the previous year (Figure 3). [12]

---

[6] https://ec.europa.eu/eurostat/web/main/data/database.

[7] https://data.worldbank.org/indicator/FB.CBK.BRCH.P5?most_recent_value_desc=true.

[8] GfK. 2020. *Marché Suisse du commerce en ligne 2019*.

[9] Asendia. 2017. *The secrets of e-commerce success in Switzerland*. https://onlineselleruk.com/wp/wp-content/uploads/2017/10/Asendia_secrets_of_ecommerce_success_in_switzerland_whitepaper.pdf.

[10] Universal Postal Union (UPU). 2020. *Postal Development Report 2020*. https://www.upu.int/UPU/media/upu/publications/2020-Postal-Development-Report.pdf.

[11] Commission fédérale de la poste (PostCom). 2020. *Rapport annuel 2019*.

[12] Swiss Poste. 2021. "Volume des colis 2020 – septième record consécutif."*News*, 19 January. https://www.post.ch/fr/notre-profil/actualites/2021/volume-des-colis-2020.

Figure 3: Swiss Post, packages delivered
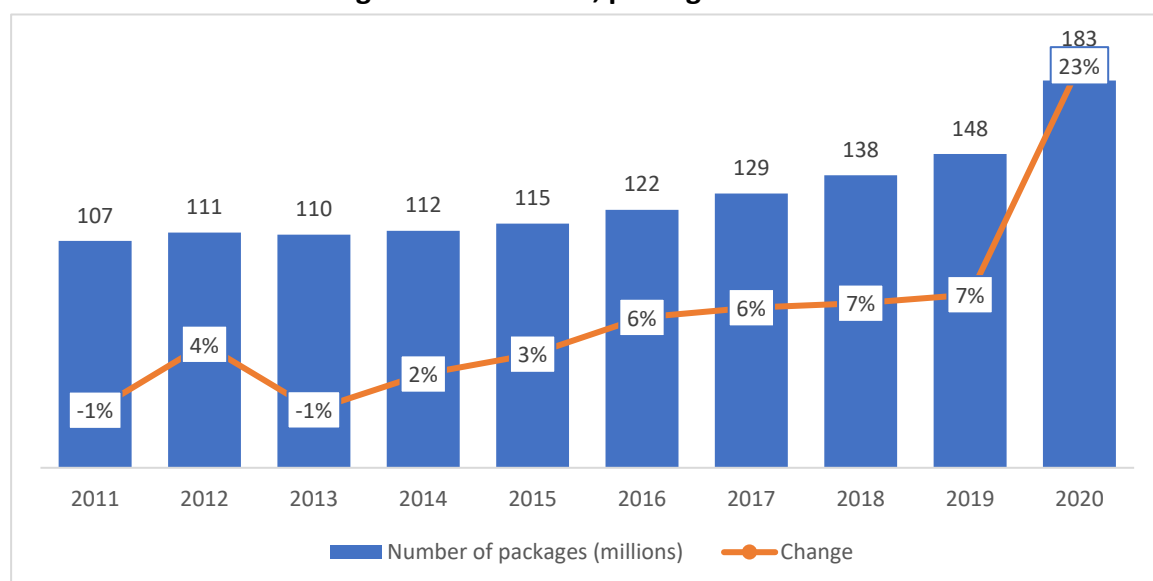
Source: Swiss Post.

Switzerland's high ranking translates into demonstrable results. Just over three quarters of the country's Internet users shopped online in 2019, or some 4.9 million people aged 15 and older.[13] According to ASVAD, online goods sales were CHF 10.3 (US$ 10.4) billion in 2019, equivalent to 11.2 per cent of retail sales.[14] Notably 19.4 per cent of those sales were to online shoppers from abroad.

In summary, high performance across all indicators, particularly delivery reliability, drives the high Swiss ranking and reflect robust underlying conditions for development of B2C e-commerce. In addition, Switzerland stands out for its wealth of e-commerce related statistics from the national statistical office, postal sector regulator and operator, and industry association.

Source: UNCTAD.

Asian nations dominate the top positions among developing economies

All of the top ten developing economies in the 2020 index are from Asia, and all are upper middle-income or high-income economies (Table 2). Unlike the global top ten, the range of index values is wider, with a 24-point difference between first (Singapore) and tenth (Oman). Compared to the 2019 index, there was only one change in the composition of this group: Turkey dropped out and was replaced by Oman. The biggest improvement in the index value was noted for Malaysia.

The largest increases in index scores were noted for some developing countries. The top four were Algeria, Ghana, Brazil and Lao PDR, which all saw their scores surge by at least five points largely due to significant improvements in postal reliability.

---

[13] Office fédéral de la statistique (OFS), "Omnibus 2019 (OMN2019): Enquête sur l'utilisation d'internet." https://www.bfs.admin.ch/bfs/fr/home/statistiques/culture-medias-societe-information-sport/enquetes/omn2019.html.

[14] GfK. 2020. *Marché Suisse du commerce en ligne 2019*.

Table 2: Top 10 developing economies in the UNCTAD B2C E-commerce index 2020

2020 Rank	Economy	Share of individuals using the Internet (2019 or latest)	Share of individuals with an account (15+, 2017)	Secure Internet servers (normalized, 2019)	UPU postal reliability score (2019 or latest)	2020 Index value)	Index value change (2019-20 data)	Rank 2019
4	Singapore	89	98	94	97	94.4	-0.3	3
10	China, Hong Kong SAR	92	95	88	92	91.8	0.3	14
18	Korea, Republic of	96	95	68	100	89.8	0.0	19
30	Malaysia	84	85	71	85	81.3	1.5	31
37	United Arab Emirates	99	88	61	64	78.2	0.0	28
42	Thailand	67	82	59	97	76.0	0.5	48
44	Iran (Islamic Republic of)	70	94	57	79	75.0	-1.5	45
49	Saudi Arabia	96	72	43	78	72.3	0.0	49
50	Qatar	100	66	50	73	72.1	0.0	47
54	Oman	92	74	43	73	70.6	0.0	60

Least developed countries are trailing the most in e-commerce readiness

Countries at the opposite end of the index are trailing the most behind in terms of the readiness to engage in and benefit from e-commerce. Out of the 20 economies with the lowest value in the 2020 index, 18 are least developed countries (LDCs), with Congo and Syrian Arab Republic being the only non-LDCs in this group.

It is against this background that UNCTAD has been undertaking 25 Rapid eTrade Readiness Assessments of LDCs in the past couple of years.[15] These assessments seek to provide an analysis of what needs to be addressed in various policy areas in order to increase the capacity of countries to participate effectively in e-commerce. For most LDCs, these assessments can help to overcome a significant market failure: the fact that LDCs have lacked the information and awareness to formulate effectively their needs for development assistance in the area of e-commerce, and that donors as a result have witnessed limited demand for such assistance.

Table 3: LDCs that have benefitted from an eTrade Readiness Assessment, February 2021

Afghanistan	Cambodia	Madagascar	Niger	Tanzania
Bangladesh	Kiribati	Malawi	Togo	Tuvalu
Benin	Lao PDR	Mali	Samoa	Uganda
Bhutan	Lesotho	Myanmar	Senegal	Vanuatu
Burkina Faso	Liberia	Nepal	Solomon Islands	Zambia

---

[15] For a list of published assessments to date, see https://unctad.org/en/Pages/Publications/E-Trade-Readiness-Assessment.aspx .

Regional rankings

Table 4 shows the highest ranked economies in each region while Table 5 shows the average values for each region.

Table 4. Top 10 developing and transition economies in the UNCTAD B2C E-commerce Index 2020, by region

East, South & Southeast Asia	West Asia	Africa	Latin America and the Caribbean	Transition economies
Singapore	United Arab Emirates	Mauritius	Costa Rica	Belarus
China, Hong Kong SAR	Saudi Arabia	South Africa	Chile	Russian Federation
Korea, Republic of	Qatar	Tunisia	Brazil	Serbia
Malaysia	Oman	Algeria	Dominican Republic	Georgia
Thailand	Turkey	Ghana	Colombia	Ukraine
Iran (Islamic Republic of)	Kuwait	Libya	Uruguay	North Macedonia
China	Lebanon	Kenya	Jamaica	Republic of Moldova
Mongolia	Bahrain	Nigeria	Trinidad and Tobago	Kazakhstan
Viet Nam	Jordan	Morocco	Peru	Azerbaijan
India	Iraq	Senegal	Argentina	Bosnia and Herzegovina

Table 5 shows that there are wide regional differences. In the case of Internet access, less than a third of the population in Africa uses the Internet compared to three quarters in Western Asia. The relative strengths and weaknesses generally differ. East, South and Southeast Asia tends to have fairly equivalent values across the four indicators; the only indicator being below the world average is Internet use. In Latin America and the Caribbean, the main opportunities for improvement are in postal reliability. To facilitate more inclusive e-commerce, African countries would benefit from catching up in all policy areas. Compared with the 2019 index, there is no global change in the index value. The only regional value that improved was Latin America and the Caribbean, which is the region that is studied in more detail below.

Table 5. Regional values for the UNCTAD B2C E-commerce index, 2020

	Share of individuals using the Internet	Share of individuals with an	Secure Internet servers	UPU postal reliability		2019 Index